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

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

COMMENTS OF FREE PRESS REGARDING FURTHER INQUIRY

Derek Turner, Research Director
Free Press
501 Third Street, NW, Suite 875
Washington, DC 20001
202-265-1490

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SUMMARY

The questions raised in this *Public Notice* are certainly important ones to the Network Neutrality policy debate, but they are by no means new questions. The issues of wireless neutrality and managed services were raised and debated in great detail in this open proceeding over ten months ago. We have no doubt that this current *Notice* will generate very similar responses to those already submitted. In a speech delivered at the Brookings Institution over one year ago, Chairman Genachowski warned that without the fundamental protection of Net Neutrality, "[w]e could see the Internet's doors shut to entrepreneurs, the spirit of innovation stifled, a full and free flow of information compromised." He also noted that "[i]f we wait too long to preserve a free and open Internet, it will be too late." We fully endorse this sentiment and concern. It is far past time for the Commission to bring greater certainty to these markets by moving forward rules to preserve the open Internet as proposed in the October 2009 NPRM.

With these comments, we echo Chairman Genachowski's sentiment on managed or "specialized" services, when he stated that they should "supplement -- but must not supplant -- free and open Internet access, and that we must ensure that ample bandwidth exists for all Internet users and innovators." Specialized services, to the extent that they are not voice or video services already under the panoply of Title II and VI consumer protections, are at this stage merely a hypothetical, one that could be used as a loophole for carriers to evade open Internet protections. We note that under the *Wireline Order*, the *Computer Inquiries* regulatory framework would still apply to such services, as these requirements were only eliminated for Internet access services. However, we also offer guiding principles for the development of potential new rules for such services to help reduce their harm towards open Internet access services. Specialized services must be kept separate from open Internet access services. They must not duplicate or replicate the functionality of open Internet access services, and they must not compromise the offering of robust open Internet access services.

We also revisit the spirit of Chairman Genachowski's wise words delivered last fall, where he noted that "[e]ven though each form of Internet access has unique technical characteristics, they are all are different roads to the same place. It is essential that the Internet itself remain open, however users reach it." Right now, consumers perceive and use one Internet, regardless of whether they get access via a wireless network or a wireline connection. The Commission should not allow that one network to be broken up into an open wired network and a closed wireless network. Any differences in capacity constraints or technological limitations between wireless and wired networks can be best addressed by a flexible reasonable network management, rather than by exempting wireless technologies from the rule entirely. Allowing wireless carriers to engage in economic-driven discriminatory rent-seeking and exclusionary behavior based solely on possible technical differences in the network topology will create and exacerbate the very kinds of harms the Commission aims to avoid with the rules proposed in this proceeding.

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Introduction

The time for asking questions has passed. The open Internet remains in peril, along with the irreplaceable social, economic, and democratic benefits associated with it. The questions asked in the Commission's most recent public notice in its *Open Internet* proceeding have all been asked before, and virtually all interested parties have already stated their views on the record. In these comments, Free Press repeats and expands upon its many filings in this proceeding.

As Free Press has previously argued, exempting broadband capacity allocated to "specialized" services from open Internet rules could create significant loopholes that jeopardize open Internet protections. Such an exemption could encourage the migration of content, applications, and services currently offered on the Internet to other, more restricted services, and encourage providers to allocate substantial portions of broadband capacity to "specialized" services, thus stifling the growth and robustness of Internet access services.

If the Commission nevertheless chooses to recognize non-Internet broadband communications services, Free Press urges the Commission to continue to apply the *Computer Inquiries* regulatory framework to such services, as prior Commissions only eliminated *Computer Inquiry* requirements for Internet access services (as opposed to broadband capacity allocated to specialized services). As a further and weaker alternative, these comments offer guiding principles for the development of potential new rules for such services to help reduce their harm towards open Internet access services. In particular, specialized services must be kept separate from open Internet access services. They must not duplicate or replicate the functionality of open Internet access services, and they must not compromise the offering of robust open Internet access services. The Commission should take great care to avoid its past

mistakes by establishing pro-competitive rules for such services *ex ante*, including some form of enforceable "reasonable" or "comparable" rule for terms and conditions of contracts for carriage of such services, along with confidential disclosure of contract terms to the Commission. Finally, the Commission should require adequate transparency for such services, regarding both their marketing and the network management practices that allow them to share network infrastructure with open Internet access services.

Regarding mobile wireless services, reprising our earlier filings, Free Press contends the Commission must apply the same rules to all technologies providing Internet access. Internet users perceive no distinction between the Internet as accessed through mobile wireless or wireline offerings. The same devices – including laptop computers, netbooks, tablet computers, and smartphones – may seamlessly access both networks, flipping from 3G or 4G mobile access to a WiFi router connected to a wireline connection. Technological neutrality has long been a hallmark of good policy at the Commission, and should be maintained in this proceeding as elsewhere. Additionally, studies have demonstrated a disproportionate reliance on mobile Internet access services by disadvantaged groups; failing to preserve the open Internet on mobile services risks the creation of a new digital divide.

Arguments by industry that open Internet protections are not necessary or not feasible for mobile wireless services are meritless. Industry filings in past comment rounds in this proceeding have blithely ignored a long history of blocking and other restrictions on mobile Internet access services. Flexible standards for reasonable network management, which under all proposals will take into account specific technical aspects of individual networks, coupled with the general ability of network operators to conduct nondiscriminatory network management, suffice for mobile wireless networks as with all others. Indeed, the only relevant distinction of wireless

networks in this debate is technical; therefore there is no reason whatsoever to allow economic-based discrimination, which, because of the alleged technical constraints of some wireless networks, would harm edge innovation to an even greater degree.

The Commission cannot continue to delay resolution of this proceeding, whether to ask additional questions or to wait for unlikely congressional intervention. The Commission should act quickly to fulfill its promises and preserve the open Internet by implementing rules to preserve the open Internet as proposed in the October 2009 *Notice*.

I. To the Extent That the Commission Exempts Broadband Capacity Allocated to Specialized Services From Nondiscrimination Requirements, the Commission Must Ensure That Those Exemptions Do Not Undermine its Efforts to Protect Consumers and Preserve the Open Internet.

The debate concerning future specialized services that may be offered by broadband communications service providers has reached an extraordinary level of heat and hyperbole. The level of rhetoric is particularly puzzling because service providers have offered few, if any, real examples of such services. Instead, providers have offered examples of purely hypothetical future offerings or services better placed within existing regulatory categories, such as Title II telecommunications services or Title VI multichannel video services.[1] The inability to classify or provide examples for such services has created substantial confusion, extending to frequent changes of ambiguous names, reflecting the lack of any unifying criteria for such services or credible explanation for their necessary existence.[2]

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[1] *See* Comments of Free Press, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 105-06, 110 (Jan. 14, 2010) (Free Press Comments).

[2] In July 2009, Representatives Edward J. Markey and Anna G. Eshoo introduced H.R. 3458, the Internet Freedom Preservation Act, which introduced the concept of "private transmission capacity services" and tasked the Commission with identifying and setting appropriate policy rules for such services. The Commission's October 2009 Notice of Proposed Rulemaking

Free Press believes that any form of prioritization on open Internet access services that is not purely edge-driven will, even under ideal circumstances, impose incalculable harm on innovation, competition, investment, consumer choice, and free speech.[3] Control over prioritization would effectively empower ISPs to choose winners and losers among Internet content, applications, and services, destroying what is today a competitive and innovative market built around unrestricted consumer choice. The result would be the end of the open Internet that has been an engine for unanticipated and unparalleled economic growth – it could become no better than cable television as a media for individual voices, where even rules designed to prevent against discrimination have failed in practice to stop growing consolidation and control over producers and distributors of content. As such, the Commission must make clear that prioritization has no place on the open Internet.

However, distinct services that are *not* open Internet access services or services subject to Title II or Title VI of the Communications Act would not be necessarily subject to open Internet rules regarding those services, but rather would be subject to a separate legal regime. Under the

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replaced this terminology with "managed or specialized services." *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, Notice of Proposed Rulemaking, 24 FCC Rcd 13064, para. 9 (2009) (*Open Internet NPRM*). Today's proceeding shortens this phrase to merely "specialized services" to avoid use of the common term "managed service." *Notice* at p. 2, n.7. We use the terms managed services or specialized services to refer to this category of offerings throughout this filing.

[3] Purely edge-driven prioritization, such as might be driven by DiffServ under which a user's personal and controlled computer or other equipment would identify traffic receiving priority (with such priority respected and preserved by the network operator regardless of the content or application involved in the communication), avoids these pitfalls by fully empowering users. Current prioritization practices structured through service level agreements in some business network connections typically follow this pattern. Residential implementation of a similar system is well within the limits of modern technology. *Cf.* Letter from Josh King, Benjamin Lennett, Sascha Meinrath, Daniel Meredith, Open Technology Initiative, New America Foundation, to Marlene H. Dortch, Federal Communications Commission, GN Docket Nos. 09-191, 10-127 (Sep. 1, 2010) (discussing DiffServ and edge-driven prioritization as a legitimate and standardized tool, in contrast to proposals by AT&T involving third party paid prioritization).

current legal framework, the capacity used to provide such "specialized" services, if operating on broadband communications pathways yet distinct from Internet access services, would not have been covered by the Commission's deregulatory orders, as such orders applied solely to Internet access services and the capacity used to transmit them (and not capacity used to transmit services that fell outside the definition of Internet access services, such as voice or multichannel video). Therefore, the capacity used to provide specialized services is currently subject to the *Computer Inquiries* rules, which we believe would be appropriate safeguards in this space.[4]

Nevertheless, should the Commission choose to set aside the *Computer Inquiries* framework and put forward a new legal framework for these potential future services, we encourage the Commission to take all precautions necessary to ensure that the offering of such services does not undermine the free and open Internet. As the October 2009 NPRM put it, "Broadband providers' ability to innovate and develop valuable new services must co-exist with the preservation of the free and open Internet that consumers and businesses of all sizes have come to depend on."[5] These other services cannot "co-exist" with the free and open Internet if they are allowed to stifle the transmission capacity used by the open Internet, or if they drive users, innovation, and investment away from the open Internet.

In these comments, we offer four recommendations to shape rules for specialized services to protect consumers and promote competition and innovation in the offering of all services over broadband infrastructure. First, such services should not be duplicative of Internet access services, should not replicate functionality currently available on the open Internet, and should not thereby encourage a substantial migration of content and investment away from the open Internet, as such a shift would harm the numerous social and economic externalities associated

[4] Free Press Comments at 105-07, 111-12.

with the open Internet. Second, such services should not compromise the offering of a robust open Internet access service. The services should be logically or physically separated to avoid generating congestion on the open Internet access service, and the services should not further retard current trends of steady, albeit slow, growth in typical Internet access service speeds. Third, network capacity for such services should not be provided on an exclusive or discriminatory basis to affiliates or partners of the network operator, but instead should be offered on a comparable basis under similar terms and conditions to all third party vendors. Finally, the Commission must ensure comprehensive disclosure of network management related not solely to the provision of open Internet access services, but also to any additional services that share infrastructure with open Internet access services.

A. Specialized services must not duplicate or replicate services available over the open Internet.

As the Commission noted in the Public Notice, specialized services must not be "substantially similar to" services available over open Internet access.[6] A related concern raised in the Public Notice is whether specialized services will substitute for content, applications, and services available over the open Internet, causing the Internet as we know it today to "wither as an open platform for competition, innovation, and free expression."[7] Free Press shares these concerns. The open Internet functions as a general-purpose technology, suitable for a broad and open-ended range of uses, above and beyond the economic — the Internet also serves as an engine and a medium for democratic, social, political, and artistic endeavors. Allowing it to "wither" and be replaced by "specialized" services, designed not to be general purpose

[5] *Open Internet NPRM*, para. 9.
[6] *Notice* at 2.
[7] *Id.*

technologies but to enable direct access to a small range of pre-programmed and third-party controlled content, applications, and services, would cause immeasurable public harm to the numerous social and economic externalities associated with the open Internet.

To avoid these potentially dire outcomes, specialized services must be segregated from general purpose open Internet access services. Services that are intertwined with Internet access services yet offer prioritized transport — such as a "priority package" for some content or web sites bundled with Internet access service[8] — must be categorically classified within Internet access services, subject to the full range of open Internet protections. Services that are segregated from Internet access services and that serve a distinct purpose would not pose these same risks and could more safely be placed in a distinct regulatory category from open Internet access services and protected by separate rules.

Beyond this, services that have substantially overlapping functionality with Internet access also may cannibalize capacity or investment currently going towards transport for Internet access services, or content, applications, and services currently provided over Internet access services. A primary stated purpose for allowing specialized services to avoid nondiscrimination obligations and other protections for consumers, competition, and innovation on the open Internet is that such services will "provide consumers new and valued services."[9] Yet, if specialized services are allowed to develop in a manner that merely replicates available functionality on the open Internet — for example, by creating new, prioritized video streaming services that replicate the functionality of current generation Internet streaming services like

[8] *Notice* at 2 ("A similar concern may arise if specialized services are integrated into broadband Internet access service; for example, if a broadband provider offers broadband Internet access service bundled with a "specialized service" that provides prioritized access to a particular website.").

[9] *Notice* at 2; *see also Open Internet NPRM* at para. 9.

Hulu or Netflix — such services will inevitably drive users, traffic, and investment away from the open Internet, with substantial deleterious consequences, as the Commission has noted.[10]

The Commission should prevent such evolution by defining specialized services to exclude any offering that replicates functionality currently over the open Internet. In so specifying, the Commission need not resolve ex ante all questions of what would replicate the functionality of the open Internet. Rather, rules should provide clear guidance to service providers on the purpose and design of such services, and should provide for clear authority for the Commission to promote investment and protect users of the open Internet.

The Public Notice seeks comment on limiting specialized services.[11] A narrow categorical limit of public interest purposes for specialized services, such as permitting only services that function for telemedicine or public safety, would suffice adequately to preserve the open Internet. More broad language, however, would introduce substantial loopholes. In particular, a rule that limited specialized services to "functionality that cannot be provided via broadband Internet access service," although it strikes the right spirit, would in practice create strong incentives to narrow the capacity of the Internet access service (either explicitly, or by reducing investment over time), thus increasing the scope of services that cannot be provided and the scope of potential specialized services. In addition to encouraging growth in specialized services and withering of the open Internet, such incentives would even more rapidly constrict the open Internet in violation of the goal of promoting robust open Internet access services. A

[10] *Notice* at 2. Furthermore, such prioritization would not result in any substantial economic boon for network operators, as the potential return on prioritization services as applicable to existing functionality is drastically limited. *See* S. Derek Turner, "Finding the Bottom Line: The Truth About Network Neutrality & Investment" (October 2009), at http://www.freepress.net/files/Finding_the_Bottom_Line_The_Truth_About_NN_and_Investment_0.pdf.

[11] *Notice* at 4.

better solution is a more specific limitation on the functionality of specialized services, prohibiting them from replicating the functionality of Internet access services.

B. Robust open Internet access services must be preserved against potential harm by specialized services.

Specialized services should not compromise the offering of a robust open Internet access service[12] — the services should be logically or physically separated to avoid generating congestion on the open Internet access service, and the services should not further retard current trends of steady, albeit slow, growth in typical Internet access service capacity. The United States continues to fall further behind the rest of the developed world in capacity in Internet access services.[13] Furthermore, in its most recent report pursuant to Section 706 of the Telecommunications Act of 1996, the Commission stated that advanced telecommunications capability was not being deployed to all Americans on a reasonable and timely basis.[14] Permitting specialized services to further restrict and retard growth in Internet access services would prevent the Commission from meeting its statutory objectives, and would prevent the United States from having any chance to catch up and offer world-class broadband Internet access services.[15]

Offering a robust open Internet access service involves two technical calculations. The

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[12] *Notice* at 2.

[13] *See, e.g.*, Sascha Meinrath & James Losey, *Denial of Service: Don't believe the telecoms. Broadband access in the United States is even worse than you think*, Slate, Apr. 28, 2010, http://www.slate.com/id/2252141/

[14] *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 09-137; *A National Broadband Plan for Our Future*, GN Docket No. 09-51, Sixth Broadband Deployment Report, 25 FCC Rcd 9556 (2010); 47 U.S.C. § 1302(b).

[15] *See, e.g.*, Free Press Comments at 105.

underlying capacity of the physical service must be sufficiently robust, and a sufficient portion of that capacity must be allocated to the open Internet access service. Although the Commission should strive to structure all its policies and rules in a manner that encourages and promotes investment in increasing overall broadband capacity, rules related to specialized services will (and should) naturally focus on the latter portion of the equation — how much capacity within a broadband connection is allocated to the open Internet, and how much to other services.

The Public Notice seeks comment on two frameworks of protections for robust Internet access services. First, the notice seeks comment on potential rules that would require the continued provision or expansion of network capacity for broadband Internet access services.[16] Although the spirit of such a rule is meaningful, the practical implementation would almost certainly produce loopholes. Any rule that fixes a minimum open Internet access service speed, or fixes a minimum rate of growth, would permit minimal rather than proportional investment; such a rule would slow and delay harm to the open Internet, but would not prevent it.

The second framework in the notice targets more directly the separation of services. The Public Notice suggests and seeks comment on a rule that would "prohibit specialized services from inhibiting the performance of broadband Internet access services at any given time, including during periods of peak usage."[17] Such a rule would be helpful, but would still fail to ensure that broadband capacity available for Internet access services is not merely left at current levels, with future capacity carved off for the sole use of specialized services.

As these limited approaches to cabin the growth of specialized services will fail to eliminate all loopholes, the Commission should base its oversight of specialized services on broader rules regarding robustness, backed by clear enforcement authority. The Commission

[16] *Notice* at 4.

must have the legal authority to sanction or enjoin a provider of broadband services who deliberately skews its services away from open Internet access services and towards specialized services. Given clear enforcement authority, the Commission can adopt a broad rule against the constriction of robust open Internet access services, or in the alternative a positive obligation for broadband service providers to offer robust open Internet access services. The Commission can then evaluate all individual circumstances on a case-by-case basis, retaining flexibility for future market dynamics.

The Public Notice seeks comment on whether to require providers to offer open broadband Internet access services on a stand-alone basis, separate from any specialized services.[18] Such a requirement is essential to maintain meaningful consumer choice and to support incentives and market conditions that will facilitate robust open Internet access services. This is particularly true in the current market for broadband services, characterized by limited or nonexistent competitive choices;[19] poor competition greatly limits subscriber choice over specialized services, and any form of mandatory bundling of open Internet access services with one or more specialized services would create unanticipated harm for competition and the viability of robust open Internet access services.

The Public Notice seeks comment on whether specialized services "raise unique issues" when provided over mobile wireless platforms.[20] The Public Notice is silent on why network management may be different for mobile wireless platforms, and the Commission's original

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[17] *Id.*
[18] *Notice* at 3.
[19] *Notice* at 3 ("These concerns … may be exacerbated by worries that due to limited choice among broadband Internet access service providers, consumers may not be able to effectively exercise their preferences for broadband Internet access service (or content, applications, or services available through broadband Internet access service) over specialized services.").
[20] *Notice* at 4.

notice stated that all open Internet protections should be applied to all platforms.[21] However, since the 2009 NPRM, a substantial amount of ink has been spilled by the mobile wireless industry, in an attempt to establish that wireless is different and cannot be adequately managed through reasonable and nondiscriminatory methods, and that spectrum constraints and the shared nature of wireless infrastructure justify granting a broad exemption for wireless services from consumer protection rules.[22] Lobbyists and thousands upon thousands of advertising dollars have taken an issue that was once settled and made it again unsettled.

Whether the Commission now believes that mobile wireless is different or not, granting a wireless exemption from nondiscrimination and simultaneously permitting the offering of specialized services on mobile wireless platforms would create an inescapable and hypocritical contradiction. If wireless is indeed so constrained that providers cannot even limit their network management practices to those that are either nondiscriminatory or otherwise reasonable, then certainly these overwhelmingly greater technical constraints ought to counsel against allowing mobile broadband service providers to offer any additional specialized services. As the industry often alleges, the "shared" nature of spectrum and wireless infrastructure use across all services may create technical complications for the offering of Internet access and voice telecommunications services. Permitting the offering of specialized services exempt from open Internet protections would thus presumably further reduce capacity for mobile wireless

[21] *E.g.*, *Open Internet NPRM*, para. 13.

[22] *See, e.g.*, Comments of CTIA, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52 (Jan. 14, 2010); *but see* Comments of The Wireless Internet Service Providers Association (WISPA), *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 1 (Jan. 14, 2010) ("In general, WISPA supports adoption of the Commission's six proposed network neutrality rules"); Comments of Clearwire, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 9 (Jan. 14, 2010) ("Clearwire agrees with the Commission that nondiscrimination is an appropriate principle for this open

broadband Internet access services and mobile voice telecommunications services that are supposedly already highly constrained. Furthermore, the Commission has made mobile broadband connectivity a centerpiece of its broadband policy, including in the National Broadband Plan;[23] allowing such a central technology to be further jeopardized in the name of unproven prospective services seems particularly detrimental. The Commission must either hold that mobile broadband is a competent technology and should have no distinctions in applicable rule frameworks (although reasonable network management would in practice be tailored to parochial limitations of any network), or that mobile broadband service is so constrained that it cannot support the offering of any specialized services.

C. Specialized services must not be permitted to harm competition within broadband services.

Separate from protections for the open Internet, the Commission should structure rules for specialized services to promote competition and prevent anti-competitive behavior in the offering of such services.[24] Network capacity used for specialized services should not be provided on an exclusive or discriminatory basis to affiliates or partners of the network operator, but instead should be offered on a comparable basis under similar terms and conditions to all third party vendors.

The Public Notice suggests a limitation on exclusive offering of such services.[25] A rule that solely prohibits exclusive offerings would not promote competition in the offering of specialized services, as it would introduce multiple loopholes. For example, a provider of transmission capacity could carry its own specialized services for free, but could charge

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Internet proceeding").

[23] National Broadband Plan at xiii, 146.

[24] *Notice* at 3, 4.

infeasible amounts to any would-be competitor. Unless the Commission is prepared to adopt a form of structural separation by preventing network operators from offering any specialized services, greater protections are required.

Past precedent in communications regulation offers two approaches to questions of competitive access in vertically integrated systems: wholesale access in telecommunications services, and carriage of content in cable systems. Rate regulations — either direct Commission-established caps or broader rules requiring "reasonable rates" — can effectively prevent infrastructure providers from overcharging competitors. A weaker approach based on cable television rules, requiring nondiscriminatory deals for specialized services under "comparable terms and conditions," could also have success if properly enforced. However, the cable rules have recently generated widespread calls for reform,[26] in large part because the confidential nature of carriage contracts has prevented the Commission from gathering data to identify what would constitute "comparable terms and conditions." Should the Commission adopt a similar system in its rules for specialized services, the Commission would be wise to require confidential disclosure to the Commission of contract terms for specialized services deals *ex ante*, to forestall such an outcome and the harms to competition and consumer choice that would result.

D. The Commission must ensure adequate transparency for all broadband services.

The Commission must establish rules regarding transparency in the advertising and the provision of specialized services in order to protect consumers and the continued viability of open Internet access services. Transparency rules for specialized services must include two

[25] *Notice* at 4.

[26] Comments of Media Access Project, *Petition for Rulemaking to Amend the Commission's Rules Governing Retransmission Consent*, MB Docket No. 10-171 (May 18, 2010) (requesting that the Commission reform retransmission consent rules along with its program access and

components: advertising rules to make clear the specialized and non-general purpose nature of the services, and disclosure rules to inform consumers of the impact of offering such services on open Internet access services.[27]

Advertising rules are necessary to ensure that consumers do not choose specialized services in the belief that they will provide access to the vast markets of commerce and innovation available on the open Internet. Advertising rules are a supplement to, rather than a substitute for, rules preventing specialized services from replicating the functionality of open Internet access services. Both are required to prevent specialized services from taking content, applications, and services — and investment and economic growth — away from the open Internet, causing it to wither and costing society the many social and economic externalities associated with the general-purpose Internet access service.

The Commission must ensure also comprehensive disclosure of information related to the provision of specialized services. Such disclosure must include network management practices related to specialized services, as they share infrastructure with open Internet access services, and their management necessarily impacts all other broadband services. At a minimum, specialized services use capacity that otherwise could provide a more robust broadband Internet access service. Depending on their engineering, specialized services could have an even more direct impact.[28] Consumers choosing whether to subscribe to specialized services must have sufficient information on the impact these services will have on their open Internet access services. And, consumers fortunate enough to have a meaningful choice of broadband service providers should be given sufficient information to make a meaningful distinction based on

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program carriage rules).

[27] *Notice* at 3.

[28] Free Press Comments at 108-110.

actual likely service performance, as well as any limitations associated with the use of the open Internet access service, specialized services, or any combination thereof.

II. Applying Network Neutrality Rules to Wireless Networks Must Be a Cornerstone of the Commission's Open Internet Policy.

In order to protect speech, commerce, culture, and innovation online, the Commission should apply consistent network neutrality rules across broadband platforms. In particular, open Internet rules must apply to wireless networks. Though wireless networks may possess different technological characteristics, those characteristics — including reliance on spectrum and the mobile nature of some wireless connections — should not exempt wireless networks from network neutrality principles. Rather, a flexible reasonable network management standard will permit wireless network owners to adequately manage their traffic while ensuring that the open Internet continues to flourish, regardless of the technology used to access it.

A. Applying open Internet rules to wireless networks comports with the way consumers currently perceive and use Internet access, follows the FCC's longstanding policy of technological neutrality, and will prevent demonstrable harm.

As early as 2005, the Commission recognized that one of the goals of any open Internet policy should be to "promote the open and interconnected nature of the public Internet."[29] This characterization, in turn, implicitly acknowledged that there is only one public Internet — rather

[29] *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*, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*).

than a series of balkanized networks — and that preserving that interconnectedness is an important public policy goal. Commerce and speech currently flow seamlessly from one technological platform to another, and consumers perceive and expect that they will enjoy the same protections regardless of whether they access the Internet via a wireless or wired connection.

If anything, the flexibility to access the Internet via both wired and wireless networks has increased since 2005. Long gone are the days when Internet users were chained to a fixed desktop computer that could only be used with one network connection. Laptop use is widespread, and many users have abandoned the desktop computer entirely.[30] Many of these laptops can readily switch from an Ethernet cable to a WiFi network to a 3G wireless connection.[31] Many popular phones have both WiFi antennas and cellular radios and can run nearly all the same applications and access the same content as laptops.[32] Netbooks and tablet computers blur the lines further — such devices are often sold with mobile wireless plans, and they serve some of the functions of a computer while offering the mobility associated with smaller and lighter devices.[33] From the Internet user's vantage point, there are no longer fixed categories of wireline and wireless devices; many devices transcend those categories. The

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[30] *See* Charles Arthur, *How Laptops Took Over the World*, The Guardian, Oct. 28, 2009, http://www.guardian.co.uk/technology/2009/oct/28/laptops-sales-desktop-computers.

[31] *Laptop Buying Guide: What Do I Need to Stay Connected on my Laptop*, CNET Reviews, http://reviews.cnet.com/2719-7602_7-273-5.html (last visited Oct. 9, 2010).

[32] *See, e.g.*, iPhone 4 Technical Specifications, http://www.apple.com/iphone/specs.html (last visited Oct. 9, 2010).

[33] *See, e.g.*, Brian Nadel, *3G Netbooks: Are They the Cell Phones of the Future?*, ComputerWorld, Feb. 25, 2009, http://www.computerworld.com/s/article/9128175/3G_netbooks_Are_they_the_cell_phones_of_the_future_; iPad – iPad WiFi + 3G, http://store.apple.com/us/browse/home/shop_ipad/family/ipad?aid=AIC-WWW-NAUS-K2-BUYNOW-IPAD-INDEX&cp=BUYNOW-IPAD-INDEX#data-plan-faqs (last visited Oct. 9, 2010).

Commission can and should foster the innovation and interconnectedness that the seamless transitions between wired and wireless networks that these emerging devices allow. Adopting rules that afford the same protections to users of both types of connections is the best way to accomplish that goal.[34]

Extending network neutrality protections to wireless networks comports with the FCC's oft-cited goal of treating similar services alike. With respect to differential treatment of wireless networks, the risks are three-fold. First, in the context of broadband regulation, the Commission has specifically emphasized that technological neutrality encourages potential investors to make "market-based, rather than regulatory-driven, investment and deployment decisions."[35]

[34] For example, adopting differential rules for wireless networks could stifle innovation and user choice in a very tangible ways. An iPhone user might be able to access one category of content in his home via his WiFi network, only to lose his ability to connect to the same content while waiting at a bus stop on the sidewalk outside his house. For the user, his interest in the content is unaffected by his location and the platform over which he obtains access to the Internet. The content creator's interest in reaching the user is likely similarly undiminished by the user's switch to the mobile network; if anything, significant content is targeted specifically at the mobile user. It makes no sense for the Commission to adopt a disparate set of rules for wireless networks when users and content creators should perceive and do perceive wired and wireless networks as effectively interconnected.

[35] *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 Rcd14853, 14878, at para. 49 (2005) (*Wireline Broadband Order*), *petitions for review denied*, *Time Warner Telecom,Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007) ("[W]e believe that we should regulate like services in a similar manner so that all potential investors in broadband network platforms, and not just a particular group of investors, are able to make market-based, rather than regulatory-driven, investment and deployment decisions."); *United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as*

Application and content innovators should not face economic-based discrimination simply because the Commission chose to bless such discriminatory treatment based solely on the potential technical differences of some wireless networks. Those technological differences should drive these investment decisions; they should not be a get out of jail free card for network operators who are solely motivated to engage in economic discrimination through exclusionary or rent-seeking practices. Second, the Commission has recognized that consumers have limited choices among broadband providers,[36] and it has suggested that wireless broadband access may, in time, become an effective substitute for high-speed wireline access.[37] If the Commission intends to foster this competition, it must impose openness principles on both sets of networks. A closed wireless platform cannot become an effective substitute for an open wireline platform, even if those technologies ultimately reach speed and price parity. Third, independent research reflects that disproportionate shares of lower-income youth and minorities tend to access the Internet solely through mobile devices,[38] and the Commission has recognized that 90 percent of housing units unserved by broadband access could be reached most cheaply by extending 4G wireless access to those areas.[39] The Commission should not adopt rules that create open

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an Information Service, WC Docket No. 06-10, Memorandum Opinion and Order, 21 FCC Rcd 13281, 13293 (2006) (statement of Kevin Martin, Chairman) ("I believe that it is the Commission's responsibility to help ensure technological and competitive neutrality in communications markets."); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No.07-53, Declaratory Ruling, 22 FCC Rcd 5901, 5925, paras. 55,70 (2007) (*Wireless Broadband Declaratory Ruling*).

[36] *See* National Broadband Plan at 37.

[37] *Id.* at 41.

[38] *See* John Horrigan, Pew Internet & American Life Project, *Wireless Internet Use* 18 (2009), *available at* http://pewinternet.org/~/media//Files/Reports/2009/Wireless-Internet-Use-With-Topline.pdf; John Horrigan, Pew Internet & American Life Project, *Home Broadband Adoption 2009* 32 (2009), *available at* http://www.pewinternet.org/~/media//Files/Reports/2009/Home-Broadband-Adoption-2009.pdf.

[39] Federal Communications Commission, *The Broadband Availability Gap* 13 (Omnibus Broadband Initiative, OBI Technical Paper No. 1, 2010), *available at*

networks for those who can afford them and relegate low-income, minority, and rural Americans to an Internet without free speech protections and cutting-edge innovation. Because a rule that treats wireless networks differently from wireline networks could distort investment incentives and imperil user choice, the Commission should disfavor such a rule.

Finally, the Commission should adopt open Internet rules that reach wireless networks because users need Commission intervention in the wireless space. The threat that wireless networks may develop into fundamental non-neutral platforms is real. For example, the terms imposed by most major wireless carriers purport to prohibit the use of, at minimum: peer-to-peer applications, either in general[40] or when transmitting to multiple recipients;[41] Web broadcasts;[42] server or host applications;[43] and tethering.[44] And various carriers have committed specific and blatant network neutrality violations in recent years. For example, AT&T blocked its users from installing and using Sling Player, a mobile video application, for almost a year before relenting to its distribution and use.[45] Similarly, AT&T and Apple colluded to limit users' ability to use

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http://download.broadband.gov/plan/the-broadband-availability-gap-obi-technical-paper-no-1.pdf.

[40] "Plan Terms," AT&T, at http://www.wireless.att.com/cell-phone-service/legal/plan-terms.jsp (AT&T TOS) (see section titled "What Are The Intended Purposes Of The Wireless Data Service?").

[41] *See, e.g.*, T-Mobile, "T-Mobile Terms and Conditions," at http://www.tmobile.com/Templates/Popup.aspx?PAsset=Ftr_Ftr_TermsAndConditions&print=true (T-Mobile TOS).

[42] AT&T TOS, *supra* note 40; "Terms & Conditions," Verizon Wireless, at http://support.vzw.com/terms/products/broadbandaccess_nationalaccess.html (Verizon TOS).

[43] "PCS Terms & Conditions," Sprint, at http://www.sprintpcs.com/common/popups/popLegalTermsPrivacy.html (Sprint TOS); AT&T TOS, *supra* note 40; Verizon TOS, *supra* note 42; T-Mobile TOS, *supra* note 41.

[44] T-Mobile, *supra* note 41. Both AT&T and Verizon Wireless allow tethering, but only after the subscriber pays an additional fee. AT&T TOS, *supra* note 40; Verizon TOS, *supra* note 42.

[45] *AT&T Relents over Sling Apps*, CBS News, http://www.cbsnews.com/stories/2010/02/04/tech/main6174751.shtml (Feb. 5, 2010);

Skype over AT&T's 3G network.[46] In 2007, Verizon Wireless declined to allow NARAL Pro-choice America, a national abortion rights group, from transmitting text messages via its network.[47] Verizon argued that it had a right to block "controversial or unsavory" messages.[48] And in Canada, Telus Communications blocked its Internet subscribers from accessing a website supporting striking union members.[49] All of these actions threaten user choice and freedom online, and adopting network neutrality rules for wireless networks will allow the Commission to take action against these kinds of practices in the future.

B. A rule of general application that includes a flexible definition of "reasonable network management" allows wireless carriers and the FCC to make allowances for capacity limitations in some existing wireless networks.

In the NPRM, the FCC has proposed that "subject to reasonable network management," broadband Internet access providers must treat lawful content and applications in a nondiscriminatory manner.[50] This standard allows for significant flexibility and should allow all carriers to manage their networks effectively while simultaneously preserving the Internet as an open medium.

What constitutes a reasonable network management practice may vary based on the particular network at issue. That is, the FCC may find one practice reasonable if deployed in the context of a wireless carrier managing congestion among 40,000 people congregated at the

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[46] Ryan Singel, *Google Voice App Rejection: AT&T Blames, Apple Denies, Google Hides*, http://www.wired.com/epicenter/2009/08/apple-att-and-google-respond-to-feds-on-google-voice-rejection/ (Aug. 21, 2009).

[47] Kim Hart, *Verizon Ends Text-Message Ban*, WASH. POST (Sept. 28, 2007), http://www.washingtonpost.com/wp-dyn/content/article/2007/09/27/AR2007092700823.html.

[48] Adam Liptak, *Verizon Blocks Messages of Abortion Rights Group*, N.Y. TIMES (Sept. 27, 2007), http://www.nytimes.com/2007/09/27/us/27verizon.html.

[49] *Telus cuts subscriber access to pro-union website*, CBC News, http://www.cbc.ca/canada/story/2005/07/24/telus-sites050724.html (July 24, 2005).

[50] *Open Internet NPRM*, para. 104.

National Mall, but that same practice might be unreasonable if used over a fiber-optic cable in the middle of the night, when very few users are online. Indeed, what's reasonable for one wireline network might not be reasonable for another one: the shared nature of the cable plant introduces problems distinct from the more limited, but unshared DSL line, itself distinct from the relatively powerful FTTH connection. The rules as proposed allow the FCC to evaluate reasonableness based on context, and that context necessarily includes the technological characteristics of the network at issue. Other considerations, such whether discriminatory network management occurs for legitimate, as opposed to anti-competitive or anti-consumer, purposes, whether the practice at issue is limited in time, geography, and scope, and whether the practice has significant collateral consequences, also should be relevant to evaluating whether network management is reasonable on wireless networks.

Applying these and other criteria will allow ample flexibility in addressing traffic management practices. Maintaining Commission oversight and flexibility more effectively balances the needs of wireless network operators to manage their networks and the needs of consumers, creators, and innovators in preserving the Internet as a vibrant medium for speech, commerce, and culture on online. The alternative — exempting wireless network access from open Internet rules or limiting those rules in some way — risks breaking the Internet in half: preserving one free and open Internet over wireline and allowing the Internet as accessed via wireless devices to become a walled-garden of limited and fragmented content.

Similarly, nothing in the Commission's proposed open Internet rule would prevent carriers from employing *nondiscriminatory* network management practices. The record already reflects various nondiscriminatory practices currently employed by wireless network operators to manage congestion. For example, one commenter suggests that wireless carriers can offer

maintain guaranteed data rate service tiers without violating nondiscrimination rules, provided the tiers do not restrict or differentiate any usage of applications.[51] Wireless carriers can perform rate limiting techniques on individual users who exceed preestablished usage thresholds, taking into account the users' individual service plans, without discriminating on the basis of application or content.[52] Furthermore, "over-the-air" access layer technologies in wireless networks inherently limit the ability of any individual user to "hog" the shared network capacity.[53] Wireless carriers have also recently introduced pricing strategies to discourage excess data usage. Since the Commission instituted this proceeding, AT&T, one of the nation's largest wireless broadband providers, instituted new tiered pricing for data usage on the iPhone. Instead of unlimited broadband access, new AT&T subscribers can choose from two plans, both of which include a flat rate for a certain amount of usage and additional charges for usage that exceeds the data cap.[54] Verizon Wireless has indicated that it, too, intends to adopt a similar pricing structure within the next several months.[55] Though Free Press has doubts about whether such pricing ultimately benefits consumers and the public interest, it is a *neutral* strategy that may mitigate congestion.

Finally, the rule as currently proposed accounts for individual network differences without making artificial distinctions between wireless and wireline networks. Next generation

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[51] Comments of New America Foundation, Columbia Telecommunications Corporation, Consumers Union, Media Access Project, and Public Knowledge (NAF/CTC), *Preserving the Open Internet*, GN Docket No. 09-191, *Broadband Industry Practices*, WC Docket No. 07-52, at 44 (Jan. 14, 2010).

[52] *See id.* at 48.

[53] *Id.* at 55.

[54] *See, e.g.*, Chris Foresman, *New AT&T data plans milk data gluttons, lower costs for most*, Ars Technica, http://arstechnica.com/telecom/news/2010/06/new-att-data-plans-milk-data-gluttons-lower-costs-for-most.ars (June 2, 2010); *see also Notice* at 5.

[55] *See, e.g.*, Roger Cheng, *Verizon to Change Mobile-Data Plans*, WALL ST. J. (Sep. 24, 2010), http://online.wsj.com/article/SB10001424052748703384204575509640930858752.html.

wireless network connections may be faster and more robust than some last-mile DSL connections. For example, by 2013, Verizon expects that their LTE network to cover their entire nationwide footprint and offer speeds of between 5 to 12 Mbps.[56] By contrast, Qwest recently noted that in 20-30 percent of their footprint, there is no business case to upgrade their ADSL lines, and those areas will continue to receive service no faster than 1.5 to 3 Mbps.[57] There is nothing talismanic about delivering Internet access by radio that ought to exempt these comparatively fast and robust connections from basic open Internet protections.

Conclusion

The questions raised in this latest notice are important, but as the record clearly shows, they are questions that have been asked and answered. The Commission can always find ways to ask new questions, but we suggest that the Commission itself in its October 2009 NPRM already offered the right answers to the questions in this instant *Notice*: "Managed services" cannot be allowed to stifle the growth of the open Internet, either on the bandwidth supply side by artificially constricting supply, or on the application innovation side by replicating functionality of existing services. And because there is just one Internet, rules must apply to wireless and wired services.

The open Internet rules proposed by the Commission last fall strike the right balance on specialized services and wireless networks between the rigid and the flexible. They send the right signals to all market players and will ensure that the Internet remains a general-purpose platform that promotes unprecedented innovation and democratic participation. The Commission

[56] Verizon Communications, "Verizon Launches 4G LTE In 38 Major Metropolitan Areas by the End of the Year," Press Release, Oct. 6, 2010; Sarah Barry James, "Verizon COO expect nationwide 4G in 3 years," *SNL Kagan*, Oct. 6, 2010.

[57] Kurt Fawkes, Qwest Communications, Senior Vice President, Investor Relations, Oppenheimer Technology, Media and Telecommunications, Aug. 11, 2010.

should move swiftly to re-establish its role as a steward of the public interest in the broadband market, and implement rules to preserve the open Internet as proposed last fall.

Respectfully Submitted,

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Aparna Sridhar
Policy Counsel

M. Chris Riley
Policy Counsel

Free Press
501 Third Street, NW
Suite 875
Washington, DC 20001
202-265-1490