

The FCC’s Net Neutrality Rules and Mobile Networks: Who Really Rules the Air?

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I. INTRODUCTION

Imagine that you use Facebook as your primary means to stay in touch with family and friends. You are constantly on the go and your mobile phone is how you prefer to stay connected to Facebook. You check it in the morning, during breaks, at lunch, on the train home, and even before bed. And then, one day, Facebook will not load. You receive an error message where your friends’ status updates should be. In place of your Facebook wall, the number to your carrier’s customer service department appears. Your mobile broadband provider has permanently blocked your access to Facebook unless you are willing to pay an additional monthly fee. In this example, Facebook is representative of any site or service you can access

from your mobile phone.¹ Your mobile broadband provider has the power to decide what sites or services you use and can charge you extra to access the ones you use most. This could be the future of the mobile internet. It does not, however, have to be this way. Mobile broadband can remain an open and free forum for ideas, speech, and innovation if enforceable rules are adopted to protect it.

Whether it is used for important business transactions or simply to catch up on the news of the day, high-speed broadband internet has become an indispensable resource to many.² Nearly three-quarters of American adults use the Internet.³ Americans spend nearly as much money each year on the ability to move information over cable and telephone lines as they do on gas and heating oil.⁴ Of the many ways to access the Internet, people are increasingly turning to their mobile phones. Recently, mobile internet access has experienced even more explosive growth than fixed internet access and has become the fastest growing broadband segment.⁵ As the voice services market becomes saturated, wireless carriers are turning to broadband to drive growth and bolster their bottom lines.⁶ Mobile broadband is expected to become the primary means by which people access the Internet in the near future.⁷ Most internet users are accustomed to the free and open character of the Internet, which allows them to access any site or content they choose, without interference from their internet service provider (ISP) (such as AT&T, Comcast, or Verizon). Those free and open principals, however, are at a crossroads. Service providers have begun to block sites and services, limiting what users are able to access without their

1. Siva Vaidhyanathan, *Google's Net Neutrality Stance Gives Net's Future to Corporations: By Protecting Short Term Interests, Google is Acting Like Just Another Company*, MSNBC (Aug. 8, 2010, 4:09 PM), http://www.msnbc.msn.com/id/38645475/ns/technology_and_science-tech_and_gadgets.

2. Edward B. Mulligan V, *Derailed by the D.C. Circuit: Getting Network Management Regulation Back on Track*, 62 FED. COMM. L.J. 633, 634 (2010).

3. Lee Rainie, *Internet, Broadband, and Cell Phone Statistics*, PEW RES. CENTER 1 (Jan. 2010), http://www.pewinternet.org/~media/Files/Reports/2010/PIP_December09_update.pdf.

4. Tim Wu, *OPEC 2.0*, N.Y. TIMES, (July 30, 2008), <http://www.webcitation.org/5eMzmLARb>.

5. Commissioner Meredith Atwell Baker, *Advancing Consumer Interests Through Ubiquitous Broadband: The Need for a New Spectrum*, 62 FED. COMM. L.J. 1, 5 (2010).

6. *See id.* at 5 (noting that eighty-five percent of Americans own cell phones); *2nd Quarter 2010 Earnings Conference Call*, VERIZON (July 23, 2010), <http://news.vzw.com/investor/20100723.pdf> (showing wireless data as the second largest revenue growth segment); *2nd Quarter 2010 Investor Briefing*, AT&T (July 22, 2010), http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_10_IB_FINAL.pdf (stating in the introduction that the quarterly financial results were driven by growth in mobile broadband).

7. Baker, *supra* note 5 (noting that by the year 2020, mobile broadband access will be the primary method to connect to the internet for most users).

knowledge or consent.⁸ These actions have fueled the debate about whether the Internet should remain free and open, and if so, how to effectively regulate it. They have also led to the adoption of net neutrality rules by the Federal Communications Commission (FCC).⁹

There are two separate and distinct fronts involved in the debate about preserving an open internet. The first is the traditional or wireline broadband, such as a typical home or work computer. The second is mobile broadband, which is accessed through a wireless cellular network.¹⁰ The two different fronts pose unique challenges and issues,¹¹ but ultimately should be regulated in the same manner. Some organizations have already recognized the need for wireline net neutrality.¹² Wireless networks, however, have not been given the same level of protection that wireline networks are afforded.¹³ In order to truly preserve the openness and freedom of the Internet, mobile broadband networks must be protected.

This Comment argues that mobile networks must be given the same protections that are afforded to fixed networks to ensure the future of a free, open, innovative, and competitive Internet. Additionally, it maintains that the recently-adopted FCC rules will be ineffective in this capacity for two reasons. First, the rules adopted are unenforceable because the FCC lacks jurisdiction over network management. Second, the rules as adopted are inadequate to protect mobile network users. Failure to apply a rule prohibiting unreasonable discrimination and a full no blocking rule to mobile network operators will prove fatal to the effectiveness of the rules as mobile broadband is rapidly becoming the primary method of accessing the Internet.

Part II of this comment describes what net neutrality is. Part III explains why net neutrality is important to consumers. Part IV discusses the

8. See *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

9. The FCC's net neutrality rules were recently codified in the Code of Federal Regulations at 47 CFR § 8.

10. *Verizon-Google Legislative Framework Proposal*, http://docs.google.com/viewer?url=http%3A%2F%2Fwww.google.com%2Fgoogleblogs%2Fpdfs%2Fverizon_google_legislative_framework_proposal_081010.pdf (last visited Sept. 30 2010).

11. *Id.* (stating that wireless networks have “unique technical and operational characteristics”).

12. See *id.* (explaining Verizon and Google's joint proposal protecting wireline net neutrality); Gary Bensinger, *AT&T Says Google-Verizon Plan 'Reasonable'*, BUSINESSWEEK (Aug. 11, 2010, 2:58 P.M.) <http://www.businessweek.com/news/2010-08-11/at-t-says-google-verizon-internet-plan-reasonable.html> (supporting the Verizon-Google Plan).

13. *Report and Order In the Matter of Preserving the Open Internet*, FED. COMM. COMMISSION (Dec. 23, 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf [hereinafter *Internet Rules*]. The rules create two different standards—one set of rules for fixed broadband providers, and another much less stringent set of rules for mobile broadband providers. *Id.*

regulatory scheme for net neutrality that existed prior to the adoption of the FCC's net neutrality rules and will persist after the rules are invalidated. Part V argues that the rules adopted by the FCC are unenforceable because they lack an adequate legal foothold. Part VI provides an overview of the mobile broadband marketplace, and discusses each rule and how it applies to mobile broadband networks. It goes on to argue that the exclusion of mobile broadband networks from some of the rules makes them inadequate to protect mobile broadband users.

II. WHAT IS NET NEUTRALITY?

Net neutrality refers to the free and open principles that have fostered the explosive growth of the Internet.¹⁴ It is a concept that nearly everyone has experienced but almost no one appreciates. Net neutrality allows internet users to access internet content, applications, and services of their choice without interference from internet service providers.¹⁵ In simpler terms, a user can visit any legal website or use any legal internet service or application they choose. Until recently, due to the absence of net neutrality regulations, internet service providers could freely block, degrade, or prioritize internet traffic.¹⁶ How, or if, content was delivered was at the discretion of the ISP, giving it complete control over what internet users could access.¹⁷ While blocking has not yet been widely used, if these practices are allowed to grow and evolve, they will fundamentally change the way the Internet works.

Net neutrality is credited for the explosive growth and innovation of the Internet and internet-based applications and services.¹⁸ In a short period of time, the Internet has grown from a small science experiment into a massive global system that hundreds of millions of people around the world use, partly because it is an open and free forum for speech.¹⁹ Many ground-

14. *Id.* at 3 (“[T]he Internet has thrived because of its freedom and openness.”).

15. See *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd. 14986, 14987-88 (2005) [hereinafter *Internet Policy Statement*].

16. See *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) (stating that although they have been used, the practices of discrimination and blocking have not been widely employed by ISPs to this point).

17. See Carol M. Hayes, *Content Discrimination on the Internet: Calls for Regulation of Net Neutrality*, 2009 U. ILL. J.L. TECH & POL’Y 493, 512 (2009); Robert A. Penchuk, Comment, *Unleashing the Open Mobile Internet*, 10 HIGH TECH. L. J. 74, 79 (2009) (“Advocates of network neutrality argue...that a handful of providers are unfairly controlling the terms of access.”); *Engadget Explains Net Neutrality-And Our Full Interview with Tim Wu!*, ENGADGET (Sept. 24, 2010), <http://www.engadget.com/2010/09/24/engadget-explains-net-neutrality-and-our-full-interview-with/> [hereinafter *Engadget Explains Net Neutrality*].

18. Baker, *supra* note 5; see also *Internet Rules*, *supra* note 13, at 3.

19. See *Internet Rules*, *supra* note 13, at 3.

breaking services that now seem indispensable have been developed as a result of this rapid growth, including: e-mail, voice-over-internet-protocol (VOIP), and peer-to-peer networks, just to name a few.²⁰ If neutrality is not preserved, innovation of new internet applications and services will be suppressed.²¹ There are two ISP practices that especially trouble advocates of an open internet. The first is blocking or discriminating against traffic by the ISP, based on its content.²² The second is paid prioritization of internet traffic, where ISPs place some traffic into a new “fast lane” for those who pay and relegate everyone else to the “slow lane.”²³

A. DISCRIMINATION AND BLOCKING

“Discrimination,” or “blocking,” is when an internet service provider (ISP) intentionally interferes with a user’s traffic either by slowing down the delivery of information to the user’s computer or completely denying access to the site or service altogether.²⁴ Discrimination or blocking of internet traffic is not always a bad thing. There are times when an ISP needs to manage the traffic on its network in order to prevent one user from degrading other users’ internet experiences.²⁵ Network management is a practice that, if performed correctly, can benefit users. When it is misused, however, it can have serious repercussions.

The explosive rate of broadband adoption and the introduction of new, bandwidth-intensive services have substantially increased the demands placed on service providers’ network infrastructures.²⁶ This increased demand for bandwidth can push the limits of an ISP’s network capabilities.²⁷ Different applications and services use varying amounts of bandwidth.²⁸ For example, downloading a high-definition video requires substantially more bandwidth than just browsing the web or checking e-mail. In order to

20. Penchuk, *supra* note 17, at 81.

21. See Engadget Explains Net Neutrality, *supra* note 17.

22. Hayes, *supra* note 17, at 512-13.

23. *Id.* at 500.

24. Adam Clay, *Unlocking the Wireless Safe: Opening up the Wireless World for Consumers*, 61 FED. COMM. L.J. 715, 721 (2009) (quoting Cheryl A. Tritt, *Telecommunications Future*, 920 PLI/Pat 133, 138-39 (2007)) (Net neutrality “prevents . . . ‘operators from blocking or impairing users’ access to lawful Internet sites and services”); see Hayes, *supra* note 17, at 499-500 (discussing AT&T’s blockage of anti-Bush lyrics at Lollapalooza and Verizon’s block of a pro-choice organization’s opt-in text messages).

25. Mulligan, *supra* note 2, at 637 (discussing the need for ISPs to manage traffic due to network congestion).

26. Penchuk, *supra* note 17, at 75 (noting that some applications use substantially more bandwidth than others and internet service providers must manage their networks as a result).

27. *Id.*

28. *Id.*

counteract the effects of demand exceeding supply, ISPs must engage in network management practices.²⁹ One commentator likened the issue of network management to a three-lane-highway carrying traffic four vehicles across.³⁰ In order for cars to move forward, one of the cars, typically the largest, must be slowed.³¹ In the network management context, the largest car would be the user who is consuming the most bandwidth. This network management practice attempts to provide a uniform customer experience to all of a service provider's customers by preventing one individual from consuming too much bandwidth and degrading other users' traffic.³²

The problems arise when an ISP is not managing traffic based on the amount of bandwidth being used, but rather what site consumers have chosen to visit or what service or applications they are using, independent of the traffic conditions on the network.³³ The ability of ISPs to discriminate against traffic based on the site or service being accessed has serious implications for consumers. This issue was brought to the general public's attention when it was discovered that Comcast was discriminating against peer-to-peer networks, blocking customers' ability to access those sites and their associated services.³⁴ This type of network management practice restricts users' freedom to choose what sites and services they visit or use. It allows broadband service providers to become the gatekeepers to the Internet because it gives them free reign to screen or block traffic in any manner they choose.³⁵ Some opponents of net neutrality regulation use a market-based model which argues that by allowing traffic discrimination, more internet service providers will enter the marketplace and encourage innovation and competition.³⁶ ISPs should not, however, be able to manage traffic based upon the content. Network management practices should be limited to a method based only on the technical demands being placed on the network, not the site or service being used.

29. Mulligan, *supra* note 2, at 637.

30. *Id.*

31. *Id.*

32. *Id.*

33. *Id.*

34. Mulligan, *supra* note 2; *see also* Comcast Corp. v. FCC, 600 F.3d 642 (D.C. Cir. 2010).

35. *See Internet Rules*, *supra* note 13, at 3 (noting that broadband providers have blocked or degraded traffic without disclosing it to customers, in spite of the FCC's Internet Policy Statement).

36. Hayes, *supra* note 17 (theorizing that if service providers are allowed to discriminate against traffic freely, it will encourage the innovation of alternatives to DSL and Cable services).

B. PAID PRIORITIZATION

In addition to traffic discrimination, paid prioritization is a concern among net neutrality proponents.³⁷ Paid prioritization is defined as “preferential treatment of some Internet traffic over other traffic” based on a content provider, such as Google, paying the service provider to deliver its sites and services faster than its competitors.³⁸ If adopted, the model would create a fast lane and a slow lane for internet traffic.³⁹ Paid prioritization would effectively “close the open Internet.”⁴⁰ Large content providers would be able to outspend smaller competitors whose traffic would be degraded, essentially stifling competition.⁴¹ Small companies would be stuck in the slow lane, making it difficult to gain market share because consumers would be drawn to the faster services.⁴² Furthermore, a large company could purchase a virtually exclusive license with an ISP to deliver its traffic, effectively precluding competition.⁴³ Paid prioritization is contrary to the fundamental principles of the open and free Internet.⁴⁴ This model would also be detrimental to consumers because content providers are likely to pass along to consumers the costs of prioritizing their content.⁴⁵ Service providers, on the other hand, would receive a windfall because they would be paid by both the consumer and the content provider for delivering the same content they would be delivering anyway.

III. WHY IS NET NEUTRALITY IMPORTANT?

Net neutrality is one of the most important issues of the twenty-first century. It has been argued that net neutrality is so important that it should be guaranteed to internet users.⁴⁶ Proponents of net neutrality assert three

37. *House Dems: FCC Must Reject Google-Verizon Deal to Ensure Net Neutrality*, HUFFINGTON POST (Aug. 17, 2010), http://www.huffingtonpost.com/2010/08/17/house-dems-fcc-must-rejec_n_684778.html?igoogle=1.

38. Richard S. Whitt, *Evolving Broadband Policy: Taking Adaptive Stances to Foster Optimal Internet Platforms*, 17 COMM'LAW CONSP'CTUS 417, 460 (2009).

39. Hayes, *supra* note 17, at 500-01.

40. *House Dems: FCC Must Reject Google-Verizon Deal to Ensure Net Neutrality*, *supra* note 36.

41. *Id.*

42. Hayes, *supra* note 17, at 501.

43. *Id.* at 513.

44. *Id.*

45. See *Net Neutrality, "Paid Prioritization," and "Network Management" – Part I*, ECON. & TECH. INC. (Sept. 2010), <http://www.econtech.com/newsletter/september2010/september2010a2.php> (discussing the lack of competition among broadband providers as a primary reason that costs to consumers will escalate).

46. *Engadget Explains Net Neutrality*, *supra* note 17 (arguing that net neutrality should be a public duty).

principle arguments in support of their position that there is currently a need for effective regulation: (1) the low number of market participants will ultimately result in competition being stifled, (2) unreasonable discrimination or blocking of internet traffic will discourage innovation, and (3) free speech will be suppressed if traffic can be interfered with by service providers.⁴⁷ The potential consequences of any one of these scenarios being realized is evidence of the need for net neutrality regulation.

The first argument by net neutrality proponents is that competition will be stifled by the low number of market participants. This argument is premised on service providers acting as an oligopoly, controlling the market and discouraging competition.⁴⁸ Broadband providers have been likened to the Organization of the Petroleum Exporting Countries (OPEC); it sets the prices high to guarantee a large profit and then makes investments in its infrastructure that serve to bolster its natural monopolies, thereby exacerbating barriers to market entry.⁴⁹

The second argument, that innovation will be discouraged by traffic interference, asserts that “[d]iscriminatory access would stifle Internet development” because ISPs are able to discriminate against competing content or services.⁵⁰ Much of the explosion of innovation around internet services and content was a product of the non-discriminatory nature of the Internet.⁵¹ If service providers are allowed to discriminate freely, they could block services that competed with their own.⁵² Without easy access to the marketplace, entrepreneurs and innovators will be discouraged from developing new products and services.⁵³

Finally, and most importantly, proponents of net neutrality argue that it is essential to maintaining free speech.⁵⁴ If neutrality is permitted to evaporate, allowing ISPs and content providers to control what content or information is available to users, a very potent forum of free speech will be lost.⁵⁵ Amateur speech will be the most significantly impeded because the Internet is the preeminent forum for such ideas to be disseminated rapidly and effectively to the masses.⁵⁶ Commercial content, similar to commercial programming, will dominate the Internet landscape, as it does in the televi-

47. Penchuk, *supra* note 17, at 81.

48. *Id.*

49. Wu, *supra* note 4.

50. Penchuk, *supra* note 17, at 81.

51. *Engadget Explains Net Neutrality*, *supra* note 17.

52. *Id.* (discussing the ability of a carrier to block Skype because it offered voice services).

53. Hayes, *supra* note 17, at 512-13 (discussing net neutrality supporters’ position that discrimination will make it more difficult for new companies to break into the market).

54. Penchuk, *supra* note 17, at 82.

55. *Engadget Explains Net Neutrality*, *supra* note 17.

56. *Id.*

sion marketplace.⁵⁷ The internet service providers and a few large content providers, such as Apple and Google, will have the ability to determine what content users can access on the Internet.⁵⁸ Similar to television where only a few large broadcasters control all the programming, anything that is not a commercial production, such as amateur speech, will become scarce and increasingly difficult to access.⁵⁹ The ISPs and their affiliates will be able to create a “walled garden” where they direct users’ traffic among each other’s sites.⁶⁰

IV. REGULATORY SCHEME PRIOR TO THE ADOPTION OF THE FCC’S NET NEUTRALITY RULES

Currently, there are no federal laws in place that directly address network management or net neutrality.⁶¹ Congress has been unable to gain enough support to pass net neutrality legislation.⁶² A number of bills have been introduced but none have been adopted.⁶³ The Federal Communications Commission (FCC), the agency responsible for regulating wired and radio communications, is the agency likely to be delegated authority should Congress act.⁶⁴ The FCC can exercise its authority to regulate communications pursuant to direct statutory delegation or through its ancillary jurisdiction⁶⁵ if it is “reasonably ancillary to the . . . effective performance of its statutorily mandated responsibilities.”⁶⁶ Congress has not statutorily delegated to the FCC the authority to regulate the Internet.⁶⁷ Further, the FCC has effectively precluded itself from using its ancillary jurisdiction over cable internet services⁶⁸ and DSL (Digital Subscriber Line) services,⁶⁹ clas-

57. *Id.*

58. *Id.*

59. *Id.*

60. Penchuk, *supra* note 17, at 82.

61. Mulligan, *supra* note 2, at 635.

62. Hayes, *supra* note 17, at 501-03.

63. *Id.* (discussing multiple bills and amendments that have been introduced and subsequently faltered).

64. 47 U.S.C. § 151 (2006).

65. Comcast Corp. v. FCC, 600 F.3d 642, 645 (D.C. Cir. 2010).

66. *Id.* at 644 (quoting Am. Library Ass’n v. FCC, 406 F.3d 689, 692 (D.C. Cir. 2005)).

67. Comcast, 600 F.3d. at 645-46 (stating that the FCC “does not claim that Congress has given it express authority to regulate . . . Internet service”). Because there has been express congressional delegation, the Commission attempted to rely on its ancillary authority as grounds for its jurisdiction over the internet. *Id.* The court rejected the FCC’s ancillary jurisdiction as grounds for regulating the internet. *Id.* at 644.

68. Inquiry Concerning High-Speed Access To The Internet Over Cable And Other Facilities, 17 FCC Red. 4798, 4802 (2002).

sifying both as information services rather than telecommunications services. In 2005, the FCC adopted an Internet policy statement that contained principles the FCC determined were essential for the continuation of an open and competitive Internet, believing it would be sufficient to protect the Internet.⁷⁰ The core principles espoused in the policy statement are that consumers are entitled to access the lawful content, services, and applications of their choosing and they can attach any legal device that does not harm the network.⁷¹ The consequence of the FCC's decision to classify broadband cable and DSL as information services is that it leaves service providers free to discriminate against traffic on their networks without any recourse available to paying customers.⁷² The FCC soon realized that relying solely upon a policy statement was not adequate to protect the freedom of the Internet.

The Commission's poor choice to classify broadband as an information service and the lack of its policy statement's effectiveness were revealed in *Comcast Corp. v. FCC*.⁷³ After receiving a complaint against Comcast, the nation's second largest ISP,⁷⁴ for blocking users' access to peer-to-peer (P2P) sites, the FCC attempted to exercise its ancillary jurisdiction to regulate Comcast's network management practices⁷⁵ using a congressional statement that it is the policy of the United States to encourage Internet development as its jurisdictional basis.⁷⁶ The Commission determined that Comcast's actions in blocking legal internet traffic were contrary to the principles established in the Commission's Internet Policy Statement and frustrated the purposes of the asserted congressional policy.⁷⁷ Comcast agreed to change its network management practices and the Commission ordered a disclosure detailing the progression of the changes.⁷⁸ Although Comcast agreed to change how it managed its network, it ap-

69. Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, FED. COMM. COMMISSION, 10 (Sept. 23, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf.

70. Internet Policy Statement, *supra* note 15, at 14988.

71. *Id.*

72. Penchuk, *supra* note 17, at 80-81.

73. *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

74. *2nd Quarter 2010 Results*, COMCAST, http://files.shareholder.com/downloads/CMCSA/1009393692x0x390362/49bc4416-c5b1-4191-b0e9-2446d0639502/Comcast_Q2Release_7.27.10.pdf (last visited Oct. 8, 2010) (stating that Comcast has over sixteen million high speed internet customers).

75. Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-To-Peer Applications, 23 FCC Rcd. 13028 (2008) [hereinafter *Comcast Order*].

76. *Comcast*, 600 F.3d at 651.

77. *Id.*; Internet Policy Statement, *supra* note 15, at 14988.

78. *Comcast*, 600 F.3d at 645.

pealed the order to the District of Columbia Circuit Court.⁷⁹ The court vacated the order finding that the authority to regulate network management was not delegated to the FCC by Congress⁸⁰ and did not fall within the Commission's ancillary jurisdiction, because cable broadband was classified as an information service rather than a telecommunications service.⁸¹ The court reiterated the position that policy statements do not carry the force of law and invalidated the Commission's ancillary jurisdiction justification and its order in its entirety.⁸²

The *Comcast* decision left a vacuum where regulations for network management should exist.⁸³ There are multiple agencies that could regulate net neutrality, but the FCC is the most likely to end up doing so.⁸⁴ There are two practical ways by which the FCC could establish jurisdiction over broadband internet services and, by implication, net neutrality.⁸⁵ First, the FCC could wait for Congress to statutorily delegate the Commission the direct authority to do so.⁸⁶ Given the inability to garner even moderate support for anything related to net neutrality in Congress, however, statutory delegation is unlikely to occur anytime soon.⁸⁷ Second, the FCC could reclassify cable and other broadband services so they fall under its statutory delegations as they currently exist.⁸⁸ This is the most practical option.

The FCC has the ability to autonomously reclassify cable and DSL services as telecommunications services instead of information services, bringing them back under its direct regulatory authority.⁸⁹ The Supreme Court held that the "Commission is free within the limits of reasoned interpretation to change course if it adequately justifies the change," referring to the FCC's classification of cable and DSL broadband as information services.⁹⁰ Additionally, reclassification requires very little involvement from outside entities.⁹¹ If the FCC were to establish jurisdiction over broadband internet by reclassifying cable and DSL, it could then begin regulating the

79. *Id.*

80. *Id.* at 661.

81. *Id.* at 645.

82. *Id.* at 644.

83. See Mulligan, *supra* note 2, at 635.

84. Hayes, *supra* note 17, at 503-05 (discussing the smaller role of the Federal Trade Commission in regulating net neutrality).

85. Mulligan, *supra* note 2, at 650-51.

86. *Id.*

87. See Cecilia King, *Waxman Says Net Neutrality Bill Dead, FCC Should Assert Regulatory Authority*, WASH. POST (Sept. 29, 2010, 5:02 PM), http://voices.washingtonpost.com/posttech/2010/09/rep_waxman_says_net_neutrality.html.

88. *Id.*

89. See *Nat'l Cable and Telecomm. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 1001 (2005).

90. *Id.*

91. Mulligan, *supra* note 2, at 635.

network management practices of service providers to ensure the Internet remains a free and open environment that promotes innovation and competition in accordance with the Commission's policy statement.⁹² The Commission, however, declined to follow either of the practical solutions. Instead, in response to the *Comcast* decision, it adopted net neutrality rules that are both unenforceable and ineffective.⁹³

V. THE FCC'S NET NEUTRALITY RULES AND WHY THEY ARE NOT LEGALLY ENFORCEABLE

On December 21, 2010, the Federal Communications Commission voted three to two, adopting net neutrality rules.⁹⁴ The rules adopted by the FCC are intended to be high-level "rules of the road"⁹⁵ The Order consists of three general rules. The first rule is transparency.⁹⁶ It requires that broadband service providers disclose their network practices, performance characteristics, and commercial terms for consumers, the FCC, and third parties.⁹⁷ Second, the FCC adopted a No-Blocking rule.⁹⁸ The No-Blocking Rule prevents fixed broadband providers from blocking lawful content, applications, services, and non-harmful devices and also prevents mobile operators from blocking lawful websites, voice, or video telephony services that compete with its own offerings.⁹⁹ Third, the Commission adopted a rule prohibiting fixed broadband providers from unreasonable discrimination.¹⁰⁰ This rule allows for ISPs to engage in reasonable network management, but prevents them from discriminating against or degrading traffic from sites or services for other reasons, such as paid prioritization.¹⁰¹ Each individual rule is discussed in more detail in Part VI of this Comment. The net neutrality rules adopted by the FCC are unenforceable because the

92. *Id.*

93. *Internet Rules*, *supra* note 13.

94. Press Release, FCC Acts to Preserve Internet Freedom and Openness, Fed. Comm. Commission (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303745A1.pdf [hereinafter FCC Press Release] (stating that Commissioner Genachowski with Commissioners Copps and Clyburn voted to approve the rules while Commissioners Baker and McDowell voted against them).

95. Chairman Julius Genachowski Statement on Preserving Internet Freedom and Openness, FED. COMM. COMMISSION, 1 (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303746A1.pdf [hereinafter Genachowski Statement].

96. *Internet Rules*, *supra* note 13, at 32.

97. *Id.* at 32-37.

98. *Id.* at 37.

99. *Id.* at 38, 55.

100. *Id.* at 40.

101. *Internet Rules*, *supra* note 13, at 40.

Commission lacks legal authority to establish the rules.¹⁰² The absence of legal grounds to adopt the rules is recognized by both dissenting Commissioners¹⁰³ and even appears to be questioned by Commissioners who voted in favor of adopting the rules.¹⁰⁴ The majority relied upon a large number of legal grounds to attempt to establish its jurisdiction and authority to adopt the Order.¹⁰⁵ The Order uses many different legal grounds to compensate for the lack of a quality footing.¹⁰⁶ The Order, however, focused most of its attention on Section 706 of the 1996 Telecommunications Act, and therefore will be the focus of this section.¹⁰⁷

Section 706 of the 1996 Telecommunications Act directs the FCC to “encourage the deployment of ‘advanced telecommunications capability,’” including broadband internet access.¹⁰⁸ Section 706 was also the thrust of the Commission’s grounds for jurisdiction in the *Comcast* decision.¹⁰⁹ In *Comcast*, the court expressly rejected the contention that Section 706 conferred authority to the FCC to regulate network management, relying on a previous FCC order (Advanced Services Order)¹¹⁰ that interpreted Section 706 not to be an independent grant of authority.¹¹¹ The court held that Section 706 could not be used to bring something under ancillary jurisdiction absent some specific delegated authority already within the Act.¹¹² The

102. Dissenting Statement of Commissioner Meredith Attwell Baker, FED. COMM. COMMISSION, 9-13 (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303746A5.pdf [hereinafter Baker Statement] (discussing the reasons the FCC lacks legal authority).

103. *Id.*; Statement of Commissioner Robert M. McDowell, FED. COMM. COMMISSION, 4-6 (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303746A3.pdf [hereinafter McDowell Statement].

104. Statement of Commissioner Michael J. Copps Concurring, FED. COMM. COMMISSION, 5 (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303746A2.pdf [hereinafter Copps Statement] (stating that the order would be an important milestone “if upheld by the courts”); Statement of FCC Commissioner Mignon L. Clyburn, FED. COMM. COMMISSION, 2 (Dec. 21, 2010), http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303746A4.pdf [hereinafter Clyburn Statement] (stating she believes it is appropriate for the FCC to act but “judicial review ultimately will determine the fate of this Order”).

105. *Internet Rules*, *supra* note 13, at 62-77; Baker Statement, *supra* note 102, at 10 (stating that the majority uses twenty-four different legal bases for jurisdiction).

106. Baker Statement, *supra* note 102, at 101.

107. *Internet Rules*, *supra* note 13, at 64.

108. *Id.*

109. *Comcast Corp. v. FCC*, 600 F.3d 642, 658 (D.C. Cir. 2010).

110. Deployment of Wireline Services Offering Advanced Telecommunications Capability, Memorandum Opinion & Order & Notice of Proposed Rulemaking, 13 FCC Rcd 24,012 ¶ 74 (1998) [hereinafter Advanced Services Order].

111. *Id.*

112. *Id.* at 659.

commissioners, however, asserted that Section 706 confers an affirmative duty “to take actions to encourage the deployment of ‘advanced telecommunications technology,’”¹¹³ essentially creating an independent grant of authority and reversing its previous reading of Section 706.¹¹⁴ Under this interpretation of Section 706, Congress delegated direct authority to regulate the Internet to the FCC.¹¹⁵ In order to avoid conflict with the Advanced Services Order, the majority attempts to narrow its previous interpretation of that order and avers that the *Comcast* court read it too broadly.¹¹⁶ The Order endeavors to turn a deregulatory law into new regulation and will ultimately be struck down in court.¹¹⁷ The District of Columbia Circuit Court in *Comcast* reiterated the Supreme Court’s holding that an agency “may not . . . depart from a prior policy *sub silentio*,”¹¹⁸ which is exactly what the Commission is attempting to do in its Order.¹¹⁹

The Commission also attempts to bring the Internet under its ancillary jurisdiction by anchoring it to other parts of the Communications Act,¹²⁰ including spectrum licensing and its authority to protect end users of voice, video, and audio services, among others.¹²¹ These are unlikely to be sustained as adequate legal grounds for the Order because the Commission’s ancillary jurisdiction can only be used secondarily to something already contained in the Act.¹²² There is no statutory delegation to regulate the internet by Congress and therefore no grounds for ancillary jurisdiction.¹²³ The Commission’s lack of authority is further demonstrated by bills introduced into Congress that, if approved, would have directly delegated the authority to regulate the Internet to the FCC.¹²⁴ If the FCC already had authority, there would be no need for Congress to introduce multiple bills delegating authority to them.¹²⁵

113. *Internet Rules*, *supra* note 13, at 64 (quoting 47 U.S.C. § 1302).

114. McDowell Statement, *supra* note 103, at 5.

115. *Id.*

116. *Internet Rules*, *supra* note 13, at 64-65.

117. McDowell Statement, *supra* note 103, at 5.

118. *Comcast Corp. v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010) (quoting *FCC v. Fox Television*, 129 S. Ct. 1800 (2009)).

119. McDowell Statement, *supra* note 103, at 5 (stating that the Order requires the Commission to change its prior interpretation of the Advanced Services Order).

120. *Id.* (“[T]he Order desperately scours the Act to find a tether to moor its alleged Title I ancillary authority.”).

121. *Internet Rules*, *supra* note 13, at 68-77.

122. *Comcast*, 600 F.3d at 645 (noting that to use its ancillary jurisdiction, the right to do so must be ancillary to something already in the Act).

123. McDowell Statement, *supra* note 103, at 6.

124. *Id.*

125. *Id.*

VI. THE FCC'S RULES FAIL TO PROTECT CONSUMERS USING MOBILE NETWORKS

A. MOBILE BROADBAND MUST BE PROTECTED BECAUSE IT WILL BECOME THE PREDOMINATE MEANS TO ACCESS THE INTERNET

In order for net neutrality to effectively preserve the free and open Internet, mobile networks must receive the same protections given to fixed networks. The rapid growth and development of mobile data demonstrates the need for comprehensive protection of mobile networks if net neutrality is to be preserved. Over 85% of American adults own cell phones.¹²⁶ Mobile broadband is the fastest growing broadband segment, anticipated to grow 130% over a five year period.¹²⁷ Just as cell phone use eclipsed landlines, mobile broadband usage is expected to surpass wireline broadband.¹²⁸ Even now, at times, wireless replaces traditional wireline services.¹²⁹

The growth in wireless data consumption is only expected to continue as faster connections and new services become available.¹³⁰ In the second quarter of 2010 alone, wireless data-based revenues for the two largest wireless carriers in the United States increased over 25%.¹³¹ This rapid growth can be attributed to several factors, including, a significant increase in the number of handsets capable of high-speed data and large numbers of connected devices such as e-readers, global positioning systems, and alarm systems that access wireless carriers' networks.¹³² The growth in mobile data, however, is not confined to just revenue. The number of people subscribing to wireless data plans is growing at a pace nearly equivalent to wireless data revenue growth.¹³³ The two largest wireless carriers credit data as the primary driver of wireless growth.¹³⁴ Mobile networks are be-

126. John Horrigan, *Wireless Internet Use*, PEW RES. CENTER at 43 (July 2009), <http://www.pewinternet.org/~media/Files/Reports/2009/Wireless-Internet-Use-With-Topline.pdf>.

127. Baker, *supra* note 5, at 5.

128. *Id.*

129. *Id.*

130. See *2nd Quarter 2010 Investor Briefing*, AT&T (July 22, 2010), http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_10_IB_FINAL.pdf [hereinafter *AT&T 2010 Briefing*]; *2nd Quarter 2010 Earnings Conference Call*, VERIZON (July 23, 2010), <http://news.vzw.com/investor/20100723.pdf> [hereinafter *Verizon 2010 Briefing*]

131. *AT&T 2010 Briefing*, *supra* note 130; *Verizon 2010 Briefing*, *supra* note 130 (averaging AT&T's 27.2% growth rate and Verizon's 23.8% growth year over year for the second quarter).

132. *AT&T 2010 Briefing*, *supra* note 130.

133. *Id.*

134. *Id.*; *2nd Quarter 2010 Earnings Conference Call*, VERIZON (July 23, 2010), <http://news.vzw.com/investor/20100723.pdf>.

coming the most important means of accessing the Internet. One recent survey concluded that over thirty-five percent of adults with cell phones or smartphones have accessed the internet using their mobile devices.¹³⁵ It is estimated that by the year 2020, the primary means of connecting to the internet will be through the consumer's smartphone or cell phone.¹³⁶ Further, the use of mobile broadband grows significantly with each generation.¹³⁷ Ninety-four percent of eighteen to twenty-nine year olds use their cell phones or smartphones to access the Internet compared with ninety percent of thirty to forty-nine year olds.¹³⁸ For eighteen to twenty-nine year olds, the cell phone is already the preferred method of accessing the Internet.¹³⁹ Ninety-four percent of individuals in that age range use their cell phones for internet access, significantly outpacing both desktop computers and laptops.¹⁴⁰

These statistics clearly demonstrate one thing: mobile devices are becoming the predominate means to access the web and all of the applications and services available through it. If mobile devices are to become the primary method for accessing internet content and services, the protections afforded to it must be equivalent to those given to its fixed counterpart. The rules adopted by the FCC fail to adequately protect mobile networks from carriers' interference because they create a separate, less stringent, set of rules for mobile broadband networks. Failure to fully apply the No-Blocking Rule and the complete omission of the No Unreasonable Discrimination Rule for mobile networks will prove fatal to the preservation of a free and open Internet. The following sections will discuss each rule and its impact on mobile networks more thoroughly.

B. TRANSPARENCY RULE

The first rule adopted by the FCC is a transparency rule.¹⁴¹ The Transparency Rule requires that a person providing broadband services disclose a number of items designed to protect consumers.¹⁴² The rule is designed to increase competition and foster trust between consumers and ISPs; encourage innovation by providing technical information to developers necessary for the creation and development of "online content, applications, services,

135. Rainie, *supra* note 3, at 5.

136. Janna Quitney Anderson & Lee Rainie, *Future of the Internet III*, PEW RESEARCH CENTER at 2 (Dec. 2008), http://www.pewinternet.org/~media/Files/Reports/2008/PIP_FutureInternet3.pdf.pdf.

137. Horrigan, *supra* note 126.

138. *Id.*

139. *Id.*

140. *Id.*

141. *Internet Rules*, *supra* note 13, at 54.

142. *Id.*

and devices; to assess the risks and benefits of embarking on new projects;” and increase the likelihood that broadband service providers will adhere to the rules by allowing the internet community to identify “problematic conduct and suggest fixes.”¹⁴³ The rule requires providers to disclose “network management practices, performance, and commercial terms of its broadband internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.”¹⁴⁴ These required disclosures would include speed, the types of applications that can be used, and how the service provider inspects traffic.¹⁴⁵

The Transparency Rule applies to both fixed and mobile broadband providers.¹⁴⁶ Application to mobile networks is a positive step, but unfortunately, it is the only rule adopted to apply uniformly to fixed and mobile broadband.¹⁴⁷ The Transparency Rule will be reasonably effective in meeting its goals as applied to mobile networks, but it still needs to be bolstered by specifying the information required by the disclosures to protect consumers and developers adequately.¹⁴⁸ Under the rule as it is written, broadband providers have the discretion to determine on their own what information is necessary for consumers to make informed choices and for content, application, service, and device providers to innovate.¹⁴⁹ The language or terms service providers must use is also left to their discretion.¹⁵⁰ While micromanagement and over-regulation are harmful, if average consumers cannot understand the information being disclosed, they will not be able to make informed decisions and the rule will be meaningless.¹⁵¹

C. NO-BLOCKING RULE

The No-Blocking Rule is where the FCC began its departure from its “one Internet” philosophy and effectually created two separate internets based on method of access.¹⁵² The No-Blocking Rule adopted by the FCC

143. *Id.* at 32-33.

144. *Id.* at 33.

145. Whitson Gordon, *An Introduction to Net Neutrality: What It Is, What It Means to You, and What You Can Do About It*, LIFEHACKER (Dec. 29, 2010), <http://lifehacker.com/5720407/an-introduction-to-net-neutrality-what-it-is-what-it-means-for-you-and-what-you-can-do-about-it>.

146. *Internet Rules*, *supra* note 13, at 55.

147. *See Internet Rules*, *supra* note 13.

148. *Id.*

149. *Id.*

150. *Id.*

151. Gordon, *supra* note 145 (“It does not necessarily mean that those disclosures will be understandable by non-tech savvy individuals.”).

152. Genachowski Statement, *supra* note 95, at 4 (“There is one Internet, and it must remain an open platform, however consumers and innovators access it.”).

for fixed broadband prevents providers from blocking lawful content, applications, services, and non-harmful devices.¹⁵³ It allows consumers to go to any website, use any service, or attach any equipment they choose, such as a wireless router, to the network. In contrast, the rule adopted for mobile networks, however, is much less comprehensive. This inadequacy impacts mobile networks in two primary capacities: content and devices.

1. *Internet Content*

The mobile No-Blocking Rule only prohibits blocking of lawful websites and voice or video telephony applications that compete with the providers' own services.¹⁵⁴ The rule permits mobile broadband providers to block access to nearly any application or service they choose.¹⁵⁵ It does not protect content as the fixed line rule does, only access to the web.¹⁵⁶ This means that mobile broadband providers could deny users access to Facebook, Twitter, Hulu, or virtually any other site.¹⁵⁷ The only blocking limitation for mobile operators, a restriction on blocking voice or video telephony that competes with the providers' own services, is inadequate to protect consumers. This limitation was also, for all intents and purposes, obsolete before it went into effect.

As smartphone growth surges, applications are becoming the primary means of utilizing voice or video telephony services from phones.¹⁵⁸ These applications are not accessed through a website, but rather through an application store, usually operated by the developer of the handset's operating system.¹⁵⁹ The rule does not apply to application stores,¹⁶⁰ which allows the ISP to restrict the availability of applications, such as Skype or Google Voice, that compete with the mobile broadband providers' own video or

153. *Internet Rules*, *supra* note 13, at 37.

154. *Id.* at 55.

155. *Id.* at 37, 55. The No-Blocking Rule for mobile networks is limited to voice or video telephony services that compete with their own. The No Blocking Rule for fixed networks, however, is not limited to competing voice or video telephony services. *Id.*

156. *Id.*

157. Gordon, *supra* note 145 (noting that an ISP could deliberately block a service at any point they choose).

158. Kevin C. Tofel, *iPhone and Android Fueling Worldwide Smartphone Growth*, GIGAOM (May 7, 2010), <http://gigaom.com/mobile/iphone-and-android-fueling-worldwide-smartphone-growth/> (discussing the growth rate of smartphones at 56.7% in the first quarter of 2010).

159. The two leading smartphone operating systems both use application stores. Apple operates the iPhone App Store available through its iTunes program and Google operates the Android Marketplace for handsets that operate on its Android operating system. *See* APPLE, <http://www.apple.com/iphone/apps-for-iphone/> (last visited Feb. 15, 2010); ANDROID, <https://market.android.com/> (last visited Feb. 15, 2010).

160. *Internet Rules*, *supra* note 13, at 57.

voice telephony services, leaving the voice and video exception to the rule hollow.¹⁶¹ For mobile devices that do not currently utilize an application store, the ISP can establish an application store and restrict the availability of applications, such as Skype or Google Voice, to avoid the prohibition on blocking competing voice or video telephony services.¹⁶²

2. *Freedom of Devices*

The rule also fails to prohibit blocking of non-harmful devices on mobile networks. This is the third internet freedom espoused in the FCC's Internet Policy Statement, yet the Commission excluded it for mobile broadband in the rules the Commission adopted.¹⁶³ Freedom of devices is the freedom of consumers to attach any legal device of their choice as long as they do not harm the network.¹⁶⁴ This freedom is often referred to as *Carterfone* for mobile networks.¹⁶⁵ *Carterfone* is a 1968 FCC decision that held that consumers could attach any device to the telephone network as long as the device did not harm the network.¹⁶⁶ The *Carterfone* decision was published before mobile telephone networks existed and is thus limited to traditional landline telephone networks.¹⁶⁷ The FCC has been asked to extend *Carterfone* to mobile networks but the Commission has yet to make a ruling, leaving wireless carriers free to limit the devices that may attach to and use their networks.¹⁶⁸ Extending *Carterfone* to mobile networks would benefit consumers and encourage innovation. The FCC declined, however, to extend this principal to mobile networks in their net neutrality rules.¹⁶⁹

The extension of freedom of devices to mobile networks would impact two separate areas of the mobile sector.¹⁷⁰ First, the decision would impair the ability of the carriers to restrict which handsets can be used on their network.¹⁷¹ Freedom of devices would be a defining characteristic of the

161. Gordon, *supra* note 145.

162. *Internet Rules*, *supra* note 13, at 57 (The rules are not intended to "limit mobile broadband providers' flexibility to curate their app stores . . .").

163. Internet Policy Statement, *supra* note 15.

164. See *Internet Rules*, *supra* note 13, at 39 (discussing the No Blocking Rule for wireline networks inclusion of the freedom to attach any device that does not harm the network).

165. See Clay, *supra* note 24; *Engadget Explains Net Neutrality*, *supra* note 17.

166. Clay, *supra* note 24, at 717-18; Use of the Carterfone Device in Message Toll Telephone Service, Decision, 13 F.C.C. 2d 420 (1968).

167. Clay, *supra* note 24, at 717-18.

168. *Id.*

169. *Id.* at 723.

170. See *id.* (analyzing whether carriers should be forced to allow any handset to attach to their network); *Engadget Explains Net Neutrality*, *supra* note 17 (explaining that entrepreneurs will innovate new devices for unrestricted spectrum).

171. Clay, *supra* note 24, at 723-27.

long-term development of future mobile networks. Limiting the carriers' ability to control what devices connect to their networks, however, would have little practical impact on the consumer's choices of handsets for any given network in the short term. Wireless carriers use different technologies and frequencies that are typically not compatible with one another.¹⁷² Even if *Carterfone* was extended to mobile networks, the incompatible technologies would typically prevent a phone purchased for one carrier to be moved to another.¹⁷³ The two largest wireless carriers provide an example. Verizon uses Code Division Multiple Access (CDMA) technology for its wireless network while AT&T network uses Global Systems for Mobile Communication (GSM) technology.¹⁷⁴ With the exception of a few phones that are designed for both types of networks, a consumer typically cannot attach a Verizon handset to the AT&T network, or vice versa, because the technologies used are fundamentally different and incapable of interoperability.¹⁷⁵

Further, the cost of wireless handsets limits the potential impact *Carterfone* would have on the types of handsets consumers use on their mobile networks. Most consumers are accustomed to paying a relatively low price for a mobile handset because wireless carriers subsidize the costs of handsets in exchange for a commitment by the consumer to use the carrier for one or two years, accompanied by a sizeable termination fee if the consumer cancels early.¹⁷⁶ Without the commitment, the handset is substantially more expensive.¹⁷⁷ Take Apple's iPhone, for example. The iPhone is sold to consumers at a cost of roughly \$200.¹⁷⁸ The cost of the iPhone without a contract is \$649.00.¹⁷⁹ Without subsidization by the carrier, handsets would become prohibitively expensive.¹⁸⁰ The non-subsidized pricing model al-

172. Penchuk, *supra* note 17, at 105 (discussing the different wireless technologies and how the carriers use different frequencies to avoid interference with one another).

173. *Id.*

174. *Id.* (discussing the different wireless technologies); *see also* VERIZON WIRELESS, <http://aboutus.vzw.com/ataglance.html> (last visited Oct. 30, 2010); AT&T, <http://www.att.com/gen/investor-relations?pid=5711> (last visited Oct. 30, 2010) (accessed by selecting the Networks link in the left column).

175. Penchuk, *supra* note 17, at 105 (“[A] user . . . often was required to switch handsets.”).

176. Clay, *supra* note 24, at 726 (discussing how the CTIA believes an open model would actually lead to higher prices because the networks currently subsidize the cost of handsets).

177. *E.g.*, APPLE, http://store.apple.com/us/browse/home/shop_iphone/family/iphone/iphone4s (last visited Dec. 13, 2011) (showing the two year commitment price as \$199.99 and the price for the unlocked handset as \$649.00).

178. *Id.*

179. *Id.*

180. Clay, *supra* note 24, at 726 (discussing how the CTIA believes an open model would actually lead to higher prices because the networks currently subsidize the cost of handsets).

ready exists today. Unlocked handsets, ones that are not locked to a specific wireless carrier so they can be used on any network supporting the handset's technology, are available for consumers to purchase.¹⁸¹ The exorbitant cost of these unlocked phones continues to drive consumers to the wireless carriers or their partners to purchase subsidized handsets at lower costs.

The limitations imposed by incompatible technologies and costs, however, do not hold true past the short-term. The incompatibility issue could be mitigated in the future as carriers migrate to newer technologies that are more compatible with one another.¹⁸² Long Term Evolution (LTE), has been chosen by many of the largest wireless carriers as the next generation of their respective wireless networks.¹⁸³ It is anticipated that LTE could "bring a unified standard and compatibility across carriers."¹⁸⁴ If interoperability among wireless networks is realized, the ability of consumers to use any phone they choose on any network will be essential to maintaining an open Internet.

Second, and more importantly, not applying freedom of devices to mobile broadband operators discourages innovation.¹⁸⁵ The FCC should have extended this freedom to mobile networks because it would fuel the innovation of new types of devices capable of connecting to wireless networks.¹⁸⁶ The original *Carterfone* decision is credited for the explosion of devices that connect to phone lines including the fax machine, answering machine, and the modem, which eventually led to the mass adoption of the Internet.¹⁸⁷ The carriers themselves credit large numbers of new, non-handset devices such as global positioning systems, e-readers, and home alarm systems as a large driver of data growth, demonstrating the growing importance of protecting freedom of devices.¹⁸⁸ Allowing freedom of devices on mobile networks would have the same type of effect on innovation as it did for traditional landline networks.¹⁸⁹ New and innovative devices are constantly being developed to accommodate a more mobile lifestyle. A

181. See, e.g., *supra* note 176 (showing the two year commitment price as \$199.00 and the price for an unlocked handset as \$649.00).

182. Emir Halepovic et al., *Wireless Data Traffic: A Decade of Change*, IEEE NETWORK MAG., Mar. 24, 2009, at 21.

183. In the United States, the two largest wireless carriers, Verizon and AT&T, have adopted LTE for their 4G network deployment. VERIZON WIRELESS, <http://aboutus.vzw.com/ataglance.html> (last visited Oct. 30, 2010); AT&T, <http://www.att.com/gen/investor-relations?pid=5711> (last visited Oct. 30, 2010) (accessed by selecting the Networks link in the left column).

184. Halepovic, *supra* note 182.

185. *Engadget Explains Net Neutrality*, *supra* note 17.

186. *Id.*

187. *Id.*

188. See *supra* Part IV.

189. *Engadget Explains Net Neutrality*, *supra* note 17.

recent example is the tablet computer, like the Apple iPad or the Samsung Tab, which in many cases, is specifically designed to access mobile networks. The potential for other types of devices is limited only by one's imagination.¹⁹⁰

The FCC's failure to adopt protections for non-harmful devices could be fatal to a truly free and open mobile internet.¹⁹¹ Protecting the freedom to attach any device to the network on more mature, fixed networks while excluding the same freedom for rapidly developing mobile broadband networks is counter-intuitive. It also contradicts the Commission's mandate to encourage advanced telecommunications services.¹⁹² As demonstrated by the *Carterfone* decision for fixed telephone networks, fostering innovation, investment, and competition is the best method for promoting the development of advanced technologies.¹⁹³ The rules' lack of protection for freedom of devices on mobile networks will continue to suppress innovation of devices, limiting development to the carriers and their affiliates, resulting in reduced competition.

The No-Blocking Rule must be applied uniformly to mobile broadband networks, as it is to fixed broadband networks, if an open Internet is to be preserved. The statistics show that mobile internet will become the predominate means of internet access.¹⁹⁴ As the Commission recognizes in its Order, and some commissioners do in their statements, "[t]here is one Internet, which should remain open for consumers and innovators alike, although it may be accessed through different technologies and services."¹⁹⁵ Despite the Commission's recognition that there is one Internet that should be protected equally, the FCC fails to afford mobile broadband the No-Blocking protections required to ensure that the Internet remains free and open.

190. See, e.g., *iPad Technical Specifications*, APPLE, <http://www.apple.com/ipad/specs/> (last visited Feb. 13, 2010) (showing the 3G model is designed to access wireless networks); *Samsung Galaxy Tab 7.0*, SAMSUNG, <http://www.samsung.com/us/mobile/galaxy-tab/SGH-T849ZKATMB> (last visited Feb. 13, 2010) (showing the Galaxy Tab as having 3G wireless connectivity).

191. *Engadget Explains Net Neutrality*, *supra* note 17.

192. See *Internet Rules*, *supra* note 13, at 64 (quoting 47 U.S.C. §1302) (stating that Section 706 confers an affirmative duty to "encourage the deployment of 'advanced telecommunications capability'").

193. *Engadget Explains Net Neutrality*, *supra* note 17.

194. Janna Quitney Anderson & Lee Rainie, *Future of the Internet III*, PEW RES. CENTER, 2 (2008), http://www.pewinternet.org/~media/Files/Reports/2008/PIP_FutureInternet3.pdf (stating that mobile will be the predominate method of accessing the internet by 2020).

195. *Internet Rules*, *supra* note 13, at 52; Genachowski Statement, *supra* note 95, at 4 ("There is one Internet, and it must remain an open platform, however consumers and innovators access it."); Copps Statement, *supra* note 104, at 4 (reiterating the quote from the Order).

D. NO UNREASONABLE DISCRIMINATION RULE

The FCC further departs from its “one Internet” philosophy with the No Unreasonable Discrimination Rule. The rule was adopted for fixed broadband networks, but was completely abandoned for consumers using mobile broadband networks.¹⁹⁶ The rule for fixed networks prevents service providers from slowing or degrading traffic based on the type of service or application, or its content.¹⁹⁷ It essentially prevents situations like the one that arose in *Comcast Corp. v. FCC*, where Comcast was slowing traffic from BitTorrent just because it was coming from that particular site.¹⁹⁸ It also prevents fixed broadband service providers from slowing traffic that competes with its own services or those of an affiliate. Further, the rule states that paid prioritization arrangements are not likely to satisfy this¹⁹⁹ and ISPs would be required to show that the “arrangement is not harmful and is consistent with the public interest.”²⁰⁰ While many feel the No Unreasonable Discrimination Rule should have completely prohibited paid prioritization agreements, they agree it is a step in the right direction.²⁰¹

Unfortunately, these protections do not apply to mobile broadband networks. The failure to adopt the No Unreasonable Discrimination Rule for mobile networks has serious implications for users who access the web from their mobile devices. Mobile providers are left free to slow or degrade the traffic to or from any site or service.²⁰² Furthermore, it allows the providers to slow traffic to sites such as Netflix or Hulu that compete with their own or their affiliates’ services, or social media sites such as Facebook and Twitter. It also allows them to circumvent the No-Blocking Rule because they can slow or degrade voice or video telephony services that compete with their own, so long as they do not render those services unusable.²⁰³

196. *Internet Rules*, *supra* note 13, at 58 (declining to adopt a No Unreasonable Discrimination Rule in favor of continued monitoring to see how mobile networks develop).

197. *Id.* at 40 (“A person engaged in the provision of fixed broadband Internet access service, insofar as such person is so engaged, shall not unreasonably discriminate in transmitting lawful network traffic over a consumer’s broadband Internet access service. Reasonable network management shall not constitute unreasonable discrimination.”).

198. *See Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

199. *Internet Rules*, *supra* note 13, at 43 (stating that pay for priority will “raise significant cause for concern”).

200. Clyburn Statement, *supra* note 104, at 1.

201. *See id.*; Copps Statement, *supra* note 104, at 4 (“Among the many improvements to the Order we achieved, we now at least conclude that ‘pay for priority’ arrangements generally violate our ‘no unreasonable discrimination’ rule”).

202. Gordon, *supra* note 145.

203. *Internet Rules*, *supra* note 13, at 56 (“[D]egrading a particular website or an application that competes with the provider’s voice or video telephony services so as to render the website or application effectively unusable would be considered tantamount to blocking.”).

The FCC has left the decision of what sites and services are available from mobile devices to their mobile broadband providers and not the users, where it belongs.

The exemption has another significant impact on what mobile broadband network operators are allowed to do. Unlike fixed broadband, the general principle that paid prioritization agreements will not satisfy the No Unreasonable Discrimination Rule does not apply to mobile networks since the rule itself was not applied.²⁰⁴ This leaves mobile broadband providers free to create a fast lane for companies that can afford it and a slow lane for everyone else. Companies like Facebook or Netflix may have to pay extra to be delivered over a mobile service provider's network or the network may charge the user an additional fee to access the content.²⁰⁵ The result of such arrangements will be to stifle innovation and competition and to suppress free speech.²⁰⁶

E. THE FCC'S JUSTIFICATIONS FOR LESS PROTECTIVE RULES FOR MOBILE BROADBAND NETWORKS AND WHY THEY ARE DEFECTIVE

The net neutrality rules adopted by the FCC closely resemble a legislative framework that Google and Verizon recently proposed.²⁰⁷ The exemption for the mobile networks has been supported by other wireless carriers, including AT&T, the second-largest.²⁰⁸ Internet service providers have good reason to want to exclude mobile internet from regulation, and their arguments prevailed in the rules adopted by the FCC. For the top two carriers alone, mobile broadband is over a twenty billion dollar a year business.²⁰⁹ The industry's desire to exempt wireless networks from net neutrality is focused on industry interests and not consumer protections. Unfortunately for consumers, the FCC agreed with them. The FCC's Order establishing net neutrality rules gave several justifications for excluding mobile broadband protections.²¹⁰ The Commission advances mobile networks' early developmental stage, moves toward openness in the mobile market, market competition, and network management as reasons mobile networks

204. *Id.* at 58.

205. Gordon, *supra* note 145.

206. See discussion *supra* Parts II.B, III.

207. *Verizon-Google Legislative Framework Proposal*, *supra* note 10.

208. Greg Bessinger, *AT&T Says Google-Verizon Internet Plan 'Reasonable,'* BLOOMBERG (Aug. 11, 2010), <http://www.bloomberg.com/news/2010-08-11/at-t-wireless-chief-says-google-verizon-internet-plan-reasonable-.html>.

209. *2nd Quarter 2010 Investor Briefing*, AT&T (July 22, 2010), http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_10_IB_FINAL.pdf; *2nd Quarter 2010 Earnings Conference Call*, VERIZON (July 23, 2010), <http://news.vzw.com/investor/20100723.pdf>.

210. FCC Press Release, *supra* note 94.

should not be regulated as comprehensively.²¹¹ The justifications given by the FCC do not hold water when they are scrutinized.

The first three arguments can be quickly dismissed. It is counter-intuitive to assert that there is one Internet regardless of how it is accessed²¹² and then create distinctions in how it is regulated. The Commission explicitly states in the Order that the Internet has thrived because of its openness and freedom.²¹³ It then chooses not to protect that openness and freedom for the fastest-growing broadband segment.²¹⁴ The decision to exclude mobile networks based on the technology's infancy is illogical. The early developmental stage of mobile broadband networks is one of the primary reasons to adopt net neutrality rules. Application of the FCC's Order to mobile broadband would ensure its future as free and open and development of mobile networks would evolve around these core principals.

The moves toward openness in the mobile market are at the least inadequate, if not completely frivolous, to justify exempting mobile broadband networks from the rule. The FCC cites a spectrum auction that imposed openness rules as one justification.²¹⁵ That auction, however, involved primarily only one wireless carrier, Verizon.²¹⁶ The FCC uses the openness of Google's Android operating system as an example.²¹⁷ Open operating systems have absolutely no bearing on the mobile networks' openness.²¹⁸ If the mobile broadband network operator does not allow the traffic on the network, it is inconsequential that one has the ability to download the application to a handset.²¹⁹

The competitive nature of the mobile broadband marketplace is also asserted by the FCC as a reason for not adopting more stringent mobile broadband protections.²²⁰ This argument is also flawed. The marketplace is not competitive; rather it functions as an oligopoly.²²¹ The largest wireless carriers discourage price competition by matching each other's prices.

211. *Id.*

212. *Internet Rules*, *supra* note 13, at 52.

213. *Id.* at 3.

214. Baker, *supra* note 5, at 5.

215. FCC Press Release, *supra* note 94 (stating that the upper 700 MHz of the C-block spectrum auction rules on openness should soon affect the market).

216. Robert Holmes, *Verizon Wins 'C-Block' in Spectrum Auction*, THE STREET (Mar. 20, 2008), <http://www.thestreet.com/story/10408801/verizon-wins-c-block-in-spectrum-auction.html>.

217. FCC Press Release, *supra* note 94.

218. Nilay Patel, *FCC: We Didn't Impose Stricter Net Neutrality Regulations on Wireless because Android is Open*, ENGADGET (Dec. 21, 2010), <http://www.engadget.com/2010/12/21/fcc-we-didnt-impose-stricter-net-neutrality-regulations-on-wir/>.

219. *Id.*

220. FCC Press Release, *supra* note 94.

221. Wu, *supra* note 4 (likening broadband providers to OPEC).

Nearly every price point is identical for the nation's top two mobile operators, Verizon and AT&T.²²² There is no downward pressure being applied on price by either of the largest carriers, and thus no real competition for price.

The argument that mobile networks require more management deserves more attention than the other justifications for excluding mobile. Carriers argue²²³ and the FCC agrees, that the differences between mobile networks and traditional wireline networks make it necessary to impose fewer restrictions on mobile networks.²²⁴ There are certain challenges that are unique to operating a mobile network and some network problems manifest more acutely in mobile networks than in their wireline counterparts.²²⁵ The most significant of these challenges, the one most commonly asserted by carriers as the basis for the distinction between wireless and wireline networks, is the limited amount of wireless spectrum available.²²⁶ Wireless spectrum consists of blocks of radio frequencies that mobile devices use to communicate with a cell tower when placing a call or initiating a data session.²²⁷ Mobile broadband providers point to the scarcity of spectrum as one of the primary reasons that wireless networks require more management than fixed networks.²²⁸ They emphasize the need to manage traffic on mobile networks to ensure a consistent customer experience.²²⁹ Wireless carriers argue that network management is intended to prevent a few heavy users who are streaming movies or downloading large files from consuming the network's entire bandwidth capacity, inhibiting others from being able to access the network.²³⁰ This argument's legitimacy will rapidly decline as more wireless spectrum becomes available.

While the lack of available wireless spectrum is a legitimate concern, there are other ways to address the problem that provide a satisfactory solution without excluding mobile broadband networks from the important net

222. Verizon rate plans are available at www.verizonwireless.com and AT&T's rate plans are available at wireless.att.com.

223. *Verizon-Google Legislative Framework Proposal*, *supra* note 10.

224. *See Internet Rules*, *supra* note 13.

225. Baker, *supra* note 5 (discussing how the rapid growth in mobile data is exhausting available wireless spectrum).

226. *Id.* at 4 ([N]othing is more critical than the lack of additional spectrum").

227. *See Definition of Spectrum*, PHONESCOOP, <http://www.phonescoop.com/glossary/term.php?gid=90> (last visited October 12, 2010).

228. *AT&T Says F.C.C. Neutrality Suggests a 'Bait and Switch'*, N.Y. TIMES.COM (Sept. 21, 2009), <http://bits.blogs.nytimes.com/2009/09/21/att-calls-fcc-net-neutrality-idea-bait-and-switch/> (quoting AT&T as saying that networks "are facing incredible bandwidth strain").

229. *Id.* (quoting AT&T as saying networks will "require . . . pro-active network management").

230. *See* discussion and accompanying text *supra* Part II.

neutrality rules.²³¹ The most practical solution is for the FCC to allocate more spectrum for use by mobile devices.²³² There is not a true lack of additional spectrum available; rather there is general agreement that the current allocation and use of wireless spectrum is inefficient and inadequate.²³³ The FCC recognized the shortage of available spectrum due to inefficient use and allocation and has even taken some small steps to help resolve the problem.²³⁴ The Commission recently auctioned some available wireless spectrum to carriers in addition to releasing wireless spectrum called “white space.”²³⁵ Further, additional wireless spectrum will become available from the carriers themselves as they move to the next generation of wireless technology.²³⁶ As carriers transition customers from second generation (2G) and third generation (3G) wireless technologies to fourth generation (4G) technology, the spectrum utilized by the older technologies will become available for reallocation.²³⁷ Carriers could then reuse the available spectrum in their 4G networks to increase its capacity, allowing for more data to be moved across it.²³⁸ Additionally, there is a significant amount of unused spectrum that, if made available to the carriers, could reduce or eliminate the need for the carriers to perform additional network management above that of their fixed counterparts altogether.²³⁹ These potential solutions show that there are viable options to solve the problem of spectrum shortage and negate the basis of FCC’s claim that the need for network management requires that mobile networks be given less protection than fixed networks.

VII. CONCLUSION

Mobile broadband networks must have enforceable rules to safeguard the traffic that passes through them. Failure to rapidly protect mobile net-

231. See generally Baker, *supra* note 5; Wu, *supra* note 4.

232. Baker, *supra* note 5.

233. *Id.* (arguing that “significant and timely action on spectrum policy” is needed); Penchuk, *supra* note 17, at 84 (stating that “unused wireless bandwidth is substantial”).

234. Baker, *supra* note 5, at 4 (arguing that no problem is more critical to the FCC than the shortage of wireless spectrum); Om Malik, *FCC Chairman: Why We Need More Wireless Spectrum*, GIGOM.COM, <http://gigaom.com/2010/10/11/fcc-chairman-whitespaces/> (last visited October 29, 2010) (quoting FCC Chairman Julius Genachowski as saying “[a] year ago, no one was talking about the spectrum shortage in this country”).

235. Clay, *supra* note 24, at 732 (discussing the 700MHz auction); Malik, *supra* note 233 (discussing the FCC’s release of unused wireless spectrum).

236. Tricia Duryee, *Wireless Carriers Bicker Over Size of Spectrum Holdings*, PAIDCONTENT.ORG (Mar. 19, 2010), <http://paidcontent.org/article/419-wireless-carriers-bicker-over-size-of-spectrum-holdings/> (discussing how 2G and 3G spectrum will become available for use once they transition customers to 4G).

237. *Id.*

238. *Id.*

239. Engadget Explains Net Neutrality, *supra* note 17.

works would compromise net neutrality for the entire Internet. Mobile networks are the fastest growing broadband segment and will soon be the predominate means of accessing internet content. Net neutrality protections will become meaningless unless they are protected. The FCC must act quickly to adequately protect mobile networks by adopting enforceable and comprehensive rules that safeguard mobile networks to the same extent as fixed networks.

The net neutrality rules adopted by the FCC are insufficient to protect mobile networks for two reasons. First, the rules are unenforceable because they lack a sufficient legal foundation. The *Comcast* court clearly stated that the FCC does not possess the authority to regulate the Internet because it does not fall in either their direct or ancillary jurisdiction.²⁴⁰ Congressional delegation of authority to regulate the Internet to the FCC is clearly the most desirable scenario to remedy this problem. Absent quick action from Congress, however, the FCC must reclassify broadband services to adopt enforceable and comprehensive net neutrality rules for mobile broadband networks that truly protect the freedom and openness that have made the Internet the most successful and powerful communications tool in history.

Regardless of enforceability, the framework of the rules makes them inadequate to protect mobile networks, their users, and developers from the tampering and interference of internet service providers. In order to adequately protect mobile networks, more stringent and comprehensive restrictions must be placed upon the ability of service providers to block or otherwise manage traffic based on content. Full application of the No-Blocking and No Unreasonable Discrimination rules, including freedom of devices, must be extended to mobile networks. Failure to do so jeopardizes nothing less than the key characteristics of the most powerful communications tool the world has ever seen and leaves millions of internet users subjugated to corporate America's bottom line.

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240. *Comcast Corp. v. FCC*, 600 F.3d 642, 645 (D.C. Cir. 2010).

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