

**Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554**

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| In the Matter of: |) | |
| |) | |
| Protecting and Promoting the Open Internet |) | GN Docket 14-28 |
| |) | |
| Framework for Broadband Internet Service |) | GN Docket 10-127 |
| |) | |
| |) | |

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I. INTRODUCTION

The issue of net neutrality – or “protecting and promoting the open Internet” – is central to the future of the Internet. Adopting and enforcing the status quo of today, where local network operators (generally) do not block or manipulate traffic for parochial purposes, is essential to the maintenance of the “virtuous cycle” of innovation and investment that powers communications on the Internet today. The Commission must move forward with a final report and order that applies clear and solid authority and adopts enforceable rules to protect individual Internet users as well as developers.

One of the key contentions in this proceeding is the basis of authority the Commission should reference in adopting open Internet protections. The Notice of Proposed Rulemaking (NPRM) proposes to use Section 706, also known as Title I, as the basis for its authority,¹ the same rationale used by the Commission in the 2010 *Open Internet Order*.² As these comments demonstrate, the current proposal is rife with risk. Continuing down this path could produce failure on all fronts – a standard for network practices that doesn’t protect the open Internet, an outcry from public interest organizations and technology companies citing promises that were broken, a separate outcry from the interests that oppose any rules in this space at all, and finally, a loss in court review sending the Commission backwards.

Mozilla recommends the Commission instead use its clear authority under Title II of the Communications Act to adopt enforceable protections, either through reclassification of access services³ as telecommunications services or, as Mozilla has proposed, through recognizing a

¹ *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Notice of Proposed Rulemaking, FCC 14-61, para. 4 (rel. May 15, 2014) (*2014 NPRM*).

² *Preserving the Open Internet*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, 25 FCC Rcd 17905 (2010) (*Open Internet Order*).

³ In these comments, the term “access service” will be used to designate the local user subscription service offered by so-called “Internet Service Providers” for payment, the service widely described as the “Internet access service.”

separate telecommunications service within local access networks offered to remote edge providers.⁴ The latter approach offers a direct response to the D.C. Circuit’s reversal of past Commission orders and to evolving technology and market practices in local access network operation, consistent with law and precedent. With either approach, Title II authority would permit the Commission to reinstate an established policy baseline of standards widely accepted by industry and public interest alike. This is in contrast to the new, controversial policy proposals articulated in the NPRM, which when coupled with uncertain legal footing, offer no real stability for Internet users or developers.

Two questions of policy were left unresolved in the 2010 *Open Internet Order*: (1) how to treat paid prioritization, and (2) how to structure rules for mobile access services. On the former, the Order indicated a presumption that such services would be against the adopted rules.⁵ On the latter, the Order articulated a lower standard of protections, but implied that any violations of the higher standard used for fixed services would trigger Commission scrutiny, including the distinct possibility of extension of the fixed service rules to mobile.⁶ For these issues, Mozilla urges the Commission to avoid reliance on the failed political compromises that drove these decisions in the last Order. Instead, the Commission should prohibit paid prioritization and other “fast lane” approaches that improve the quality of one use of the access service at the direct expense of other uses. Additionally, the Commission should apply the same rules to mobile and to fixed networks alike, relying on reasonable network management to

To create a clearer contrast between such services and “the Internet”, representing the content, applications, and services that create the value of the access services, the word “Internet” is not used as part of the service labeling.

⁴ Mozilla, Petition to Recognize Remote Delivery Services in Terminating Access Networks and Classify Such Services as Telecommunications Services Under Title II of the Communications Act, GN Docket Nos. 09-91, 14-28, WC Docket No. 07-52 (filed May 5, 2014) (Mozilla Petition).

⁵ *Open Internet Order*, para. 76 (“[A] commercial arrangement ... to directly or indirectly favor some traffic over other traffic ... would raise significant cause for concern. ... [I]t is unlikely that pay for priority would satisfy the ‘no unreasonable discrimination’ standard.”).

⁶ *Id.* at para. 105 (“We will investigate and evaluate concerns as they arise. We also will adjust our rules as appropriate.”).

permit different practices in different networks reflecting the inherent constraints and opportunities of each, whether mobile or fixed and whether wired or wireless.

II. AUTHORITY

The NPRM's proposed reliance on Title I authority will leave any new open Internet protection adopted under this proceeding without real support. It is impossible simultaneously to adopt effective rules and to survive D.C. Circuit review on appeal under Title I, and efforts to try to hit a "sweet spot" will likely miss on both counts. Open Internet rules adopted using only Title I authority face significant risk of being overturned in court, will not adequately protect the open Internet, will create a slippery slope of further authority encroaching into the Internet itself instead of merely the access service, and will offer only minor benefits for political expediency.

In contrast, recognizing Title II classification for remote, edge provider facing delivery services would apply established law in a straightforward, natural fashion in the wake of the D.C. Circuit's recent opinions, consistent with decades of precedent around Internet services and with evolving technology and market practices in last mile access networks. Coupled with suitable forbearance, this approach is the best path forward to preserve the open Internet.

A. Using Section 706 as a basis for authority carries overwhelming risk.

First and foremost, the question the Commission must answer is whether rules adopted using Title I authority under Section 706 can survive court review in the D.C. Circuit. Both the proposed approach to no-blocking and non-discrimination rules carry significant risks, individually and together. The NPRM asserts that the D.C. Circuit indicated that open Internet

rules might be acceptable if structured as a requirement to offer a minimum level of service,⁷ with opportunities for individualized negotiation above that threshold.

Certainly, the Commission recognizes the inherent risk of relying on a few phrases that are essentially dicta.⁸ Additionally, because the NPRM does not propose a stand-alone no-blocking rule, but rather no-blocking in conjunction with non-discrimination, it carries even more risk.⁹ In practice, the NPRM proposes to require a minimum level of service, with additional rules to ensure reasonable behavior (through some standard). This coupling looks structurally identical to sections 201(a) and 201(b) of the Communications Act, the heart of common carriage under Title II, particularly when viewed from the perspective of an edge provider: Section 201(a) mandates the provision of service (equivalent to not blocking), while Section 201(b) specifies that practices for such a service must be just and reasonable (equivalent to the proposed “commercially reasonable” practices rule). If the Commission adopts these rules together, using Title I authority, the D.C. Circuit could view this as an attempt to reframe Title II’s core concepts with slightly different language, and may toss the whole mix out as it did the 2010 *Open Internet Order*.

On discrimination, the NPRM’s description of a “commercially reasonable” standard seems intended to achieve one of two possible goals. The first is to replicate in practice the functionality of the 2010 *Open Internet Order*’s rule against “unreasonable discrimination,” but repackage the same standard under a label that has been approved in other contexts by the D.C.

⁷ 2014 NPRM, paras. 89, 97.

⁸ For example, the cited language includes qualifiers such as “might” and “might not” for all of its assertions of valid approaches. 2014 NPRM, para. 93.

⁹ The NPRM (in para. 117) articulates these rules as separate, perhaps in an attempt to resist the repercussions of coupling the rules together. However, if adopted together, they will be viewed together, even if evaluations of potential violations are performed separately.

Circuit.¹⁰ The second, and more likely, possibility is that the Commission intends to water down the 2010 *Open Internet Order*'s standard through some new interpretation of a “commercially reasonable” standard, not because of a change of heart on the best policy approach, but solely to try to hit a “sweet spot” where the D.C. Circuit is willing to view the regulations as not common carriage, yet the protections are enough for the open Internet. No such sweet spot exists.

Watering down the standard for discrimination to allow differential treatment (as implied to be necessary for court approval) by definition removes the level playing field needed to protect the open Internet.

Were the Commission to adopt inadequate rules under Section 706, and achieve court blessing on the rules, it would carry additional risks beyond this proceeding. Section 706 does not clearly delineate the scope of Commission authority as limited to the access service, separate from the Internet itself. Establishing precedents that reinforce Commission authority over information services, on the grounds that the actions advance the cause of broadband deployment generally, could inadvertently create a slippery slope towards other exercises of Commission authority over information services – in great contrast to Title II, which by definition applies only to telecommunications services.

To offer an example of this risk, some websites responded to the proposed NPRM by implementing a slow lane. Specifically, if their website was viewed by someone connecting from an IP address associated with the Commission, their server limited the rate of exchange of

¹⁰ In fact, the D.C. Circuit seems to have preemptively addressed this possibility in its discussion of the court case upholding a “commercially reasonable” standard. *Verizon v. FCC*, No. 11-1355 (D.C. Cir. Jan 14, 2014) (*Verizon*), slip op. at 50 (“[W]e cautioned that were the Commission to apply the “commercially reasonable” standard in a restrictive manner, essentially elevating it to the traditional common carrier “just and reasonable” standard, see 47 U.S.C. § 201(b), the rule might impose obligations that amounted to common carriage *per se*, a claim that could be brought in an “as applied” challenge. *Cellco*, 700 F.3d at 548– 49.”).

information with that user to dial-up modem speeds.¹¹ The outcome of this practice is comparable to a network operator discriminating against an individual user; the only difference is the source of the block, whether a server operator or a network operator. But, the website hosting and the access service are both currently viewed as “information services” and are formally subject to the same authority under Title I. Thus, the Commission might be able to use Section 706 authority to prevent the website operator from slowing down Commission connections, an extension of its authority into the behavior of website operators themselves. This risk would be ameliorated were the Commission to use Title II as the basis for its authority in this proceeding and affirmatively forego any theoretical authority it possesses under Section 706 for purposes of adopting blocking and discrimination rules.

The most significant reason explaining the Commission’s preference for Title I and Section 706 is not grounded in policy, law or technology, but sheer politics. For some time now, the focus of many opponents of enforceable net neutrality rules has been on Title II. As a result, it may seem tempting to lower the perceived cost of implementing open Internet protections by avoiding Title II. But pursuing this particular political expediency will not help as much as it may seem. To the contrary, attempting to move forward with Title I as the sole basis of authority will in fact trigger two separate and powerful political opposition forces – public interest organizations and technology companies objecting to the pretense of real rules and claiming that high-profile promises were broken, while simultaneously, opponents of any government actions, particularly those related to the Internet, will protest because the Commission has done anything at all when in their view all action is unnecessary and harmful.

¹¹ Robert McMillan, “Websites Throttle FCC Staffers to Protest Gutting of Net Neutrality,” *Wired* (May 16, 2014), at <http://www.wired.com/2014/05/fcc-throttling/>.

Another approach suggested by some in an attempt to lessen political opposition is adopting rules under Section 706 with Title II as a “backup” of sorts.¹² A variant on this is the argument that the Commission can come back and consider Title II yet again, should a third attempt to adopt rules under Title I prove unsuccessful. The concern with both of these possibilities is that future Commissions may choose not to act and will thus leave the open Internet undefended. Internet users and developers need protections that will be enforceable and sustainable, without arbitrary discretion or additional massive political actions. And the risk of future harm is not necessary as a matter of law, technology, or policy to achieve “flexibility,” as sufficient flexibility is provided through the concepts of reasonable network management and specialized services.

B. Recognizing Title II remote delivery services is the most compelling path forward.

In contrast to all of the above risks with sole reliance on Title I authority, the Mozilla petition offers a compelling path forward for the Commission to ground open Internet protections. It is a natural “next step” in the evolution of telecommunications law in the wake of the D.C. Circuit’s *Verizon* decision. And it provides a strong basis for the Commission to ground effective protections for the open Internet and the virtuous cycle of innovation and investment.

The Mozilla petition, at its core, asks the Commission to recognize a new type of service, one that has never before been classified, because at the time of the Commission’s past classification orders, this type of service did not exist. It has emerged from the evolving technologies and practices of access service providers in their management of the telecommunications capability recognized to exist within local access networks. Specifically, the

¹² See, e.g., Tim Wu, “The Solution to the F.C.C.’s Net-Neutrality Problems,” *The New Yorker* (May 9, 2014), at <http://www.newyorker.com/online/blogs/elements/2014/05/tom-wheeler-fcc-net-neutrality-problems.html>.

(relatively new) capacity to identify and differentiate traffic according to individual edge providers has created a legally distinguishable (but not technologically distinct) service that includes the offering of delivery of traffic, upstream and downstream, to a remote edge provider.¹³

The nature of this service is unique, in that it shares the same physical portion of the network path as a user facing access service. It is a mirror of the local user service – where the access service offered to subscribers connects each of them to the entire Internet, in the reverse, the remote delivery service connects each of the Internet’s edge providers to all of the local network’s subscribers.¹⁴

It works a little bit like a doorman in a high-end condominium or apartment building. The doorman offers a service to the building’s residents, in holding their mail (whether it has arrived or is waiting to be sent out). But the doorman is also, at the same time, effectively offering a service to Amazon, Best Buy, Netflix (for its DVD shipments), and any other company that the resident purchased a good from. In this metaphor, the doorman (who functions as the gatekeeper for millions of individual residents) is considering asking some shippers to pay more to make sure the subscriber gets their goods right away, while packages from non-preferred shippers might be left in the mailroom for a day or two. Mozilla is asking for the relationship between the doorman and the shipper to be codified, separate from the relationship between the doorman and the resident, even though the act of holding onto the packages is the same for both relationships.

Because the scope of the Mozilla petition is limited to routing of traffic within the local access network, it would not apply in any fashion to the activities of the edge providers themselves. Instead, it would clearly wall off “the Internet” from the access service, applying

¹³ Mozilla Petition, 6-8.

¹⁴ *Id.* at 8-9.

protective rules to the latter in order to safeguard the former from abuse. It would also not encompass interconnection or peering practices directly, as the scope is defined for only routing activities within the local network, up to but not including the point of interconnection.

Additionally, granting the Mozilla petition would not impact Content Delivery Networks (CDN's), as the Title II remote delivery service is effectively being offered to the CDN provider's client, who receives the ultimate benefit of delivery of traffic within the access network. As with interconnection, the technical scope of the Title II service would be routing along the network paths between each of the ISP's subscribers and the CDN cache. Rules applicable to the local network would thus protect the CDN's subscribers (and by extension the CDN operator, for purposes of local routing only).

The D.C. Circuit clearly indicated its views that the local access network includes two separate services. As the NPRM quotes, "broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers' 'carriers.'"¹⁵ Pulling this second service out as a separate legal construct is the most direct, natural next step in response to the court's opinion.

As demonstrated in Mozilla's petition, remote delivery services are telecommunications services.¹⁶ This characterization holds despite the statute's use of the term "directly," as that term does not require technical attachment for a service to be offered. Where a network operator has the capacity of disconnecting traffic for only a single edge provider, or charging only a single provider for differential treatment, there is certainly a "direct" connection in play.

Additionally, Title II is applicable even where the access service provider offers delivery to the remote edge provider without first-hand monetary payment. As a practical matter, because

¹⁵ 2014 NPRM, para. 55 (quoting *Verizon*, 740 F.3d at 653).

¹⁶ Mozilla Petition, 10-12.

the delivery service shares the telecommunications capability with a paid subscription service, the network operator is being paid a fee (by each of its local subscribers, and in some cases, by peering partners) in exchange for operating the local network, including the capability that underlies both the local user access service and the remote edge provider delivery service. As a legal formality, anything of value can be held by the Commission to constitute “a fee.” The edge provider offers Internet content desired by the (paying) local access service subscriber; in fact, without edge providers, the access service would have no value. As the Commission has noted, innovation at the edge is at the heart of the virtuous cycle of innovation and investment.¹⁷ To contend that edge providers offer nothing of value to access service providers would go against the Commission’s core broadband tenets as well as common sense.

In addition to establishing clear and sustainable authority, grounding open Internet protections in Title II authority would not complicate their definition or implementation. The rules themselves need not distinguish between end user beneficiaries or remote edge providers. The exact language and simple rules used in the 2010 *Open Internet Order* could be reintroduced without complexity, as the core of the D.C. Circuit’s objections was the treatment of edge providers on a common carriage basis – a problem directly addressed through Mozilla’s proposal. Those rules would also be able to prohibit a network operator from giving an advantage to its own services, even though no remote provider is involved, through ancillary authority (or even section 706) on the grounds that such a prohibition would target a single entity and would not be common carriage.¹⁸

¹⁷ 2014 NPRM, para. 26.

¹⁸ A network operator would similarly be prohibited from prioritizing a service offered only within its local network, on the grounds that such a prioritization would discriminate against Title II services offered to remote edge providers sharing the same network.

C. Forbearance furthers the objective of interpreting law in light of modern technology and markets, without undermining its core purposes.

The Commission has built a substantial record on the topic of forbearance from all of Title II's provisions.¹⁹ As a result, objections to Title II that emphasize additional procedural hurdles associated with forbearance should be dismissed outright. By the conclusion of this comment cycle, the Commission will have an ample record built on forbearance. Thus the Commission can adopt simultaneously a declaratory ruling on Title II; an order on forbearance to scale that authority back to the bare bones needed to preserve the open Internet; and rules to articulate what the open Internet protections mean in practice to provide certainty to network operators, Internet users, and developers alike.

Mozilla urges the Commission to keep those provisions of Title II applicable to the remote edge provider delivery service, and no others. Of these, the most crucial are sections 201, 202, and 208, which establish the basic tenets of common carriage and provide for a mechanism for enforcement. Other sections articulated in past proceedings as key provisions of Title II when viewed in the context of end user facing services, including sections 222, 254, and 255 identified in the NPRM, have less applicability in the context of remote edge provider services, and may not be required to be retained if the Mozilla petition is granted and used to support open Internet protections.²⁰ However, the Commission should strongly consider retaining section 251(a) and 256, in order to provide an unassailable legal basis for oversight of interconnection and peering practices, even though these sections may not be strictly necessary so long as sections 201 and 202 are effective.

¹⁹ The record, in docket GN 10-127, was also recently re-opened by the Commission to fold together comments in that proceeding (in 2010) with comments in this one.

²⁰ In making these observations, Mozilla notes the tremendous policy values and norms inherent in these sections – namely, privacy of consumer information, provision of universal service, and access to disabilities. However, their value applies to access services offered to individual consumers, not to remote edge delivery services as articulated in the Mozilla petition.

III. RULES

Mozilla supports the baseline policy framework as established in the 2010 *Open Internet Order*, namely, no blocking and nondiscrimination rules subject to reasonable network management. Mozilla advises the Commission not to abandon this core set of protections through this proceeding. Regarding the two issues left open, to a degree, after that proceeding, Mozilla encourages the Commission to prohibit paid prioritization, and to apply the same open Internet rules to mobile wireless access services as to fixed services.

Today, the status quo for local network management does not include fast and slow lanes. And as millions of Americans,²¹ joined by hundreds of technology companies²² and investors,²³ have made clear, that status quo must be preserved for the sake of the open Internet. The worst possible outcome of this proceeding would be a change to the well-settled normative framework by legitimizing paid prioritization. The consequences of such an action would impact not only the United States and the continued growth and innovation of the Internet here, but also the entire world.

A. A clean rule prohibiting blocking would be more workable and more sustainable than a new complex minimum level of service standard.

For fixed networks, the 2010 *Open Internet Order* adopted a clean, workable rule prohibiting blocking of “lawful Internet content, applications, services, or non-harmful

²¹ Over one million people supported a petition as early as January 30, 2014. *See, e.g.*, Free Press, “One Million Strong: Free Press-Led Coalition Tells FCC to Restore Net Neutrality,” (Jan. 30, 2014), at <http://www.freepress.net/blog/2014/01/30/one-million-strong-free-press-led-coalition-tells-fcc-restore-net-neutrality>.

²² Brian Fung, “Google, Netflix lead nearly 150 tech companies in protest of FCC net neutrality plan,” *Washington Post* (May 7, 2014), at <http://www.washingtonpost.com/blogs/the-switch/wp/2014/05/07/google-netflix-lead-nearly-150-tech-companies-in-protest-of-fcc-net-neutrality-plan/>.

²³ Brian Fung, “Now dozens of high-profile VCs are protesting the FCC’s net neutrality rules, too,” *Washington Post* (May 8, 2014), at <http://www.washingtonpost.com/blogs/the-switch/wp/2014/05/08/now-dozens-of-high-profile-vcs-are-protesting-the-fccs-net-neutrality-rules-too/>.

devices.”²⁴ The substance of the no-blocking rule triggered no great dissent, as it reflected common practices as well as widely accepted principles from the 2005 *Internet Policy Statement*. Thus, for good reason, the NPRM proposes adopting the same rule for fixed networks.²⁵

Two questions remain: first, whether the D.C. Circuit would approve the same rule under a new interpretation and in a new context, and second, whether the proposed interpretations of the rule are workable and would effectively prevent bad behavior. The first question was addressed earlier in these comments, so this section will address the second. The NPRM proposes to define a no-blocking rule in terms of establishing a minimum level of service, and offers three technical approaches to define that level. Although the spirit behind their approach is valuable, none of the three are likely to prove effective and workable in practice.

The first would require “best efforts” treatment as the “minimum level.”²⁶ This standard would conflate the no-blocking rule with the non-discrimination rule, implying that no traffic can ever be affirmatively throttled, or perhaps even going so far as to imply that no traffic can ever be prioritized or accelerated (as the impact would be that some other traffic is routed at worse than “best efforts”). It would therefore protect the open Internet, but would seem to go further than the Commission intends by subsuming the other rules, and would seem to constitute common carriage in a very direct sense. On the other hand, if interpreted more narrowly to permit prioritized treatment, then it wouldn’t protect against the emergence of a future where “fast lane” traffic uses nearly all of the available capacity of a local access service, relegating ordinary “best efforts” traffic to a “scavenger class” of scraps (even if such dregs of connectivity rendered those uses of the access service effectively useless and thus blocked in practice).

²⁴ *Open Internet Order*, para 63.

²⁵ *2014 NPRM*, para 94.

²⁶ *Id.* at para 102.

The second standard proposes an objective minimum threshold, performance that must be delivered in all circumstances to any use of the access service. Such a standard would effectively empower the Commission to determine what level of performance is needed for Internet applications and services to be satisfactory to users.²⁷ From the Commission where the definition of “broadband” meant 200 kbps or faster until 2008,²⁸ scaling such a standard over time seems prohibitively difficult. Furthermore, articulating a standard that covers all of the attributes of performance, including bandwidth, latency, and jitter, would be even more of a challenge. Applications and services have very different requirements, particularly around latency and packet loss.

The third standard is the most vague, and like the first, is a non-standard: sufficient access is what a “reasonable person” thinks sufficient access is.²⁹ Essentially, if VoIP, video streaming, web browsing, and file downloading seem to “work” well enough, then they are not being blocked. This standard would, by definition, be sufficient to make sure that applications and services are not blocked, because they “work.” However, such a standard does not offer much in the way of certainty or ease of enforcement.

None of these three standards offer improvements above a basic “no blocking” rule such as articulated for fixed access services in the 2010 *Open Internet Order*. The principle behind structuring a no-blocking rule as requiring a minimum quality of service for all traffic is worthwhile. However, as presented in the NPRM, the rule is destined for failure, particularly absent reliance on Title II authority. Some of the proposed interpretations of such a rule would prove more problematic than others, but no approach is a silver bullet. Moreover, the only reason

²⁷ *Id.* at para 103.

²⁸ Karl Bode, “200kbps Officially No Longer Qualifies as ‘Broadband’,” *DSL Reports* (June 13, 2008), at <http://www.dslreports.com/shownews/200kbps-Officially-No-Longer-Qualifies-As-Broadband-95253>.

²⁹ 2014 NPRM, para 104.

to invent such a new standard of minimum quality of service – to try to satisfy the D.C. Circuit’s dicta in *Verizon* – would be rendered moot were the Commission to rely on Title II authority, in which case the original fixed no-blocking rule from the 2010 *Open Internet Order* could be re-adopted without changes or additions. Mozilla recommends the Commission take this cleaner and more sustainable approach.³⁰

B. A standard prohibiting unreasonable discrimination is far better to protect the open Internet than the weaker proposed alternative.

The 2010 *Open Internet Order* adopted a rule on nondiscrimination that represented a largely settled balance of political and policy interests, a compromise lower than what public interest advocates called for, but one considered generally acceptable despite its inherent vagueness. The NPRM proposes a significantly weaker standard from this compromise, one that would mandate the use of only “commercially reasonable” practices, without mentioning the concept of discrimination.³¹ Such an approach is hardly “more focused,” as it could be read to apply to practices that didn’t constitute discrimination;³² however, it is certainly more flexible, and would appear to permit practices that would have been barred under the 2010 rule. No policy arguments are offered in the NPRM for this substantive weakening; instead, the only justification is that Title I authority cannot support the compromise standard previously settled on.

Experts have studied a variety of nondiscrimination standards, and the impact on innovation and choice of each.³³ According to Professor Barbara van Schewick, to protect the open Internet effectively, a nondiscrimination rule must protect innovation without permission,

³⁰ With a clean rule, the determination of whether a specific practice constitutes “blocking” would be made on a case-by-case basis as part of the course of an enforcement proceeding following an alleged violation.

³¹ 2014 NPRM, para 116.

³² *Id.*

³³ *E.g.* Barbara van Schewick, “Network Neutrality and Quality of Service: What a Non-Discrimination Rule Should Look Like,” *Stanford L.Rev.* (forthcoming 2014), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2459568.

user choice, application agnosticism, and low-cost innovation.³⁴ Professor van Schewick proposes a clear rule prohibiting application-specific discrimination while permitting application-agnostic discrimination such as implementing user signals of desired priority levels for their own traffic.³⁵ She demonstrates that such a rule would prove effective at preventing the kinds of harmful discrimination that threaten the open Internet. She also indicates, although the interpretation is somewhat uncertain, the rule included in the 2010 *Open Internet Order* likely meets the necessary requirements as well.³⁶

In contrast, the proposed “commercially reasonable” standard has been demonstrated to be difficult to manage,³⁷ and under no circumstances could it meet the requirements for effective protection of the open Internet as proposed. The *sine qua non* of the open, neutral Internet is that edge providers face a level playing field in the routing of their traffic within end users’ local access networks – the “terminating monopoly” faced by every edge provider. By definition, the proposed “commercially reasonable practices” standard is designed to create a slanted playing field by explicitly permitting “individualized negotiation” for better treatment.³⁸ Moreover, it is fundamentally misaligned in principle, as it focuses on the agent of delivery and its business models, rather than on the end user.

Carrying this further, throughout the NPRM, the Commission introduces factors for its analysis that would introduce loopholes of harmful practices. For example, the NPRM proposes a presumption that exclusive prioritization of an ISP’s own services or those of its affiliates

³⁴ *Id.* at 12-14.

³⁵ *Id.* at 90.

³⁶ *Id.* at 18-123.

³⁷ See Petition for Expedited Declaratory Ruling of T-Mobile USA, Inc., *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265 (May 27, 2014).

³⁸ 2014 NPRM, para. 111. The NPRM also seeks comment on how smaller players who will never enter into such negotiations will be impacted (para. 120) without noting the obvious conclusion, which is that such providers will face a disadvantage.

would be unreasonable,³⁹ but doesn't suggest that actively throttling competitors would be viewed in the same manner. The NPRM indicates the possibility of "pro-competitive" exclusive deals and discriminatory practices,⁴⁰ looking to program access arrangements in cable television as a model – despite years of broad understanding that independent voices are disadvantaged in that system.⁴¹ On protecting consumers, the NPRM's only proposal is transparency,⁴² even though protections for innovation and choice are certainly also important to consumers.

Yet despite the inherent weakness of the proposed standard, the rhetoric and speeches from the Commission have made clear an intention to effectively protect the open Internet. In a hearing before the House of Representatives, Chairman Wheeler indicated that "fast lanes" that degrade other service would be held to be "commercially unreasonable" under the proposed rules.⁴³ It's hard to reconcile such statements with the NPRM's proposed language, which on its face permits negotiation for better delivery.

Mozilla strongly encourages the Commission to set aside the proposed "commercially reasonable practices" standard, and restore the 2010 *Open Internet Order* rule (or a more clearly articulated equivalent), barring unreasonable discrimination subject to reasonable network management. This would preserve a settled policy and political balance, maintaining the status quo in place prior to the *Verizon* decision, while being readily supported by clear authority under Title II of the Communications Act. Anything less would disrupt that balance, introduce substantial legal risk, and effectively undermine the open Internet.

³⁹ *Id.* at para. 126.

⁴⁰ *Id.* at para. 128.

⁴¹ For one complaint under this system that rose to official status, see: Lee Petro, "Tennis Channel Raises Racket Against Comcast," *CommLawBlog* (Oct. 9, 2010), at <http://www.commlawblog.com/2010/10/articles/cable/tennis-channel-raises-racket-against-comcast/>.

⁴² 2014 NPRM, paras. 129-30.

⁴³ Brian Fung, "FCC chair: An Internet fast lane would be 'commercially unreasonable'," *Washington Post* (May 20, 2014), at <http://www.washingtonpost.com/blogs/the-switch/wp/2014/05/20/fcc-chair-an-internet-fast-lane-would-be-commercially-unreasonable/>.

C. Paid prioritization inherently degrades the open Internet.

The central substantive policy issue under discussion in this iteration of open Internet rules is whether to permit or prohibit paid prioritization arrangements.⁴⁴ To engage with this question, and to step away for a moment from basic concepts of “fast and slow,” it will help to differentiate prioritization arrangements in last-mile network management from other commercial arrangements that can provide technical advantages. In particular, paid prioritization is inherently different from paid interconnection or peering practices and from content delivery networks, because it is zero-sum as opposed to additive to network capacity and efficiency.

Prioritization, by definition, is engineered by assigning some packets higher priority than others. If a packet routed at line speed through a network encounters no congestion and no active throttling, it is not placed in any queues, and its priority does not matter because there is never an opportunity for a higher priority packet to be placed “ahead” of it. On the other hand, if the packet encounters congestion,⁴⁵ it is placed in a queue along with other packets, and priority levels could be used to determine the order in which packets are released from the queue and advanced through the network. As a result, whenever a higher priority packet is bumped up in a queue and effectively given priority, every packet that it passes by is left worse off and suffers degraded performance, in the form of higher latency, increased risk of packet loss, or in aggregate, lower bandwidth. Prioritization is inherently a zero-sum practice, and inherently creates fast and slow lanes and prevents a level playing field. Chairman Wheeler made these arguments more succinctly in his testimony before the House of Representatives, where he

⁴⁴ 2014 NPRM, paras. 10, 121.

⁴⁵ Congestion, in this context, does not mean only sustained congestion, a network that is overloaded. Even networks with light average utilization encounter sporadic congestion, perhaps for milliseconds at a time, enough to give a benefit to prioritized traffic, even if only in reducing latency and jitter rather than bandwidth. See Schewick, *supra* note 33, at 28, Box 8.

indicated that paid prioritization “interferes” with the “virtuous cycle” of demand and investment, because it worsens service for other uses of the network.⁴⁶

In contrast, paid or settlement-free interconnection that involves adding capacity through new ports, or content delivery network services that offer a benefit by reducing the total distance of travel, inherently do not degrade other communications that share the same local network and pass through the same routers. Although interconnection, in particular, may involve harmful practices that cut at the heart of protecting the open Internet,⁴⁷ offering a benefit of improved performance through faster interconnection, caching, or content delivery networks represents a very distinct issue from paid prioritization.

Paid prioritization has a distinct degrading effect on other access service traffic, an effect that creates complex incentives for network operators.⁴⁸ It also represents a visceral deviation from the end-to-end, best efforts history of the Internet, meaning that as a practical matter, it’s impossible to understand ex ante the full effects and potential negative externalities that could arise. For these reasons, Mozilla strongly recommends that the Commission prohibit paid prioritization, at minimum by indicating such practices are presumptively unreasonable practices in violation of the nondiscrimination rule.

Such a determination would not prevent network operators from seeking new revenue models, or enabling services that require higher standards for delivery. It would instead require these services to be separated from the access service and structured as specialized services.⁴⁹ So long as such services do not generate congestion or degrade traffic for the access service, they

⁴⁶ Fung, *supra* note 43.

⁴⁷ The FCC has announced that it will be collecting more information on this issue. Statement by FCC Chairman Tom Wheeler on Broadband Consumers and Internet Congestion (rel. June 13, 2014), <http://www.fcc.gov/document/chairman-statement-broadband-consumers-and-internet-congestion>.

⁴⁸ For example, offering paid prioritization may encourage artificial scarcity – underinvesting in total network capacity, or delaying investment, to increase the relative value of priority by making congestion more commonplace.

⁴⁹ 2014 NPRM, para. 60.

would fall outside the scope of the Title II classification proposed in the Mozilla petition, and outside the scope of a rule presumptively barring paid prioritization within access services grounded in that authority.

Much of the rhetoric opposing paid prioritization rules relates to the scope of Title II authority.⁵⁰ The assertion is that, because Title II prohibits “unreasonable discrimination” and that language has in different contexts allowed the FCC to permit differential services, the Commission is somehow required to permit differential treatment for edge providers in this context – presumably, regardless of whether or not the Commission adopts Mozilla’s proposal of articulating the edge provider facing service as separate from end user facing access services. But these red herring arguments misread Title II. The law specifies that unreasonable practices are unlawful, and authorizes the Commission to adopt rules and regulations to define the scope of reasonability.⁵¹ On its face, that language does not address nuanced, complex, inter-related differential services like prioritization. While the statute does not *require* the FCC to prohibit prioritization, it also does not *prohibit* the FCC from doing so. The Commission can, and should, determine that paid prioritization is presumptively prohibited as unreasonable discrimination, under the technical rationale that such practices inherently degrade other uses of the access service.⁵² The Commission would receive *Chevron* deference in that interpretation of the scope of its authority, without conflicting with *Verizon* or other precedents.

D. Mobile access services should be governed by the same rules as fixed.

⁵⁰ See, e.g., Jim Cicconi, “Net Neutrality and Modern Memory,” *AT&T Public Policy Blog* (June 6, 2014), at <http://www.attpublicpolicy.com/fcc/net-neutrality-and-modern-memory/>.

⁵¹ See 47 U.S.C. § 201.

⁵² This is essentially the policy position that the current FCC Chairman has already articulated. See Fung, *supra* note 43 (“Wheeler cited network equipment manufacturers who’ve argued that you can’t create a fast lane without worsening service for some Internet users. ‘That’s at the heart of what you’re talking about here,’ Wheeler said. ‘That would be commercially unreasonable under our proposal.’”).

There is only one Internet. Regardless of whether the access service to reach that Internet is mobile or fixed, Internet users and developers expect it to be open.⁵³ To reach that, the same rules must be applied, and network operators must be prohibited from blocking or discriminating in the last mile.⁵⁴ The Commission should apply the same rules and the same criteria for analysis, relying on reasonable network management where necessary to accommodate distinctions between fixed and mobile networks.⁵⁵ Reasonable network management is grounded in the needs of the network and in maintaining its effective operation. Consequently, the Commission can and should interpret this standard, rather than rules themselves, in a way that reflects challenges or limitations inherent to individual networks, including but not limited to whether the last mile connection uses LTE, GSM, fiber, cable, copper, WiFi, or some other protocol or technology. This flexibility is more than sufficient to accommodate legitimate concerns, while maintaining identical rules and normative standards ensures that developers do not face uncertainty in how, or even whether, mobile customers will be able to access and use their content, applications, and services.

Even with the 2010 order, the Commission indicated that it intended mobile providers to meet the standard set out by fixed providers, even though they were not legally required to.⁵⁶ Without question, that separation of services was made not because of the nascent state of the mobile broadband market, nor because of any inherent technical distinctions or legal ones. Instead, the weaker rules for mobile networks were adopted for political reasons, reflecting an

⁵³ Comments of Mozilla, *In the Matter of Notice of Proposed Rulemaking, Further Inquiry Into Two Under-Developed Issues in the Open Internet Proceeding*, GN Docket No. 09-191, WC Docket No. 07-52.

⁵⁴ See 2014 NPRM, para. 105.

⁵⁵ See *id.* at para. 140.

⁵⁶ *Open Internet Order*, paras. 104-05 (making clear that the Commission does not “implicitly approve of any provider behavior,” that conduct by mobile providers in violation of the fixed rules is not implied to be acceptable, and that the Commission will investigate concerns and may adjust rules in the future).

earlier compromise.⁵⁷ The Commission should avoid making a second mistake of relying on that ephemeral compromise, to the detriment of good policy and law. The Internet must remain open, no matter how connections to it are made.

In addition, since 2010, the market for mobile broadband services has had several more years to evolve.⁵⁸ Today, consumers interchangeably connect tablets and smartphones to mobile access services and to WiFi access points connected to fixed access services, and certainly expect to be able to access the same Internet content, applications and services, without blocking or discrimination. Globally, mobile access services, applications, and devices are key to bringing the next billion people online.

There remain technical distinctions between mobile and fixed networks, some of which – such as management of upload congestion – are inherent in the nature of the technologies.⁵⁹ But these are not the distinctions relied on for differential treatment of mobile services in either the 2010 *Open Internet Order* or the present NPRM,⁶⁰ just as neither the *Order* nor the NPRM proposes treating antiquated DSL connections under different rules from shared access cable networks or gigabit fiberoptic services, despite significant technical differences. Instead of attempts to articulate technical reasons, market distinctions – rapidly disappearing – are cited as cover for the inherent politics behind the scenes.

⁵⁷ E.g. Sarah Kate Kramer, “Explaining the Compromise on Net Neutrality,” WNYC (Dec. 22, 2010), at <http://www.wnyc.org/story/104955-compromise-net-neutrality/> (quoting Professor Tim Wu as saying, “I was in the FCC and I said why don’t we extend this to wireless and they said that’s great, but AT&T would never agree to it. And I said, ‘well, AT&T doesn’t have a vote on this commission!’ And they said, ‘yeah, but they have 60 Congressmen, and they can make your life miserable.’”).

⁵⁸ 2014 NPRM, para. 108.

⁵⁹ Though, mobile services offloading to local microcells circumvent even these differences.

⁶⁰ The 2010 Order makes one reference that comes close to this, stating that “existing mobile networks present operational constraints that fixed broadband networks do not typically encounter,” with a footnote to several comments that appear to talk about a range of issues including the role of devices in mobile network management. *Open Internet Order*, para. 95, n. 295.

Under the Mozilla petition, formal separations between fixed and mobile services become even more difficult to sustain. Both fixed and mobile operators effectively offer a telecommunications service to remote edge providers for routing within their local networks. Both represent a terminating access network with the power to demand payment for delivery or for acceptable quality. And both are essential to preserving the open Internet by protecting user choice and low-cost innovation without permission.

IV. ENFORCEMENT

Mozilla generally supports the spirit of the proposed enforcement framework as described in the NPRM. The first two factors as described work at cross-purposes with each other, to a degree, as it is hard to simultaneously provide certainty and also flexibility to respond to a dynamic ecosystem.⁶¹ However, the balance between these two will largely be established by the rules themselves, rather than the procedures and systems for enforcing the rules. More important than any of the three named factors is the necessity of objectivity in enforcement procedures. Objectivity is easy to support as a principle, and hard to achieve in practice.

To promote a more objective, less captive process, Mozilla encourages the Commission to consider multistakeholder processes as a component of its enforcement procedures.⁶² The current Open Internet Advisory Committee (OIAC) and Broadband Internet Technical Advisory Group (BITAG) are certainly part of this determination, and should be continued. One of these bodies, or another, could be considered to make findings of fact that are then shared with the Commission's Enforcement Bureau or an Administrative Law Judge, where the findings of fact

⁶¹ 2014 NPRM, para. 163.

⁶² See *id.* at para. 175.

might conclude that a practice is or is not unreasonable discrimination, for example, or whether it is or is not reasonable network management.

Mozilla has proposed in Internet Governance contexts a specific, three-phase approach to balance the twin demands of inclusiveness and decisiveness in reaching agreement among different interests in tricky questions of Internet policy.⁶³ First, after a preliminary issue identification phase, a static, inclusive, transparent forum houses broad discussion about a specific issue, such as a technology or market practice by an ISP. Next, a smaller, potentially closed group is formed to come to a decision and make specific recommendations, designed as dynamic to limit capture by specific interests over time. Finally, a stable, inclusive dispute resolution process hears complaints from interests who felt their views were not represented in either the construction or the output of the dynamic decision-making group. Multistakeholder groups could lead all of these phases, with their output endorsed and legitimized, or overruled, by the Commission through the Enforcement Bureau or a vote of the Commissioners. Such complementary pieces of the Commission's process could improve objectivity and streamline expenses of enforcement, if properly designed and implemented.

Respectfully submitted,

*/s/ Chris Riley*_____

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⁶³ See Mozilla Submission on Evolving Internet Governance to NETmundial (Mar. 2014), at <http://content.netmundial.br/contribution/mozilla-submission-on-evolving-internet-governance/205>.