

**Before the
Federal Communications Commission
Washington, DC 20554**

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

REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS

Of Counsel:
Walter E. Dellinger
Irv Gornstein
O'Melveny & Myers LLP
1625 Eye Street, NW
Washington, DC 20006

Michael E. Glover
Edward Shakin
William H. Johnson
VERIZON
1320 North Court House Road
9th Floor
Arlington, Virginia 22201
(703) 351-3060

John T. Scott, III
William D. Wallace
VERIZON WIRELESS
1300 I Street N.W.
Suite 400 West
Washington, DC 20005

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Attachment A – Reply Declaration of Gary S. Becker and Dennis W. Carlton (“Becker/Carlton Reply Decl.”)

Attachment B – Reply Declaration of Michael L. Katz (“Katz Reply Decl.”)

Attachment C – Reply Declaration of Michael D. Topper (“Topper Reply Decl.”)

I. Introduction and Summary

The Internet has thrived because successive Administrations of both parties have resisted the urge to regulate. Instead, the Internet has been governed largely through development of technical standards and best practices by the Internet community itself. This approach has led to an open platform that permits consumers to access the lawful content and applications of their choice, massive investment, and flourishing innovation, all of which has brought unparalleled benefits to consumers and the economy more generally. All parties agree on the need to sustain and promote these attributes, as well as to ensure transparency so that consumers can make informed decisions about what products and services they choose.

In the face of the Internet's unquestioned success without government intervention, the burden is on those who would radically transform the government's policy and impose sweeping new regulations on the Internet. Proponents of the proposed rules have not come close to bearing this burden. Indeed, they offer virtually no evidence at all about the important technical and economic issues at stake. As a consequence, the record contains no empirical data or analysis establishing the existence of any problem that the proposed rules (or any alternative rules) are needed to solve or any other benefit they would bring. To the contrary, the evidence demonstrates that the broadband marketplace is competitive and becoming increasingly so, with no sign of a "market failure" requiring government regulation. And the record contains no facts establishing a pattern of blocking access to websites, anticompetitive discrimination, or any other harmful behavior by broadband Internet access providers. Instead, proponents are left to speculate about possible future harms and hypothetical economic incentives – all of which are thoroughly debunked in the record and which, in any event, would apply equally to other

members of the Internet ecosystem that are in a position to play a gatekeeping role yet go untouched by the proposed regulations.

By contrast, a wide range of commenters – critically including those with the greatest technical and economic expertise and industry experience – show that prescriptive rules like those proposed here would result in significant harms, including reduced investment and innovation, that strike at the heart of the Internet’s success and that run counter to the goals articulated in the *National Broadband Plan*. For example,

- The technologists and Internet experts who have made submissions in this proceeding (including those who have made foundational contributions to the Internet such as David Clark of MIT, Dave Farber of Carnegie Mellon, and Richard Bennett of ITIF) overwhelmingly conclude that the proposed rules are based on incorrect factual assumptions about how the Internet works, including the crucial role that quality of service and differentiated treatment of traffic have long played.
- Leading economists – including a Nobel prize winner and former chief economists at the Commission and the DOJ – explain that the economic hypotheses underlying the proponents’ arguments are wrong and that in fact the proposed rules would undermine investment and innovation in advanced networks.
- Network providers of all stripes – the parties with the greatest experience in deploying and operating networks – likewise explain that the proposed rules would undermine critical network management functions, deter investment, and harm competition.
- Equipment manufacturers and software companies that supply many of the inputs to networks and the Internet likewise oppose the proposed rules, recognizing that they would reduce incentives for innovation and investment.

- Content providers such as the numerous members of the Motion Picture Association of America – the types of providers who are supposed to be the intended beneficiaries of the proposed rule banning business arrangements for enhanced services – explain the importance of having the flexibility to enter into just such business arrangements in order to provide quality content and service to consumers and note that they will benefit if network providers can offer quality of service enhancements or other differentiated services.
- Others, including unions and civil rights groups, express concerns that the proposed rules would, among other things, lead to fewer jobs and less network deployment and adoption, particularly in unserved and underserved areas.
- Indeed, even parties who support some regulation, such as Amazon and the Center for Democracy and Technology, agree that the proposed rules are too broad.

In short, the Commission cannot look at the *facts and data* in the record and come to any conclusion other than that the proposed rules should not be adopted.

Indeed, although the proposed rules could be improved or made worse, *any* prescriptive rules will have harmful consequences. First, any rules will be vague and ambiguous – a problem that will only grow as technology evolves, new security threats emerge, and other changes occur. The resulting regulatory uncertainty will deter investment and innovation. Second, rules inevitably will be overbroad and prohibit practices that are beneficial to consumers. Even the evolution of the debate over net neutrality illustrates this problem, as regulatory proponents have repeatedly advocated sweeping regulation only to reluctantly backtrack in the face of irrefutable showings of the harms that would result. Thus, while proponents originally cast network management as inherently suspect, even they now concede it is necessary and beneficial,

especially in responding to security threats. Likewise, while many have suggested that so-called discrimination is inherently bad and should be categorically prohibited, there is now emerging recognition that discrimination can be beneficial in many cases. These acknowledgements illustrate the tendency toward regulatory overreach and the harm in adopting prescriptive rules that inevitably will bar beneficial practices and lead to other unintended consequences as the Internet evolves in ways no one can foresee. Third, and relatedly, adopting prescriptive rules will lead to regulatory creep as parties looking to further particular regulatory agendas second-guess emerging practices and seek government intervention to micromanage broadband providers' networks and businesses. The result will be an endless stream of proceedings in which such parties seek to extend the Commission's regulatory reach to an ever-growing array of practices.

Even while any prescriptive rules would lead to harm, the specific proposed rules here would exacerbate the injury to consumers:

Wireless: There is no basis to extend the existing wireline principles or newly proposed rules to wireless broadband services. Even proponents of the proposed rules are forced to acknowledge that wireless broadband services present unique considerations that must be taken into account in the rules, but they offer no valid rationale as to why wireless broadband services should be subject to net neutrality rules at all. They should not. First, the record firmly establishes that wireless services are highly competitive, with investment and innovation that is bringing tremendous benefits to consumers. Proponents of regulation are left to claim that the rules need to apply to wireless *because* it is so successful and consumers expect wireless services to function like their wireline counterparts. But, of course, that success was borne of a competitive market free of the heavy-handed regulations these proponents now endorse. It

makes no sense to suggest that the Commission should now penalize the success of wireless services by imposing burdensome regulations on them – particularly when those regulations would undermine that very success by discouraging investment and innovation. Dynamic competition within the wireless industry ensures that wireless providers will meet consumer expectations as they evolve, including their demand for openness – as is already evident in today’s marketplace. Second, even proponents of regulation concede that wireless networks present particular technical and operational constraints that require active network management, though they then urge the Commission to gut the proposed allowance for such management in ways that would lower quality of service and the range of possible innovations available to consumers. And they offer no response to the problems that would result from the uncertainty about what network management practices are and are not permissible and the chilling effect that would have on network engineers. Third, it would make no sense to impose these burdensome rules now just as wireless carriers are beginning to make the massive investments needed to deploy 4G technologies that will provide far greater speeds and produce the long sought after third (fourth, fifth, and sixth) broadband pipe into the home.

Nondiscrimination and Pricing Restrictions: The record confirms that the proposed nondiscrimination rule is unjustified. A growing number of parties, including the DOJ and FTC and even some content and application providers, acknowledge that, as leading economists in this proceeding have explained, many forms of discrimination are affirmatively beneficial for competition and consumers. The proposed rule, however, bans *all* discrimination and thus would cause manifest harm. First, the rule is fundamentally flawed because it is premised on assumptions about how the Internet works that, as the comments by technical experts demonstrate, are incorrect. Regulatory proponents appear to desire a “neutral” Internet in which

all traffic travels over “dumb pipes” and is treated identically on an end-to-end basis. But the Internet has never operated in that fashion. Different forms of Internet traffic have long been treated differently from each other, and pricing models run the gamut from the number of eyeballs attracted to a site to percentage of revenues or other success-based formulas, and from flat rate to usage sensitive arrangements. Such differential treatment and quality of service enhancements are built into the DNA of the Internet and result in many consumer benefits. Second, the proponents’ arguments confirm that the proposed rule, including the prohibition on any charge for various services that network providers might offer to application or content providers, could render illegal many popular services that consumers and application providers choose to purchase today, as well as prohibit the introduction of new ones. Again, distinguished economists, the content community, and others explain why such an outcome makes no sense and would benefit established content and application providers at the expense of consumers and potential upstart competitors. Third, the uncertainties and other harms resulting from the rule will only multiply going forward. As new, latency-sensitive services such as telemedicine and real-time video become more prevalent, the need for enhanced quality of service and other measures beyond simple “best-efforts” transmission will only increase. Further, as more services integrate components from the Internet (*e.g.*, a provider’s “storefront” with selected Internet content), requiring that access be provided to all (and on identical terms) could well preclude the provider from integrating any Internet-delivered content at all, thus inhibiting new services that would increase the choices available to consumers.

Managed Services: Applying any rules to “managed” or “specialized” services would be especially harmful. First, as Verizon explained, the ability to offer differentiated services – and the revenues they generate – is critical to the business case for making the ongoing investments

to deploy broadband to all Americans and for increasing capacity and adding new capabilities where it already has been deployed. Second, the dividing line between Internet access and “managed” or “specialized” services is becoming increasingly blurred as more and more services integrate selected content or features from the Internet. Third, there is no reason to regulate these services or to define a category of permissible services. Rather, as commenters such as Clark, Lehr, and Bauer explain, the Commission should make clear that any provider of a traditional Internet access service that allows consumers to go where they want and access what they want on the public Internet is free to *also* offer customers any additional options it chooses. Proponents of regulation appear to view the offering of such additional options as an emerging threat that requires proactive regulation. But regulation should not be the default option as new services are brought to market, particularly when, as here, it would have a chilling effect on investment and innovation and reduce consumer choice.

Network Management: Rules concerning network management, even ones that permit “reasonable” network management, would undermine the ability of providers to engage in practices needed to serve and protect consumers. First, there can be no doubt that network management plays an essential role in maintaining a well-functioning Internet. Even proponents of the proposed rules pay lip service to this reality, which was graphically demonstrated in the time since the opening comments were filed by the widespread intrusions by Chinese hackers that were exposed by Google and appear to have affected scores of leading companies. Yet, notwithstanding that recognition, proponents of regulation continue to seek to limit “appropriate” network management to a limited class of purposes and methods. Second, the suggestions by some regulatory proponents that increased capacity is a substitute for network management is false, as numerous commenters explain. Third, network management requires maximum

flexibility to dynamically address constant changes in security threats, traffic patterns, and other factors. The proposed rule would undercut that flexibility by creating significant uncertainty about what practices would, after-the-fact, be deemed reasonable. Some regulatory proponents would only make things worse by having the Commission impose a host of additional restrictions and limitations on network management – restrictions that are unjustified and that would harm the ability of network providers to protect consumers and networks and to provide high quality service.

The record also makes clear that the Commission lacks legal authority to impose sweeping rules on broadband Internet access services such as those proposed here. As the D.C. Circuit confirmed in *Comcast v. FCC*, No. 08-1291, 2010 WL 1286658 (D.C. Cir. Apr. 6, 2010), the Commission has “ancillary authority” to act in appropriate circumstances, but only if it can demonstrate that any such action lies within its subject matter jurisdiction, that it is ancillary to a “statutorily mandated responsibilit[y]” expressly delegated to the Commission under a substantive provision of the Act, and that concrete record evidence demonstrates that the rule is necessary for the effective performance of that statutorily mandated responsibility. The Commission has not and cannot meet the legal standard with respect to the broad rules proposed here. Indeed, to the extent the Commission proposes to impose the equivalent of common carriage requirements (or worse), those proposals would be squarely *contrary* to the Act, not ancillary to its provisions. And while the *Comcast* court did not address certain Commission arguments as to provisions that the Commission suggested might provide alternative bases for more targeted action, the Commission did not raise those provisions in its NPRM here, and the ones on which it did propose to rely were invalidated in *Comcast*. At a minimum, therefore, if the Commission decides to move forward based on ancillary authority, to comply with the

requirements of the APA it would first be required to issue a new notice of proposed rulemaking to provide an opportunity for comment on each proposal and on its proposed legal basis. And the Commission ultimately would have to develop concrete evidentiary support for any such proposal – evidence that is utterly lacking in the record here.

This does not mean that the Commission is wholly without authority to act on any matters relating to broadband or Internet-based services. On the contrary, the Commission has direct authority to address a number of issues, such as universal service and spectrum reform, and it has previously exercised its ancillary authority to address others, such as safeguarding customer privacy with respect to IP voice services. But here, the sweeping rules proposed by the Commission would effectively impose legacy common carrier obligations on broadband Internet access services, including a nondiscrimination rule that is far more stringent than even common carrier rules and that would effectively prohibit a wide variety of arrangements with content or applications providers that could benefit consumers.

Even before the decision in *Comcast*, the strongest proponents of the rules had begun to shift ground and advocate that the Commission take the retrograde step of regulating broadband Internet access service as a Title II common carriage service either by “reclassifying” retail broadband services in whole or in part or by requiring providers to “unbundle” the transmission component as a separate common carriage service. But this theory if anything is even more legally untenable, and pursuing it would harm consumers and halt the investment that is critical to continued growth and development of the Internet. As an initial matter, the classification of broadband Internet access was not the subject of the NPRM in this proceeding, and cannot be addressed here. In addition, the Act prohibits imposing Title II common carriage regulation on information services, and, both the Commission and the Supreme Court agree that retail

broadband Internet access service is an integrated information service under the terms of the statute. While the proponents of Title II regulation argue that the facts have somehow changed in the interim to justify a different conclusion today, the opposite is true. The reality is that competition has driven service providers to integrate more and more information service capabilities into their retail offerings to deliver greater value to consumers, including everything from additional Web storage, to multiple e-mail addresses, to added security functions, to parental controls, and more.

The Commission also has no basis to compel network providers to unbundle their services and provide a transport service on a common carriage basis. Nothing in the statute authorizes the Commission to require providers to unbundle their information services and offer parts of such services separately on a common carrier basis. On the contrary, the statute expressly recognizes that information services will be provided “via telecommunications,” and prohibits the Commission from extending Title II regulation to such services. Moreover, even in other contexts where (unlike here) providers were offering pure transmission services to customers, the courts long ago established that the Commission could not compel them to offer those services on a common carriage basis absent the existence of market power akin to the monopoly one-wire world that used to exist for voice telephone service. Such unbundling also would harm consumers – rather than buying what they correctly view as a single integrated service with numerous features, consumers would experience added costs and confusion as they were left to purchase the components of this integrated service separately and cobble together a patchwork of services. Consumers would get less value since providers could no longer compete to introduce added attractive features without a separate charge, and the resulting complexity

would directly undermine the goals of the *National Broadband Plan* such as encouraging increased adoption.

Nor would Title II classification even achieve the purported goals of its proponents. Subjecting the underlying transmission service to archaic common carrier requirements would do nothing to ensure that consumers could continue to access any content, service, or application of their choice. Under that regime, the Internet access service provider – like all other applications and service providers – would remain free to employ capabilities above the transmission level that would restrict access or that would enhance service quality for only some content (e.g., by caching only selected content). Thus, the Commission would still have to invoke ancillary authority to impose obligations on the information service components of the Internet access service and to create requirements stricter than those under Title II. As a result, imposing common carriage requirements on the transport component would amount to nothing more than regulation for regulation's sake.

Moreover, imposing common carriage regulation on broadband services would place a straitjacket on the Internet as everyone in the ecosystem was forced to grapple with the application of outmoded and complex regulations ranging from price regulation to tariffs to unbundling. The inevitable result would be less innovation and investment and harm to competition and consumers. And the absence of Commission authority to impose the sweeping rules proposed here is confirmed by their serious constitutional failings under both the First Amendment and the Takings Clause of the Fifth Amendment.

Finally, even apart from the fact that no rules are warranted, it would be arbitrary and capricious to single out network providers to bear those burdens. As the record makes clear – including again submissions by technologists and Internet experts – the same hypothetical

concerns that proponents cite in an attempt to justify the rules for network providers apply equally to providers throughout the Internet ecosystem, from those such as Google and Akamai that have their own extensive network facilities to application/content providers such as search engines and portals to DNS providers. While the record does not justify additional regulation on anyone, creating regulatory silos and imposing burdens on only some providers in the Internet ecosystem would distort competition and harm consumers.

While the record demonstrates that the proposed rules are unjustified, it also offers a constructive path forward. Virtually all commenters agree that greater transparency would be beneficial, and the Commission can work to encourage the development of best practices and standards for such transparency. A number of commenters, including Verizon and Google in their joint filing, note that the Internet has thrived in part because of its model of self-governance and industry collaboration, guided by expert bodies such as the Internet Engineering Task Force. The Commission can and should encourage technical advisory groups that can provide guidance about the issues raised in this proceeding, help develop best practices and standards, and help to resolve disputes, much like the private dispute resolution process in the advertising context under the auspices of the Better Business Bureau. What it cannot and should not do, however, is to supplant such self-governance with the intrusive proposed rules. The facts and evidence in the record make clear they are not needed to solve any existing problem, and they will cause a wide range of significant harms to the Internet ecosystem and consumers who use and rely on it.

II. The Record Reveals Emerging Agreement on Key Goals for Ensuring the Continued Success of the Internet.

A. The Internet Should Remain an Open Platform That Permits Consumers To Access the Lawful Content and Applications of Their Choice.

Virtually all parties agree that the public Internet should continue to be an open platform over which consumers can access whatever lawful content and applications they choose. As Verizon and Google explained in their joint filing,

this means that when a person accesses the Internet, he or she should be able to connect with any other person that he or she wants to – and that other person should be able to receive his or her message. An open Internet also is one in which no central authority can impose rules that limit or prescribe the services that are being made available, where an entrepreneur with a big idea can launch his or her service online with a potential audience of billions, and where anyone, including network providers, are able to innovate without permission and provide any applications or services of their choosing, either on their own or in collaboration with others.

(Verizon/Google Comments at 2.¹)

A commitment to openness does not imply that regulation is necessary. To the contrary, the Internet is open today in the *absence* of regulations such as those proposed here and because of a longstanding, bipartisan commitment to keep the Internet free of prescriptive regulation. Thus, the burden lies with those who claim that regulation is now needed to maintain the Internet’s openness even though that has not proven necessary up to this point. That is particularly true because, as Verizon has explained, broadband Internet access service providers have strong incentives to continue to ensure that consumers have the access they want without any regulatory obligation. Consumers have made it clear that they value traditional, public Internet access services in which they can choose the content and applications that they access. Competitive pressures ensure that providers will meet this consumer demand: if a provider does

¹ Unless otherwise noted, all references to the “Comments” of a party refer to the comments that the party filed in G.N. Docket No. 09-191 in January 2010.

not, customers will choose another one who does. (*See, e.g.*, Verizon Comments at 33-34; Comcast Comments at 9-10, 19-20; Time Warner Cable Comments at 18.)

It is also important to recognize that the shared goal of maintaining the Internet as an open platform does *not* mean that broadband Internet access providers should be precluded from *also* offering managed, specialized, or other differentiated services that may not provide access to all lawful content and applications on the Internet. As long as a provider offers a traditional Internet access service that allows consumers to go where they want and access what they want on the public Internet, it should also be free to offer more targeted services (*e.g.*, an offering for children that permits access only to child-friendly Internet sites or a service that provides seniors who are uncomfortable with computers access to a more limited amount of content and applications). *See infra* Section IV.D. Doing so in no way undermines the openness of the Internet. To the contrary, openness is desirable because it allows consumers to make choices about what content and applications they want to use – managed and specialized services are entirely consistent with that goal because they provide consumers with even *more* choices to satisfy varying customer preferences.

B. The Commission’s Policies Should Not Create Disincentives To Continued Investment and Innovation in All Parts of the Internet Ecosystem, Including Networks.

Virtually every party agrees – and no one disputes – that continued private investment is critical in all parts of the Internet ecosystem, including networks.² Substantial investment is needed to deploy new network facilities, whether in connection with new networks (*e.g.*, 4G wireless networks), upgrading networks to next-generation technologies such as fiber, or

² *See, e.g.*, Verizon Comments at 40-49; Verizon/Google Comments at 2-3; Comcast Comments at 10-12; CWA Comments at 3-6; Free Press Comments at 12-13; Cisco Comments at 6.

extending networks to unserved and underserved areas. And it is also needed to add capacity, speed, and new capabilities and service offerings to *existing* networks, particularly as broadband services evolve and are put to more uses (*e.g.*, the SmartGrid). (Verizon Comments at 40-41.) Thus, as the Commission recognized in the *National Broadband Plan*, the government must “avoid policies [that] hinder innovation and investment in broadband,” and it should specifically “unleash increased use, private sector investment and innovation” to fulfill national priorities such as enhancing the quality and lowering the cost of health care, improving education, and transforming our use of energy through developments such as the SmartGrid.³

There is no dispute that network providers have made, and continue to make, the kinds of massive investments in their network facilities that will be necessary to fulfill these goals. In recent years, Verizon itself has been investing approximately \$17 billion per year to build, maintain, and protect the health of its networks, and it made more capital expenditures between 2004 and 2008 – over \$80 billion – than any other company in the United States in any industry. (Verizon Comments, Products Decl. ¶ 7.) More generally, broadband providers are estimated to have invested over half a *trillion* dollars on a cumulative basis between 2000-2008, and approximately \$60 billion in each of 2008 and 2009, despite the economic downturn. (USTelecom Comments at 6-7.)

These investments obviously have produced enormous benefits for consumers. They have brought broadband service to consumers who previously were consigned to dial-up services, and increased choices and enabled higher speeds and more advanced capabilities to consumers around the country. They also have enabled broadband access providers, including

³ *Connecting America: The National Broadband Plan* at xiii-xiv, 4 (Mar. 16, 2010), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf> (“*National Broadband Plan*”).

Verizon, to develop various services and products that provide consumers with more choices, such as FiOS TV and associated “Widgets,” storefronts with selected content and applications from third parties, and innovative pricing and business models that can lower subscription fees. (See, e.g., Verizon Comments at 44-48; CTIA Comments at 4-8.)

Moreover, investment and innovation in networks in turn make possible greater innovation by content and application providers. Such investment “make[s] the Internet more useful for consumers and will enable new and innovative applications and services that empower consumers, grow the economy, create jobs, and address a wide range of additional national priorities from energy independence to improved health care. In short, continued private investment is essential to increase the reach and capabilities of advanced intelligent networks, which will in turn support the development of ever more sophisticated applications.”⁴ Put another way, reduced investment and innovation by network providers also would result in reduced innovation and investment by content and application providers both because fewer consumers would have access to broadband service and be potential customers for content and applications and because the networks would have less capacity and capabilities and accordingly would not be able to support as broad a range of applications.

Thus, one of the Commission’s goals in this proceeding – consistent with the *National Broadband Plan* – must be to preserve and promote incentives to make efficient investments in the Internet’s network infrastructure. Although some regulatory proponents argue that the

⁴ Verizon-Google Comments at 2-3; see also Letter of NTIA, GN Docket No. 09-51, at 2 (filed January 4, 2010) (“*NTIA Broadband Letter*”) (“[T]he social and economic fruits of the Internet economy are the result of a virtuous cycle of innovation and growth between that ecosystem and the underlying infrastructure – the infrastructure enabling the development and dissemination of Internet-based services and applications, with the demand and use of those services and applications by consumers and businesses driving improvements in the infrastructure which, in turn, support further innovation in services and applications.”).

proposed rules will not dampen investment incentives (we explain why those arguments are wrong in Section IV, *infra*), there is agreement on two points. First, as a matter of basic economics, the key issue that a network provider (or any other investor) will evaluate in deciding whether to make an investment is the expected return on that investment, given the relevant risks, expected revenues, and similar factors.⁵ It follows that regulations that lower the expected return reduce investment incentives. Thus, for example, to the extent that the proposed rules would restrict or prohibit a network provider from offering managed or specialized services, that would reduce revenues and thus the expected return. Indeed, as Verizon explained in its opening comments, such a reduction would severely undermine the business case for broadband investment because revenues from subscriber fees for traditional Internet access services are not enough, standing alone, to justify the necessary ongoing investment, and providers therefore need to be able to offer additional innovative services to provide further revenue streams.⁶

Second, parties generally recognize that, in addition to express prohibitions or restrictions, regulatory *uncertainty* can chill investment by all members of the Internet ecosystem.⁷ If providers are not sure whether particular services or business plans are permissible under vague or ambiguous regulations, they will be less likely to engage in the investment and innovation that would make them possible. Increasing the financial risk of investments both makes it less likely the investment will be made in the first place and increases costs even when parties do invest – costs that eventually will be borne by consumers in the form

⁵ See, e.g., Katz Reply Decl. ¶ 8; Free Press Comments at 12-13; Cisco Comments at 6; MetroPCS Comments at 31-32.

⁶ See, e.g., Verizon Comments at 43-44; Google Comments at 74-75; Alcatel-Lucent Comments at 20 and attached White Paper at 14-16; Cisco Comments at 6; Comcast Comments at 65.

⁷ See, e.g., Google Comments at 37-42; Clearwire Comments at 8-9; Cox Comments at 16.

of higher prices. Further, dealing with regulatory uncertainty diverts time and resources as engineers and business people must work with lawyers to navigate unclear standards instead of devoting their energies to developing new services and products. Thus, a key metric in evaluating any proposed rules should be whether they introduce regulatory uncertainty that in turn will reduce investment incentives. As discussed below, the proposed rules – indeed, any rules in this area – would do just that because specific, detailed rules would quickly become outmoded and general rules would be inherently vague and ambiguous.

C. The Commission Should Encourage Transparency So That All Players in the Internet Ecosystem Provide Consumers With Material Information That Permits Them To Make Informed Choices.

A further area of consensus is the need for transparency in all parts of the Internet ecosystem that enables consumers to make informed decisions about the products and services available to them and helps create a well-functioning marketplace in which consumer demand drives the evolution of the Internet. In addition to allowing consumers to decide what practices, services, or devices best suit their needs, transparency will allow them to identify practices to which they object and thereby permit policing of anti-competitive or anti-consumer practices through public scrutiny, the possibility of reputational harm, and the risk of governmental sanction.

The need for transparency applies across the Internet, including application and content providers. As Verizon and Google stated, “[p]roviders throughout the Internet space should give users clear and meaningful information concerning Internet services, applications and content to facilitate informed choices. Transparency could also benefit the Internet more generally, as network operators could improve their services as a result of increased visibility into the

demands of new applications, and vice versa.”⁸ Application and content providers should disclose practices that may affect a consumer’s use of the Internet. For example, an application provider should disclose the fact that a particular application “hogs” bandwidth and thus may degrade a consumer’s ability to simultaneously use another service or consume a significant portion of a consumer’s bandwidth allocation. Likewise, a search engine should disclose that it blocks particular types of content or applications – a practice that can clearly implicate a user’s ability to access lawful content and applications of her choice.

Even as commenters largely agree on the need for transparency, there is disagreement on how to achieve that goal. Verizon and other commenters have explained that, consistent with the Internet’s successful history of self-governance (*see* Section II.D *infra*), the Commission should encourage the development of best practices, self-regulatory principles, and similar guidelines to promote the dissemination of meaningful and clear information to consumers.⁹ Such an approach is all the more warranted because broadband access providers, as well as other players in the Internet ecosystem, have strong incentives to make meaningful and truthful disclosures about practices and terms that are important to consumers in order to maintain a reputation for treating customers fairly, which is critical to compete successfully.

Some commenters insist instead that the Commission should mandate a detailed list of disclosure requirements through prescriptive regulation. But their own proposals illustrate the problems with such an approach. For example, the Open Internet Coalition and Public Knowledge assert that network providers should be required to give 30 days prior notice before

⁸ Verizon/Google Comments at 3; *see also* AT&T Comments at 195; Comcast Comments at 46; TWC Comments at 99; NCTA Comments at 44-45.

⁹ *See, e.g.*, Verizon Comments at 49, 132; ITIF Comments at 25; Comcast Comments at 41-50.

adopting new network management practices or changing existing ones.¹⁰ But this just blinks away the reality that network management practices must be adapted and evolve rapidly to deal with changes in security threats, traffic patterns, and other factors. It would make no sense, for example, to say that the various providers that were targets of the recently revealed Chinese hacking scheme should have been prohibited from reacting for thirty days to the extent the response required modification of a network management practice. Moreover, frequent and detailed updates of the sort these commenters envision would have little utility for consumers, many of whom would not understand the technical details and/or would not take the time to review them.

Conversely, the detailed disclosures that some commenters demand *would* be useful for one group – those who wish to evade legitimate network management and security practices. The types of information some commenters demand be disclosed – ranging from “technical details of the methods used” to “exact details of all thresholds . . . that trigger[] any network interference” to “practices undertaken to address the needs of law enforcement, public safety, or national security or homeland security authorities”¹¹ – would be a road map for hackers, criminals, and terrorists. As CDT rightly notes, “highly detailed disclosures . . . would likely provide too much information to those with malicious intent.” (CDT Comments at 34.) Although CDT suggests this might not be true of practices designed to deal with congestion, that is wrong. For example, one common form of network attack is a “denial of service” attack in which the perpetrator tries to overwhelm the resources of a network or server. (Verizon Comments, Network Mgmt Decl. ¶ 13.). Detailed disclosures about how a network provider

¹⁰ See OIC Comments at 90-91; Public Knowledge Comments at 65-66.

¹¹ See, e.g., OIC Comments at 88-89; EFF Comments at 23; Public Knowledge Comments at 65; Free Press Comments at 115 & n.232.

combats network congestion clearly would be of use to someone intending to engage in such an attack. Moreover, they would also enable application providers to design applications to circumvent a network provider's network management practices and "hog" bandwidth, leading to the need for implementation of yet further network management countermeasures.

At bottom, the focus of transparency should be providing to consumers meaningful and useful information that will enable them to make more informed choices among products and services. That is best accomplished through the development of industry best practices and standards, with the backstop of consumer protection laws that already protect against false or misleading disclosures.

D. The Internet Should Continue To Be Governed To the Greatest Extent Possible Through The Development of Technical Standards and Best Practices by the Internet Community, With Government Stepping In Only When Industry Mechanisms Are Inadequate to Deal With Bad Actors on a Case by Case Basis.

The Internet has historically been governed largely through the efforts of the Internet community in the form of technical standards bodies (*e.g.*, the Internet Engineering Task Force) and other self-regulatory measures such as the development of industry best practices. As Verizon and Google explained, "[t]he success of the public Internet has been the direct result of the existing system of self-governance, with collaboration and engagement by parties throughout all parts of the Internet ecosystem and minimal governmental involvement." (Verizon/Google Comments at 4; *see also* CDT Comments at 43-46.) That should continue to be the predominant model going forward. Indeed, that model should be built upon by creating additional technical and industry groups with the requisite technical expertise that can address problems that do arise, develop industry best practices, and provide a forum to help resolve disputes, much as the Better

Business Bureau oversees an alternative dispute resolution mechanism for resolving disputes among competitors concerning their advertising. (*Id.* at 4-6.)

Conversely, governmental involvement should be kept to a minimum, limited to addressing demonstrated harm to users or to competition on a swift and surgical basis based on an ex post finding of specific facts involved in a particular incident where industry mechanisms are unable to resolve the conduct at issue.¹² As Verizon previously explained, existing laws already provide much of that backstop. Federal and state consumer protection, advertising, and contract laws guard against fraud, deception, and similar practices, while antitrust laws are a well-established means of addressing anticompetitive practices. (Verizon Comments at 132-33.) In light of the successful history of Internet self-governance and the availability of these laws to address any problems, there is no demonstrated basis for additional regulation at this time.

III. The Record Contains No Evidence of a Problem That The Proposed Rules Are Needed To Solve.

In the face of the Internet's success under a hands-off regulatory policy, and the extensive record evidence that the proposed rules would introduce tremendous uncertainty and cause significant harm, the record would have to demonstrate a compelling need in order to justify rules of any kind. But the record reveals no such thing. In fact, it confirms the *absence* of any facts or evidence of an existing problem that rules are needed to solve. Proponents of the rules are left to speculate about hypothetical incentives and abilities to engage in anticompetitive

¹² See, e.g., Lynn Stanton, *FCC OSP Chief Offers Peek at 'Themes' of Broadband Plan*, TR Daily (Jan. 29, 2010) (reporting on remarks by Howard Shelanski, deputy director-antitrust for the FTC's Bureau of Economics, observing that "if it is not possible 'to write a rule that distinguishes' between bad discrimination and acceptable discrimination, it might be better to take an ex post facto approach that addresses bad actions after they occur rather than adopting regulations to prevent them from happening in the first place").

behavior. That speculation is not only wrong, but it cannot provide a basis for the intrusive and sweeping regulations proposed in the *NPRM*.

A. The Evidence Demonstrates that the Broadband Marketplace Is Competitive and Becoming Increasingly So.

The record establishes that broadband Internet access services are developing in a competitive manner, with no sign of a “market failure” that might justify regulatory intervention. Despite regulatory proponents’ repeated incantations of “duopoly,” they point to no facts or data that would suggest broadband Internet access providers have market power. To the contrary, the evidence demonstrates that competition is thriving – providers have made massive investments, consumers have benefitted from greater speeds and capabilities, and prices have declined. As the Commission has repeatedly found in a series of orders declining to regulate broadband Internet access services, “competition among providers of broadband service is vigorous” and “greater competition limits the ability of providers to engage in anticompetitive conduct . . . since subscribers would have the option of switching to alternative providers if their access to content were blocked or degraded.”¹³

These are hardly the characteristics of a marketplace dominated by a “cozy duopoly.” Contrary to the assumption of regulatory proponents,¹⁴ a relatively limited number of competitors does not itself demonstrate market power or the absence of competition.

¹³ Memorandum Opinion and Order, *Application for Consent to the Assignment and/or Transfer of Control of Licenses; Adelphia Communications Corp. to Time Warner Cable Inc. and Comcast Corp.*, 21 FCC Rcd 8203, 8296 ¶ 217 (2006); Report and Order and Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd 14853, 14877-78 ¶ 44 (2005) (“*Wireline Broadband Order*”); Declaratory Ruling, *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901 (2007) (“*Wireless Broadband Order*”); Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, 17 FCC Rcd 4798, 4825, 4828-31 ¶¶ 44, 52-55 (2002) (“*Cable Modem Order*”).

¹⁴ See, e.g., Google Comments at 19-20 and App. A at 8-9; Free Press Comments at 50-51.

(Becker/Carlton Reply Decl. ¶¶ 34-35.) As the Department of Justice has explained, “[i]n markets such as this, with differentiated products subject to large economies of scale (relative to the size of the market), the Department does not expect to see a large number of suppliers. Nor do we expect prices to be equated with incremental costs. If they were, suppliers could not earn a normal, risk-adjusted rate of return on their investments in R&D and infrastructure.” Ex Parte Submission of Dept. of Justice, GN Docket No. 09-51, at 7 (filed Jan. 4, 2010) (“*DOJ Broadband Comments*”). The Commission likewise recognized in its *National Broadband Plan* that “[t]he lack of a large number of wireline, facilities-based providers does not necessarily mean competition among broadband providers is inadequate. . . . modern analyses find that markets with a small number of participants can perform competitively.”¹⁵ That is particularly true in a high fixed cost, low marginal cost industry: a broadband provider has strong incentives to win and retain each customer because each customer it loses results in the loss of significant revenues while avoiding only few costs.¹⁶

As described above, and in the record more generally, that is exactly what the actual evidence shows – broadband providers are engaged in fierce competition to retain existing subscribers and gain new ones, and consumers are benefiting from that competition in the form of lower prices and increased capabilities. That competition will only grow, as traditional telephone companies, cable operators, and wireless companies continue to make massive investments in new technologies such as fiber-to-the-premises, DOCSIS 3.0, and 4G wireless services including LTE and WiMax. Indeed, although competition among fixed broadband providers is already strong, wireless carriers’ deployment of 4G services is increasing the

¹⁵ *National Broadband Plan* at 37.

¹⁶ See, e.g., Timothy J. Tardiff, *Changes in Industry Structure and Technological Convergence: Implications for Competition Policy and Regulation in Telecommunications*, 4 Int’l Econ. & Econ. Pol. 109 (2007).

number of competitors and resulting in even greater cross-platform competition that will provide a true third (and fourth, fifth, and sixth) pipe into the home.

1. Wireline broadband providers aggressively compete against one another.

Since the Commission decided to free telephone company broadband services from legacy regulation, traditional telephone companies and cable providers have engaged in fierce competition to retain existing subscribers and gain new ones. By all indicators, competition between these rivals is strong and growing. First, these companies have made massive investments in their networks, with the result that cable modem services are available to 92 percent of all U.S. households and DSL to 83 percent. (Verizon Comments, Topper Decl. ¶¶ 9, 11.) The Commission's recent High-Speed Internet Services Report indicates that, at a minimum, 87.1% of all census tracts have both a cable modem and ADSL provider. (Topper Reply Decl. ¶ 19.) These providers are now pouring investment dollars into upgrading these networks. Verizon is investing more than \$23 billion to pass 19 million premises with its next-generation, all-fiber FiOS network by the end of this year, and has already passed more than 14.5 million of those premises. (Verizon Comments, Topper Decl. ¶ 25.) Other companies such as AT&T and Qwest also are deploying fiber-based broadband services to millions of households. (*See id.* ¶¶ 26-27.) Each of the major cable operators is upgrading its network to DOCSIS 3.0 technology, with most already between two-thirds and 100 percent complete. (*Id.* ¶¶ 30-31.) According to the Commission, wireline broadband providers made about \$48 billion in capital expenditures in 2008 and another \$40 billion in 2009, with broadband-specific investments of at least \$20 billion in 2008 and \$18 billion in 2009.¹⁷

¹⁷ *National Broadband Plan* at 38.

Broadband providers are making these multibillion dollar investments as a result of competitive pressures and the real risk that they will lose subscribers to rivals. Investment by one competitor breeds investment by another. Time Warner, for example, recently acknowledged that it is upgrading to DOCSIS in a targeted way as a direct response to Verizon's deployment of FiOS.¹⁸ As the Commission recognizes in its Broadband Plan, "competition appears to have induced broadband providers to invest in network upgrades."¹⁹

Second, even as consumers have benefited from the higher speeds and greater capabilities of these networks, prices (particularly on a per megabit basis) have been *falling* over time – a result wholly at odds with the "cozy duopoly" caricature drawn by regulatory proponents. (*See* Verizon Comments, Topper Decl. ¶¶ 35-36; Becker/Carlton Reply Decl. ¶ 1.) Third, both telephone and cable companies have been engaged in aggressive marketing campaigns, including discounts and special offers. These advertisements regularly compare the provider's own service to those of competitors both in terms of capabilities and features and price. (*See* Topper Decl. ¶¶ 42-43.) Again, such significant advertising expenditures would make no sense in the absence of a competitive marketplace. Fourth, the vibrant competition is evident from the considerable and rising subscriber churn rates among wireline broadband providers. (*Id.* ¶ 20.) For example, Comcast reports that 65% of its new subscribers are switching from other Internet service providers. (Comcast Comments at 20.) According to one prominent analyst, cable broadband

¹⁸ *TWC - Time Warner Cable, Inc. at Morgan Stanley Technology, Media & Telecom Conference* at 11-12 (Mar. 1, 2010); *see also id.* at 7 ("I would say that there are going to be times where we [Time Warner and Verizon] trade innovative product sets back and forth. Something -- one day I will have something that they don't have and vice versa.").

¹⁹ *National Broadband Plan* at 38.

providers have experienced monthly churn rates of between 2.4 percent and 3.0 percent, equating to annualized churn rates of between 28.8 percent and 36 percent.²⁰

Proponents of the proposed rules offer no facts or data that would begin to support a finding that the marketplace is not actually competitive. Instead, they are left to point to the supposed presence of “only” two competitors as demanding regulatory intervention. But, as discussed above, strong competition can exist in a market with a limited number of competitors. And in any case, this claim ignores the emergence of fixed and mobile wireless broadband services that, particularly with the deployment of 4G networks, provide increasing cross-platform competition. Indeed, it also ignores the possibility of additional wireline broadband competitors – Google, for example, has recently announced that it may build a new high-speed broadband network with speeds that dwarf those generally available today, a plan that, if it comes to fruition, will only further increase broadband competition.²¹

2. Wireless companies have expanded into broadband services with the advent of 3G services, and the deployment of 4G services will bring increased cross-platform competition.

The record unequivocally establishes that wireless broadband services, while still at their nascent stage, are the subject of intense competition. That is evident even from just the number of competitors. The marketplace for wireless broadband service includes a wide range of providers, including the four national carriers, other facilities-based providers such as Clearwire, and numerous regional and smaller carriers. (Topper Decl. ¶¶ 51, 69-72.) In its most recent

²⁰ See Craig Moffett *et al.*, Bernstein Research, *Broadband: Are We Reaching Saturation?*, at 4, Ex. 2 (Aug. 14, 2007).

²¹ See Miguel Helft, *Google Set To Showcase Fast Internet*, N.Y. Times, Feb. 10, 2010; *cf.* Craig Moffett *et al.*, Bernstein Research, *Quick Take – Welcome to the Broadband Business, Google?*, at 1 (Feb. 11, 2010) (“The Google plan is short on details, with no information on capital spending, and, in our view, should primarily be seen through the lens of regulatory posturing.”).

Wireless Competition Report, the Commission found that as of May 2008, 92% of the population had access to at least one mobile provider of 3G wireless broadband service, 72.5% had a choice of 2 or more mobile broadband providers, and 50.7% had a choice of 3 or more mobile broadband providers.²²

Again, competition among wireless broadband services is evident on every dimension. Since 2001, wireless carriers have made an average combined investment of more than \$22.8 billion per year to upgrade their networks to facilitate advanced voice and data offerings. (*Id.* ¶ 64.) The result is that the large majority of the population has a choice among multiple 3G broadband carriers. (*Id.* ¶ 53.) Even as speeds and capabilities have increased, wireless data plans have fallen in price both on an absolute scale and on a per-megabyte basis, and carriers offer a wide variety of price plans. (*Id.* ¶¶ 58-59.) Decreasing prices and increased output belie any claim that the marketplace is not highly competitive. (Becker/Carlton Decl. ¶¶ 27-28.)

Proponents of the proposed rules do not dispute the competitiveness of the wireless marketplace, but instead assert that wireless services do not really compete with wireline services because of lower speeds. But this overlooks the fact that wireless services have the significant advantage of mobility, which can outweigh speed for at least some users. As both the Department of Justice and NTIA have stated, “the fact that some customers are willing to abandon the established wireline providers for a wireless carrier suggests that the two offerings may become part of a broader marketplace.” *DOJ Broadband Comments* at 10; *NTIA Broadband Letter* at 4.

More significantly, this claim ignores the emergence of 4G services, which, at anticipated typical speeds of 5-12 Mbps and peak download speeds as high as 50-60 Mbps, are comparable

²² Thirteenth Report, *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, 24 FCC Rcd 6185, ¶ 146 (2009) (“*Thirteenth Competition Report*”).

to many of the fixed broadband options that consumers use today and sufficient for the average user.²³ As Verizon explained, wireless providers are investing heavily in 4G services and have begun deploying them. In 2008, Verizon Wireless invested over \$9 billion for spectrum in the 700 MHz auction, and it will initiate commercial LTE service with coverage to approximately 100 million people in up to 30 markets during this year, with nationwide build out expected by the end of 2013. (Topper Decl. ¶ 65.) AT&T will be starting LTE trials in this year, with commercial deployment beginning in 2011. (*Id.* ¶ 66.) Sprint has recently brought 4G to 27 markets and plans to bring service to multiple additional markets during this year. (*Id.* ¶ 67; Topper Reply Decl. ¶ 6.) Clearwire has launched 4G service in at least 27 markets with over 34 million people and plans to cover 120 million people in 80 markets by the end of this year. (Topper Decl. ¶ 69; Topper Reply Decl. ¶ 6.) Cable companies such as Comcast and Time Warner have already begun to resell Clearwire’s 4G service in 16 markets. (Topper Decl. ¶¶ 70, 101; Topper Reply Decl. ¶ 6.) Regional providers are also upgrading – MetroPCS, for example, plans to begin deployment of its LTE network in the second half of this year. (Topper Decl. ¶ 71.)

Wireless providers already are advertising their 4G services as wireline replacements. Clearwire, for example, advertises its 4G WiMAX service as “a wireless alternative to DSL or cable internet service,” and one of its officers recently noted that “roughly half the customers come on and use it [Clearwire’s services] as a – overall as a replacement to whatever it is that they were having before, which is a combination usually of DSL or cable broadband.” (Topper Reply Decl. ¶¶ 14,16.) The Department of Justice has stated that “[e]merging fourth generation

²³ Topper Decl. ¶¶ 97-98; Topper Reply Decl. ¶ 13; Marguerite Reardon, *Verizon Expects 4G Launch Next Year*, cnet reviews, Feb. 18, 2009 (“In its initial trials, Verizon says that it has demonstrated peak download speeds of around 50Mbps to 60Mbps.”), available at http://reviews.cnet.com/8301-13970_7-10166622-78.html.

(“4G”) services may well provide an alternative sufficient to lead a significant set of customers to elect a wireless rather than wireline broadband service.” *DOJ Broadband Comments* at 8. As with voice telephony, in which wireless services initially were a complement to wireline services but have now become a common replacement as increasing numbers of consumers “cut the cord,” the rollout of 4G will make wireless broadband a clear competitive alternative to wireline service and force those wireline providers to respond in terms of price, capabilities or other attributes to counter the advantage of mobility.

Some commenters suggest that the competitive potential of 4G services is overstated because Verizon and AT&T will not want their 4G services to cannibalize their wireline business.²⁴ But this supposition is no more true for 4G wireless broadband services than it was for wireless voice services, where Verizon and AT&T compete on a national basis and have affirmatively competed to win wireless customers who have “cut the cord.” The reality is that Verizon (as well as AT&T) has strong incentives to deploy and promote its 4G services in all areas, including where it offers wireline broadband service. Of course Verizon has a clear incentive to convince AT&T’s existing wireline customers to switch to Verizon’s 4G service and vice versa. That, coupled with competition from other 4G providers, alone ensures vigorous cross-platform competition.

But the same is true with respect to customers in Verizon’s wireline region. If Verizon does not vigorously compete for 4G customers in-region, then customers who prefer wireless 4G service (*e.g.*, because of its mobility) will simply switch from Verizon’s wireline service to a rival’s wireless service. (Becker/Carlton Reply Decl. ¶ 41.) Verizon is clearly better off having two different alternatives (wireline and wireless) from which customers can choose (or packages

²⁴ See, *e.g.*, Google Comments at 79; *DOJ Broadband Comments* at 11.

offering combinations of these alternatives), since that will increase the chance that it will retain (or gain) a customer's business. This reality is evident from the fact that Verizon Wireless deployed 3G services more rapidly in regions where it offered wireline service than those in which it did not, and its 4G trials likewise have been in markets where it offers wireline service. (*Id.* ¶¶ 42-46.) If, as regulatory proponents speculate, Verizon were motivated by a fear of cannibalizing its wireline business, then Verizon would be taking exactly the opposite course.

Ultimately, no facts suggest that the structure of the market or state of competition demonstrate a market failure that would require regulatory intervention. To the contrary, the evidence demonstrates that the broadband marketplace is highly competitive and becoming increasingly so. As a result, broadband providers could not engage in anti-competitive activities harmful to consumers without suffering losses of customers and revenues in the marketplace.

B. Proponents of New Regulation Continue To Be Unable To Identify Any Empirical Evidence of An Actual Problem.

Despite the hundreds of comments filed in this proceeding, proponents of new rules still have not pointed to *any evidence* of an actual problem involving a pattern of blocking or degrading access to lawful content that needs to be addressed, let alone any systemic problem resulting in harm to competition or to consumers. As the Information Technology and Innovation Foundation puts it, “we’re unaware of any *current* behavior in the Internet marketplace that would demand immediate Commission action.” (ITIF Comments at 10 (emphasis in original).) The only isolated example raising net neutrality issues that proponents cite – *Comcast* – was quickly addressed even in the absence of the proposed regulations, and the second example to which they point – *Madison River* – was at its core a pricing dispute

concerning intercarrier compensation that was in any case also quickly resolved.²⁵ That is hardly the sort of evidence that would justify the sweeping rules proposed in the *NPRM*. Moreover, the record does not contain even a *single* example of a problem in the context of wireless broadband services or managed or specialized services or that relates to the proposed nondiscrimination rule. Indeed, the momentum in the marketplace, particularly with respect to wireless services, is toward increased openness. *See infra* Section IV.B. Simply put, a data-driven process leads inexorably to the conclusion that the proposed rules are not necessary to solve any existing problem in the broadband marketplace.

C. The Hypothetical Incentives and Abilities of Broadband Providers that Proponents Posit Do Not Exist.

In the absence of any factual evidence of a market failure or an existing problem requiring regulatory intervention, proponents of the proposed rules hypothesize about incentives broadband providers might have at some point in the future to engage in conduct harmful to consumers. But they ignore the overriding incentive broadband providers have in the competitive marketplace – to meet the needs and demands of consumers so that providers do not lose customers and revenues. And it is clear – indeed, it is a premise of the proposed rules themselves – that consumers value traditional, public Internet access services in which they can access whatever lawful content and applications that they choose.

²⁵ Regulatory proponents also have pointed to the recently disclosed notice of settlement of a lawsuit involving allegations against the cable provider RCN similar to those at issue in the Comcast proceeding. *See, e.g.*, Mehan Jayasuriya, Public Knowledge, *RCN Settlement Demonstrates the Perils of ISP Self-Regulation* (Apr. 20, 2010), available at <http://www.publicknowledge.org/blog>. But RCN denies the allegations, and no factfinder has adjudicated their merits. And, in any case, the lawsuit and settlement demonstrate the availability of mechanisms other than sweeping prescriptive rules to address any concerns that may arise.

The combination of a competitive marketplace and consumer desire for traditional public Internet access services provides strong incentives for broadband providers not to use pricing, network management, or discrimination in a way harmful to consumers, lest they lose customers to rivals providing unrestricted access to content and applications. (Verizon Comments at 33-34; Becker/Carlton Decl. ¶¶ 25, 35, 41; Topper Decl. ¶¶ 131, 134, 143; ITIF Comments at 15-16.) Although revenues from traditional Internet access services are not sufficient standing alone to finance the investments needed to maintain and expand providers' networks, particularly at the level necessary to meet the goals set forth in the *National Broadband Plan*, those revenues are a vital piece of justifying such investments. Thus, the absence of any real-world evidence of a problem is not mere happenstance – it is a direct result of the incentives broadband access providers have to meet customers' demands, including the demand for an open Internet service that gives them access to all lawful content and applications.

Proponents of the proposed rules nevertheless hypothesize other incentives that they speculate might lead broadband access providers to engage in conduct harmful to consumers. Free Press, for example, posits that broadband access providers' true incentive for discrimination is to prioritize and protect their own content and services such as voice and video.²⁶ But, as the Commission itself has recognized, competition in the broadband marketplace prevents a broadband provider from anticompetitively favoring its own affiliated content or services (or sabotaging those of its competitors) because doing so would lead consumers to leave the provider's service altogether.²⁷ Moreover, even apart from competitive constraints, discrimination by broadband access providers that limited access to (or degraded) content or

²⁶ See Free Press Comments at 22-23; see also Google Comments at 27-32; Public Knowledge Comments at 48.

²⁷ See Topper Decl. ¶ 146; Katz Decl ¶ 22; Memorandum Opinion & Order, *AT&T and BellSouth Corp.*, 22 FCC Rcd 5662, 5724-27 ¶¶ 116-18 (2007).

services would devalue the platform and reduce how much consumers would be willing to pay for broadband Internet access – as a result, even a monopolist generally would not earn any additional profits through such discrimination.²⁸ Ironically, the proposed rules actually would make it more *difficult* for a video provider to compete with a managed video offering like Verizon’s FiOS TV. In order to provide quality of service that is comparable to such offerings of broadband access providers, a video service provider could not rely on generic, best-efforts Internet transport – it would need some form of enhanced quality of service. (*See* ITIF Comments at 18.) Yet, the proposed rules would effectively ban such an arrangement by prohibiting any charges for it.

Free Press and others next assert that, whatever the state of competition in the broadband marketplace generally, a broadband provider has a “terminating access monopoly” with respect to each of its customers.²⁹ But that concept has no application in this context. In voice telephony, the terminating carrier could charge a fee for terminating traffic that long distance carriers had no choice but to pay and that, due to regulatory rules, end users never experienced either directly or through higher charges from the long distance carrier. As a result, competitive constraints were irrelevant. (Topper Decl. ¶¶ 148-50.) But the broadband marketplace is different because the end user would feel the effects of the broadband provider’s practices. If, for example, a provider charged an inefficiently high price to a content or application provider (*e.g.*, for enhanced service) the content/application provider would not be barred from passing on

²⁸ Becker/Carlton Decl. ¶ 10; AT&T Comments at 120-21; ITIF Comment at 16 (“[T]he economic analysis [of regulatory proponents] omits the cost and value of customer acquisition for ISPs and the dynamics of customer satisfaction. . . . [T]here is always at least one alternative to the local telephone or cable provider, non-participation. . . . Reducing the scope of available content and services certainly isn’t going to motivate this potential pool of new customers suddenly to go on-line.”).

²⁹ *See, e.g.*, Free Press Comments at 30-34.

that charge to the end user – who in turn could switch to an alternate Internet access provider that did not impose such a charge.

Finally, several commenters suggest that regulation is necessary because broadband Internet access is a “general purpose technology” subject to network effects that generates “spillover effects” and externalities.³⁰ Thus, for example, a consumer’s private willingness to pay for Internet access may be less than the social value that the consumer’s connection provides. But the presence of such externalities does not provide a justification for the proposed rules. As an initial matter, many goods and services produce substantial externalities without triggering the need for intrusive regulation or subsidies. (Becker/Carlton Reply Decl. ¶ 13.) Further, this argument fails to account for countervailing externalities and “spillover effects” that would offset those they identify. For example, the flexibility to utilize two-sided pricing and other pricing and business models could lead an Internet access provider to offer lower subscriber fees and thereby increase adoption rates – a result that would have substantial positive externalities and spillover effects. (Becker/Carlton Reply Decl. ¶¶ 10-11; Katz Reply Decl. ¶ 43.) Likewise, the flexibility to provide quality of service enhancements to application and content providers would make possible new services that would not be possible without assurance of higher quality, which also would attract more subscribers to the network. Moreover, investments by broadband Internet access providers also generate positive external effects: for example, content and application providers benefit when network providers extend their networks to offer more consumers access to broadband service and increase the speeds and other capabilities of their networks, which makes possible a broader range of applications.

³⁰ See, e.g., Google Comments at 15-18 & Apps. A and B; Public Knowledge Comments at 22.

(Becker/Carlton Reply Decl. ¶¶ 10-11.) Yet, as discussed below, the proposed regulations would chill investment and thereby reduce these positive spillover effects.

D. In Any Case, There Is No Basis To Single Out Broadband Internet Access Providers for Sweeping Regulation.

If the Commission decides to move forward with rules notwithstanding the absence of any evidence of a problem, it cannot ignore that other members of the Internet ecosystem would have the same theoretical abilities and incentives to engage in anticompetitive behavior as broadband Internet access providers. As one of the Internet’s founders notes, “the obligation to avoid behaviors that might threaten the health, openness, or competitiveness of the Internet should include all the key stakeholders, and [should] not [be] limited to the ISPs.” (Clark, Lehr & Bauer Comments at 7; *see also* AT&T Comments, Farber & Faulhaber Decl. at 5-6.) The current deputy director of antitrust for the FTC’s Bureau of Economics similarly observed that “the idea of Internet discrimination cannot be limited to network operators,” because “if you do, you’ll be back revisiting it when tollbooths develop elsewhere.”³¹ Although no regulation is warranted at all, if the Commission does promulgate new rules, all parties should be required to abide by the same rules, especially given the converging roles among members of the Internet ecosystem.

A variety of established members of the Internet ecosystem such as Google, Akamai, and Level 3 have their own extensive network facilities that are used to deliver their own or others’ content and applications over the Internet. Each of them is in a position to prioritize or discriminate against selected traffic. For example, Level 3 and other backbone providers could, if they chose, enter into business arrangements under which they would prioritize content from

³¹ Stanton, *supra* n. 12.

providers that paid them an extra fee or degrade traffic from a competing backbone provider. Level 3 protests that there is no evidence it or other backbone providers have engaged in such behavior (Level 3 Comments at 5) – but, as discussed above, the same is true of broadband Internet access providers. Akamai and other content delivery networks offer various services for a fee to content and application providers (*e.g.*, caching) that enable their content to be delivered faster and more efficiently. (Akamai Comments at 15.) It would make no sense – and would inhibit competition – to leave such services free of regulation, while restricting or prohibiting comparable services offered by broadband Internet access providers.

Application providers also have the ability to play a gatekeeping role in some contexts. Although Google suggests that “the physical layer provider is uniquely positioned to impede, hinder or deter consumer access to other applications providers” (Google Comments at 25), that is manifestly not true. For example, in its capacity as a search engine, Google can impede and hinder consumer access to other application and content providers by, for example, refusing to list a provider in its search results or pushing it further down the results, and the record suggests it has done just that. (Verizon Comments at 38; AT&T Comments at 197-205; Comcast Comments at 33-36.) Conversely, search providers can and do prioritize listings for their own services or for those who pay for beneficial placement. (Verizon Comments at 38.)

Similarly, numerous others can promote or discriminate against particular content and applications, ranging from Internet portals that feature particular sites on their home pages to a company like Microsoft, which can use its Windows operating system and Internet Explorer browser to engage in various forms of behavior that harms consumers.

All of these actors have the same hypothetical incentives and abilities to prefer or prioritize their own content or services or to disfavor those of competitors. As with broadband

Internet access providers, competitive constraints, transparency, and other factors may well serve to stop them from acting on these hypothetical incentives in a way that harms consumers. But if those hypotheses are enough to justify imposing the proposed rules on broadband access providers, they also should be sufficient to impose the same rules on all other providers. There is no justification for treating one class of competitors differently from everyone else, particularly in an environment in which the distinctions between “network providers” and “edge players” are rapidly eroding.

IV. The Record Demonstrates That Rules Such As Those Proposed Here Would Affirmatively Harm Consumers’ Interests.

Even while the proposed rules – or any other prescriptive rules – are unnecessary to solve any existing problem and thus would create little, if any, benefit, a wide range of commenters recognize that they inevitably would have significant costs in the form of decreased investment and innovation leading to less capable and lower capacity networks, reduced competition, and lower rates of broadband adoption. Thus, the facts and evidence in the record demonstrate that the Commission cannot justifiably adopt any rules like those proposed here.

A. Any Prescriptive Rules Would Have Harmful Consequences.

Although the proposed rules certainly could be changed for the better or worse, the reality is that *any* prescriptive rules here would have unintended consequences that harm the economy and consumers. That is evident from the evolution of the net neutrality debate, as proponents of regulation have proposed far-reaching regulations only to change course as it became evident that a particular proposal would harm competition and consumers. For example, while proponents originally sought strict constraints on network management, they have begun to recognize its necessity, particularly in responding to security threats. Similarly, calls for a

categorical prohibition on discrimination have given way to a broader recognition that discrimination can be beneficial and is characteristic of many competitive markets. This progression, welcome as it may be, demonstrates that any prescriptive rules will have unintended consequences and harms, particularly as the Internet evolves in unanticipated ways. Indeed, such rules will have at least three characteristics that make such a result inevitable.

First, any rules the Commission adopts will be vague and ambiguous. A rule permitting “reasonable” network management, for example, would not clearly delineate what practices were and were not permissible in many cases and would leave providers in the position of having to predict what the Commission would decide with the benefit of hindsight. Other examples of ambiguities in the proposed rules abound. (*See, e.g.*, Verizon Comments at 51-54; CDT Comments at 24-27.) Even the Commission acknowledges that its approach would not provide definitive guidance, but instead would depend on case-by-case adjudication. But in the dynamic environment of the Internet, where providers constantly face new threats, changing usage patterns, and emerging technologies, prior decisions are likely to become outmoded quickly and provide little help in evaluating future cases.

Second, any rules will miss their target by sweeping too broadly and prohibiting practices that are beneficial to consumers. And that overbreadth will only grow over time, as the rules inadvertently restrict practices, business models, and innovations that are not even envisioned today. The overbreadth is clear in the case of discrimination. Although everyone from economists in this proceeding to the DOJ and FTC to even the Commission itself recognizes that discrimination can benefit consumers and is characteristic of a well-functioning market (*see infra* Section IV.C), the proposed rule would prohibit *all* discrimination and restrict a variety of pricing and business models that could provide consumers more choices. Similarly, any rule that

attempted to define permissible managed or specialized services could not anticipate how the Internet will evolve and inevitably would restrict an increasing number of services that would benefit consumers (*see infra* Section IV.D).

At the same time, at least as currently formulated, rules will miss the mark by being too narrow, permitting all manner of “non-neutral” practices by all Internet gatekeepers other than broadband Internet access providers. Selectively adopting rules that apply to some competitors but not others would protect some classes of competitors at the expense of artificially distorting competition and thereby harming consumers.

Third, adoption of any rules will lead to “regulatory creep” as proponents of regulation – including parties interested in furthering their own business interests or other agendas – point to other practices that they deem illegitimate or as undermining the existing rules. Indeed, signs of that creep already are evident in the comments filed to date. For example, some groups suggest that the Commission should regulate how a network provider allocates capacity, including highly technical practices such as dynamic sharing of capacity among services. (*See, e.g.*, Public Knowledge Comments at 34; CDT Comments at 48-49.) Given the complexity and continuing evolution of the Internet, the Commission could not possibly write rules that anticipate all potential scenarios that proponents would want regulated. Thus, adoption of rules would only be the start of a long stream of petitions for rulemaking, declaratory rulings, and the like seeking to extend the Commission’s regulatory reach to an ever-expanding array of practices.

The effect of this regulatory uncertainty, overbreadth and underbreadth, and steady regulatory creep will be less investment and innovation – thereby undercutting the key goals laid out in the *National Broadband Plan*. As the Commission recognized there, the growth of

broadband depends on encouraging “more private innovation and investment.”³² Since the time the Commission confirmed that broadband services were not subject to common carriage regulation, broadband investment and deployment – and the associated economic growth and creation of jobs – has skyrocketed. In recent years, the private sector has invested more in broadband infrastructure – nearly \$60 billion annually and hundreds of billions over the last ten years – than the federal government has invested in all forms of transportation.³³ As noted above, Verizon itself has invested more in capital expenditures over the last several years – more than \$80 billion from 2004 through 2008 – than any other company in the United States in any industry. While private investment throughout the economy dropped by 6 percent between mid-2006 and mid-2008, investment in communications equipment grew by nearly 10 percent over that same time period. *Id.* The Chair of the President’s Council of Economic Advisers, Christina D. Romer, has noted the centrality of private “[n]onhousing business investment,” both to help pull the economy out of recession in the short term and to provide a stable basis for economic growth going forward.³⁴

Investment in broadband creates and preserves jobs, both directly and through the ripple effect it has on the local communities where it is offered.³⁵ For example, one study found that

³² *National Broadband Plan* at 5.

³³ Jeffrey Eisenach, Empiris LLC, *The Telecom Sector and the Economy: How U.S. Broadband Policies Are Working for America* (rev. May 2009), available at <http://www.empiris.com/index.php> (follow “Current Events” to “October 17, 2008”).

³⁴ “Growth Without Bubbles, A Conversation with Christina Romer,” Council on Foreign Relations, at 7-12 (May 12, 2009), available at http://www.cfr.org/publication/19393/prepared_remarks.html.

³⁵ See Robert Crandall, Robert Litan, & William Lehr, The Brookings Institute: Issues in Economic Policy, *The Effects of Broadband Deployment on Output and Employment: A Cross-sectional Analysis of U.S. Data*, at 2 (July 2007), available at http://www.brookings.edu/papers/2007/06labor_crandall.aspx; see also Robert D. Atkinson, Daniel Castro & Stephen J. Ezell, Information Technology & Innovation Foundation Policy Issues Report, *The Digital Road to*

“employment in both manufacturing and service industries (especially finance, education and health care) is positively related to broadband penetration.”³⁶ It indicates that each \$10 billion increase in broadband infrastructure investment produces nearly *500,000 new jobs* (including over 260,000 jobs in small businesses), and that, for every one-percentage point increase in broadband penetration in a state, employment increases by 0.2 to 0.3 of a percentage point per year (or about 293,000 jobs nationally). *Id.* A more recent study concluded that an average of 434,000 jobs were created each year from 2003 to 2009 due to broadband investment, and that expected investments in broadband deployment “will result in an average of more than a half-million U.S. jobs sustained from 2010 to 2015 relative to a world without such investments.”³⁷ Moreover, according to another recent study, network companies are likely to create almost twice as many jobs as non-network Internet companies for every incremental \$1 billion in revenue.³⁸

The regulatory uncertainty, overbreadth, and regulatory creep resulting from adoption of new rules would reduce the ability and incentives for network providers to take risks and make the investments leading to such economic growth and job creation. As the Department of Justice noted, regulation – and in particular price regulation – can “stifl[e] the infrastructure investments

Recovery: A Stimulus Plan to Create Jobs, Boost Productivity and Revitalize America (Jan. 7, 2009), <http://www.itif.org/index.php?id=212>; Stephen B. Pociask, TeleNomic Research, LLC, *Building a Nationwide Broadband Network: Speeding Job Growth* (Feb. 25, 2002), available at <http://www.newmillenniumresearch.org/archive/jobspaper.pdf>.

³⁶ Crandall, *et al.*, *supra* n. 35, at 2.

³⁷ Robert J. Crandall & Hal J. Singer, *The Economic Impact of Broadband Investment* at 26, 42 (2010), available at <http://www.broadbandforamerica.com/blog/broadband-america-study-shows-importance-investment>.

³⁸ Larry F. Darby, Joseph P. Fuhr, Jr., & Stephen B. Pociask, American Consumer Institute, *The Internet Ecosystem: Employment Impacts of National Broadband Policy*, at 23 (Jan. 28, 2010), available at <http://www.theamericanconsumer.org/wp-content/uploads/2010/01/aci-jobs-study-final2.pdf>; see also CWA Comments at 6-8 (“[B]roadband network providers create and maintain far more, and typically better-paying, jobs than the applications and content sectors.”).

needed to expand broadband access.”³⁹ Economic literature is replete with findings that inappropriate regulation can adversely affect consumer welfare by harming innovation and delaying the expansion of output. For example, one study concluded that delays in the introduction of voice messaging services due to line-of-business restrictions and delays in the introduction of cellular telephone service each imposed multi-billion dollar losses in consumer welfare.⁴⁰ Applying the proposed rules or Title II regulation to broadband Internet access would likewise inflict large welfare losses on consumers. In fact, studies have demonstrated that just the unbundling mandates of Title II alone (which some parties have urged be extended to broadband) would significantly reduce investment.⁴¹

Although, as discussed above, all parties agree that the Commission should not create disincentives to broadband investment, a few parties suggest that adopting the proposed rules

³⁹ *DOJ Broadband Comments* at 28; see also Robert J. Shapiro, “Broadband and American Jobs” (Mar. 4, 2010), available at <http://ndn.org/blog/2010/03/broadband-and-american-jobs> (“[T]he central element for job creation here are the investments required to ensure universal access — not only now, but also as broadband technologies continue to advance. The FCC should promote these investments in every way it can. At a minimum, the Commission should be extremely cautious about policy changes which could weaken the incentives for those investments — *i.e.*, reduce their returns — or raise the price for people to access broadband.”).

⁴⁰ See Jerry Hausman, *Valuing the Effect of Regulation on New Services in Telecommunications*, in *Brookings Papers on Economic Activity, Microeconomics* (Martha V. Gottron & Anne Lesser, eds. 1997).

⁴¹ See, e.g., Thomas W. Hazlett & Anil Caliskan, *Natural Experiments in U.S. Broadband Regulation*, 7 *Review of Network Economics* 460, 477 (Dec. 2008) (finding that investment incentives were highly sensitive to changes in unbundling policy, even in the short run, and that the rapid growth of DSL service following the repeal of an unbundling mandate “presents a strong case for protecting such growth dynamics in public policy”); Scott Wallsten & Stephanie Hausladen, *Net Neutrality, Unbundling, and Their Effects on International Investment in Next-Generation Networks*, 8 *Review of Network Economics* 90, 102 (Mar. 2009) (after analyzing the effects of unbundling policies on fiber deployment in 27 European countries, concluding that, “countries with more broadband connections per capita provided through [unbundling] have fewer fiber connections . . . per capita provided by the incumbents and entrants. Conversely, in countries where entrants provide broadband over their own DSL or cable infrastructure, incumbents provide more fiber.”); Katz Reply Decl. ¶¶ 18-19.

would not have such an effect. Free Press, for example, suggests that AT&T's investment pattern after agreeing to certain open access commitments in connection with its merger with SBC demonstrates that the proposed rules would not harm investment incentives. (Free Press Comments at 23-26.) But this claim makes no sense. First, the commitments were temporary in nature and thus would have had little or no effect on long term investment decisions. (Katz Reply Decl. ¶ 9; Becker/Carlton Reply Decl. ¶ 28.) That is all the more true given that the restrictions applied to AT&T alone, and it thus had to make investments in anticipation of competing with others who were not constrained in this way. Second, the commitments were far less draconian than the rules proposed here – among other things, they did not apply to wireless or managed or specialized services and did not include the far-reaching nondiscrimination rule. Third, even if AT&T's investments increased during the time, that shows nothing about the investment effects of the voluntary commitments – to make such a showing, Free Press would have to compare the investments AT&T made against those it would have made had those commitments not been in effect. The absence of any such analysis is yet another “fundamental flaw” in Free Press's claim. (Katz Reply Decl. ¶ 9.) Free Press's suggestion (at 27-28) that the unbundling and other regulations imposed by the 1996 Act caused ILECs to increase their investment is laughable. Among other things, it fails to account for the fact that the 1996 Act also provided a path for ILECs to enter into new lines of business such as long distance service and ignores entirely the competing factors that would have increased investment incentives, including the explosive growth of the Internet. (Becker/Carlton Reply Decl. ¶ 31.)

Likewise, the claim that network providers would have incentives not to invest in their network absent the proposed rules because the presence of congestion would allow them to charge more for priority access flies in the face of reality. (Google Comments, App. A at 12-13.)

No regulatory obstacle exists today that would block network providers from adopting such a strategy, yet they have done exactly the opposite of what this theory hypothesizes – they are investing tens of billions of dollars to increase capacity so as to avoid congestion and increase speeds. The reason for that is clear – congestion degrades the quality of service, which would reduce the amount users would be willing to pay for a provider’s service and increase the number of users who left for a competing service. (Becker/Carlton Reply Decl. ¶ 18.)

B. The Record Provides No Factual Basis for Extending New Rules To Wireless Broadband Services.

The facts and evidence in the record lead to only one conclusion with respect to whether new rules such as those proposed here should apply to wireless broadband services: they should not. By every measure, the wireless broadband market is wildly successful. Consumers increasingly have more choices, with greater speeds and capabilities, at lower prices. And trends in the marketplace promise even greater consumer benefits, as network providers invest billions in the deployment of 4G wireless networks and expand initiatives that will offer consumers greater openness and more choices for devices and applications. The record demonstrates that these positive developments arise directly from the Commission’s long-standing policies of promoting competition, investment, and innovation in the wireless industry without regulatory obligations of the kind proposed here. Conversely, proponents of new wireless regulation cannot point to a *single* example of an action taken by a wireless broadband Internet access provider that could justify application of the proposed rules to wireless network providers. In these circumstances, it would be the height of folly – and wholly unsupported by any evidence in the record – to lay the heavy hand of regulation on the wireless marketplace.

Today’s Fiercely Competitive Wireless Market Benefits Consumers, Including Fostering Openness, without Regulation. As the Commission has repeatedly found and no commenter

disputes, the wireless broadband marketplace is intensely competitive, with consumers benefiting from increased facilities and coverage, innovative devices and service plans, and falling prices. Virtually all consumers can choose among multiple wireless broadband providers, who compete for their business through lower prices and differentiated pricing plans, innovative handsets, applications, and features, and network quality and coverage. The result has been an explosion of consumer choices. As CTIA reports, consumers can choose from among over 630 devices from 33 different manufacturers, including an array of smartphones such as the Droid, iPhone, Palm Pre, and NexusOne.⁴² Consumers have access to over 170,000 applications provided by a wide range of third parties from large, established companies to individual hobbyists.⁴³ And they can choose among a wide range of service models – from open devices, such as the Android-based Nexus One, that provide access to all lawful content and applications in an unmediated marketplace, to more managed options such as the iPhone with Apple-prescreened applications, to more limited devices such as the Amazon Kindle that provide access to particular types of content. All signs point to this competition and choice increasing as wireless broadband providers embark on massive investments in 4G networks, which will bring greater speeds and capabilities.

Proponents of regulation do not deny this reality, because they cannot, but instead assert that the proposed rules should apply to wireless *because* the industry has been so successful. According to these commenters, rules should apply to wireless broadband because “[i]ncreasing reliance on wireless services is extending rapidly to broadband Internet access” and consumers will expect the same rules to apply to wireless broadband as they “become more popular.”

⁴² Ex Parte Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA, to Marlene Dortch, Secretary, FCC, GN Docket No. 09-191, WC Docket No. 07-52, at 2 (Feb. 5, 2010) (“*CTIA Ex Parte*”).

⁴³ *Id.*

(Google Comments at 77-78; OIC Comments at 36.) Such claims pervert any rationale for regulation. The success and popularity of wireless broadband services are borne of a competitive market free of heavy-handed regulation such as the proposed rules. It makes no sense to suggest that the Commission should now reverse that successful policy and impose burdensome regulations that will endanger the very success of wireless broadband by reducing incentives to invest and innovate and forcing homogenization in the wireless broadband marketplace.

Moreover, the suggestion that the proposed rules are necessary to ensure that wireless broadband services meet consumers' expectations is absurd. As the record evidence decisively demonstrates, market forces today already are ensuring that wireless broadband providers meet consumer expectations – those that do not will quickly lose customers to those who do. That is why the marketplace today is characterized by extraordinary levels of investment and innovation. Network providers have invested, and are continuing to invest, billions of dollars in their networks. Earning a reasonable rate of return on those investments requires attracting and retaining as many customers as possible, which in turn means offering attractive options and capabilities designed to best meet consumer demand. Those incentives have served consumers well thus far, and there is no evidence in the record that suggests any reason that might change.

To the contrary, it is clear that continued reliance on market forces will *better* meet consumer expectations than a regulatory model, which will lock in place a particular vision of how wireless broadband services “should” work. As noted above, consumers today have a wide range of choices, including the open, unmediated models desired by regulatory proponents, but *also* various forms of more managed or limited models, including for example the recently introduced Apple iPad. The popularity of those latter models demonstrates that, contrary to the assumption of regulatory proponents, consumer demands are not uniform, and many consumers

prefer alternatives to the “ideal” model of regulatory proponents.⁴⁴ Consumer welfare will not be served by limiting consumer choices and eliminating services that have achieved demonstrable success in the market, precisely because they meet consumer demand. (Katz Reply Decl. ¶¶ 46-49.) Yet that is what the proposed rules threaten. As Verizon and other commenters noted, the proposed rules call into question practices such as featuring applications on the “home page” of a device or service, the ability of wireless broadband providers to offer a device aimed at a particular audience with more limited access to content and applications, and even application stores in which application providers share revenues with wireless network providers. (Verizon Comments at 60-61; AT&T Comments at 148-55.)

Further, imposing a regulatory straitjacket on wireless providers that prevents them from offering multiple choices and trying new models will make them *less* responsive to consumer needs and desires over time. The history of the Internet demonstrates that consumer preferences evolve – in the 1990s, for example, the most popular form of Internet access was the “walled garden” typified by services such as America Online, not the open, “go anywhere” model advocated by regulatory proponents today. It makes no sense to lock in one vision of how wireless broadband Internet access should work and foreclose the ability of wireless broadband services to evolve in tandem with changes in consumer preferences.

In any case, even when viewed strictly through the lens of “openness,” the wireless marketplace is clearly meeting consumer demands. Like other wireless providers,⁴⁵ Verizon offers developers the opportunity to design devices for operation on the Verizon Wireless

⁴⁴ See Steven Johnson, *Rethinking a Gospel of the Web*, N.Y. Times, Apr. 9, 2010 (“by just about any measure, the iPhone software platform has been, out of the gate, the most innovative in the history of computing” even while it is “among the most carefully policed software platforms in history”).

⁴⁵ See, e.g., T-Mobile Comments, at 11-14; Sprint Comments, at 5-9; Clearwire Comments, at 3-7.

network. As discussed in Verizon's opening comments, the Open Development program facilitates the ability of third-party developers to produce new devices and applications that can run on the Verizon network. (Verizon Comments, Products Decl. ¶ 20.) Under this program, customers can use any wireless device that is certified as meeting the company's publicly available technical standards and any application the customer chooses on such devices. (*Id.*) The certification process is designed to ensure that, for example, the device does not cause objectionable interference to other spectrum users and will not jeopardize network security. Thus far, over 100 devices from dozens of manufacturers have been certified pursuant to this program.

With respect to applications, Verizon Wireless is also moving toward increasing the number of non-branded applications that have been optimized for use on its network. For example, Verizon Wireless and Skype recently announced a strategic relationship under which consumers using any of nine of Verizon's most popular smartphones will have access to an easy-to-use Skype mobile application.⁴⁶ This comes at about the same time that Skype has abandoned its open model application for Windows Phones, finding that it was unable to offer users a good "Skype experience" without working closely with a mobile operator partner to develop a customized and optimized offering.⁴⁷

In the fall of 2009, Verizon Wireless began soliciting third-party applications for its Media Store. At the Verizon Developer Community website,⁴⁸ developers can learn all the

⁴⁶ Press Release, *Verizon Wireless and Skype Join Forces To Create a Global Mobile Calling Community* (Feb. 16, 2010), available at <http://about.skype.com/press/2010/02/verizon.html>.

⁴⁷ Jason Ankeny, *Skype Scraps Windows Phones App*, *Fierce Mobile Content*, Feb. 26, 2010, available at <http://www.fiercemobilecontent.com/story/skype-scraps-windows-phones-app/2010-02-26>.

⁴⁸ See developer.verizonwireless.com.

details they need to develop applications for specific operating systems and phones, and how their applications can be made available to customers in the Media Store. Verizon Wireless is not alone in offering open platforms for application developers. For example, Google and T-Mobile USA's G1 device uses the Android open development software for its operating system, which enables any third party developer to write programs and applications for the G1 device.⁴⁹ Non-network operators, such as Nokia,⁵⁰ Qualcomm,⁵¹ and Ericsson,⁵² also offer platforms for developers to market their applications for mobile devices.

Verizon Wireless' 4G LTE network also will provide numerous opportunities for openness for both devices and applications. Verizon has nearly completed publication of the technical specifications based on the Third Generation Partnership Project (3GPP) standards for 4G LTE devices and applications. It has held two webcasts (in May 2009 and January 2010) to walk through those specifications with interested developers. The certification process will be similar to that used today for CDMA devices through the Open Development program. Verizon also recently announced the creation of the Verizon Wireless LTE Innovation Center – an “incubator” to assist third-party device and application developers to create innovative new products and services for LTE networks.⁵³ (Verizon Comments, Products Decl. ¶ 22.) The

⁴⁹ See <http://code.google.com/android/> and <http://www.t-mobileg1.com/g1-learn-faqs-phone.aspx>.

⁵⁰ See <https://store.ovi.com/>.

⁵¹ See Qualcomm Incorporated Press Release, *App Store Pioneer to Take Mobile Retailing to Any Device of Any Network with Plaza Retail*, May 18, 2009, available at <http://www.qualcomm.com/news/releases/2009/05/18/app-store-pioneer-take-mobile-retailing-any-device-any-network-plaza-retail..>

⁵² See Kevin Fitchard, *Ericsson rolling out mobile app store without Sony*, Telephony OnLine (June 26, 2009).

⁵³ Verizon Wireless News Release, *Verizon Wireless LTE Innovation Center to Drive 4G Next Generation Wireless Product Development*, Apr. 1, 2009, available at <http://news.vzw.com/2009/04/pr2009-03-3ld.html>; Richard Lynch, Exec. Vice President and

Center provides assistance with product development and design and the user experience, ranging from general guidance to efforts targeted to specific products under development. In addition to experienced Verizon Wireless staff, the Center offers access to LTE labs that are dynamically configurable to meet the specific needs of each participating company and the LTE products they are developing.

In April 2009, Verizon Wireless announced that, together with China Mobile, SOFTBANK and Vodafone, it would join the Joint Innovation Lab, which will “focus on creating a single global platform for developers to encourage the creation of a wide range of innovative and useful mobile widgets . . . capable of enhancing the mobile Internet experience on a variety of smartphones as well as mid- and low-cost handsets on multiple operating systems.”⁵⁴ The Lab provides both expert and novice developers with the resources needed to build a mobile widget. At the Lab site, developers can access software development kits (SDKs), code samples, and documentation such as release notes, tutorials, and API documents. The Lab’s long term plans include a distribution and payment mechanism to ensure that developers can roll out their products to customers in more than 70 countries across North America, Asia, Europe, and Africa.

In this environment, it certainly makes no sense to remake the wireless industry entirely, as New America Foundation suggests. Its comments take the astonishing position that the wireless industry should essentially pause for a period of what it asserts would be 18 months based on some unspecified experience in China and India to have carriers re-engineer their authentication, security, billing, and any other affected systems to move to a removable card-

CTO, Verizon, *Verizon’s Waltham Innovation Center* (Apr. 15, 2010) (speech at groundbreaking for Innovation Center).

⁵⁴ Verizon Wireless News Release, *Verizon Wireless to Join China Mobile, SOFTBANK and Vodafone in Creating the Largest Global Platform for Mobile Developers*, Apr. 1, 2009, available at http://www.softbank.co.jp/en/news/press/2009/20090401_01/index.html.

based model that would enable “any device” to attach to any network. (NAF Comments, App. A at 34-36.)

The evidence makes clear, however, that NAF’s proposal would lead to a worse outcome for consumers. Consumers today have the best of both worlds. They can choose among devices that are optimized for use on a specific carrier’s network and contain specialized features and capabilities that differentiate them from competitors *and* open devices that are designed by third parties. To the extent that NAF envisions a carrier-neutral environment in which devices are sold by “a range of retailers and resellers . . . but the devices are not locked to one network or blocked from other networks” (NAF Comments, App. A at 13), that environment is available today.⁵⁵ But it is characterized by fierce competition among the carriers to produce the most innovative, feature rich devices possible to attract subscribers to their network access services. As the Commission has explained, “[c]ompetition between mobile telephone providers using incompatible wireless network technologies has other advantages that can benefit consumers, including greater product variety and differentiation of services, more technological competition, and greater price competition.”⁵⁶ NAF ignores the fact that this competition-driven innovation would be eliminated in the environment it seeks, to the detriment of consumers.

That is evident from the European wireless model, where wireless technology choice is mandated, and the result is fewer choices for consumers, fewer innovations in wireless handsets, and less usage overall.⁵⁷ The most innovative and top-selling smartphones all got their start in

⁵⁵ See *CTIA Ex Parte*, Attachment: “Updating Assumptions”, at 5-6 (detailing various retail outlets for wireless devices, including Big Box retail stores, manufacturer-specific stores, on-line retailers, discount e-retailers, and secondary markets, such as E-Bay).

⁵⁶ *Thirteenth Competition Report*, 24 FCC Rcd at 6250 ¶ 127 (footnotes omitted).

⁵⁷ See Mark Lowenstein, “Innovation and the U.S. Wireless Industry,” GN Dkt. 09-157, at 8-15 (filed Sept. 30, 2009); Mark Lowenstein, “Comparisons Between U.S. and European Markets for Wireless Services and Devices: Myth vs. Reality,” Attachment to Letter from John T.

the United States,⁵⁸ rather than in the numerous mandated technology environments around the globe. And, as CTIA has documented, U.S. wireless consumers use their handsets more and pay less for usage than their counterparts in Europe.⁵⁹

NAF also ignores the fact that its proposal would require reversal of decades of Commission policy and rules. The Commission has fostered technological differentiation among mobile providers and has repeatedly declined to intervene in technology choices.⁶⁰ Indeed, at the dawn of cellular service, the Commission had adopted a single compatibility standard for analog

Scott, Verizon Wireless, to Marlene H. Dortch, FCC, Secretary, RM-11361 (Aug. 28, 2007); Letter from Christopher Guttman-McCabe, CTIA, to Ms. Marlene H. Dortch, FCC, RM-11361, Attachment: “The United States and World Wireless Markets,” at 11 (May 12, 2009) (noting that U.S. consumers have access to over 630 device models from 33 different manufacturers, whereas consumers in the United Kingdom have access to 147 models total) (“Wireless Markets Report”).

⁵⁸ See *CTIA Ex Parte*, Attachment at 7 (noting that the most advanced wireless devices available in the worlds have all been launched in the United States, including the Apple iPhone 3GS, Google Nexus One, Motorola Droid, BlackBerry Pearl, Tour, and Bold).

⁵⁹ Wireless Markets Report at 3-4.

⁶⁰ See Report and Order, *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, 17 FCC Rcd 1022, 1023 ¶ 1 (2002) (“The flexible allocation we adopt for the Lower 700 MHz Band will allow service providers to select the technology they wish to use to provide new services that the market may demand.”); see also Report and Order, *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, 18 FCC Rcd 25162, 25163-64 ¶ 1 (2003) (“Licensees in these bands will have the flexibility to provide any fixed or mobile service that is consistent with the allocations for this spectrum”); Third Memorandum Opinion and Order, *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, 9 FCC Rcd 6908, 6919 ¶ 66 (1994) (FCC declined to impose technical standards on nascent PCS because “imposition of a rigid technical framework at this time could stifle the introduction of important new technology”); Third Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act—Regulatory Treatment of Mobile Services*, 9 FCC Rcd 7988, 8069-70 ¶¶ 165-67 (1994) (declining to adopt standards for wireless interoperability); Report and Order, *Amendment of Parts 2 and 22 of the Commission’s Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service*, 3 FCC Rcd 7033, 7040 ¶ 51 (1988) (declining to intervene in standards setting process for next generation cellular systems: “Industry is in a better position to evaluate the technical advantages and disadvantages of the various advanced cellular technologies and develop approaches to compatibility.”) (“*Cellular Radio Technology*”).

cellular systems so “that any cellular mobile telephone is able to place and receive calls in any cellular system; and conversely, all systems are able to place and receive calls for any mobile telephone.”⁶¹ However, when presented with the prospect of adopting a similar technical standard for digital wireless systems, the Commission rejected the proposal, deciding that consumers would benefit from technology diversity:

Cellular service has undergone a rapid and highly successful development. This service has in its early stages been governed by detailed technical and compatibility standards. While these standards have served a useful purpose in providing a stable environment for the initial growth of this service, these same standards may now stand as an impediment to the development of a more spectrum-efficient service capable of accommodating the millions of additional cellular subscribers anticipated in the future we conclude that a greater range of technical and service options in the cellular service is in the public interest.⁶²

The Commission relied on the wireless sector to develop standards that would maximize benefits to operators and consumers. As industry groups were setting multiple standards for wireless networks, the Commission decided that no compatibility standards were needed for future systems. “We believe it would be premature for the Commission to intervene in the standards setting process. Industry is in a better position to evaluate the technical advantages and disadvantages of the various advanced cellular technologies and develop approaches to compatibility.”⁶³ The Commission noted that one significant problem with adopting a mandated standard is that such a rigid standard would be outpaced by developments in technology. “[T]he rate of change in digital techniques appears to be so great as to limit severely the value of” a compatibility standard.⁶⁴

⁶¹ *Cellular Radio Technology*, 3 FCC Rcd at 7038 ¶ 36.

⁶² *Id.* at 7034 ¶¶ 7-8.

⁶³ *Id.* at 7040 ¶ 51.

⁶⁴ *Id.* at 7040 ¶ 53.

To the extent there is a demand for compatibility, wireless networks have developed compatibility. For example, in response to consumer demand, GSM and CDMA carriers have developed standards that allow text messages to be delivered to each other's subscribers.⁶⁵ The competitive market worked exactly as the Commission predicted two decades ago: "[I]n a competitive market, such as exists in the provision of mobile communications services, market forces compel service providers to offer the quality and quantity of products sought by consumers."⁶⁶

NAF objects to having a network provider set the technical standards for its own network, rather than the Commission or some other third party. (NAF Comments, App. A at 19-20.) But NAF offers no evidence or economic analysis as to why this is harmful to consumers. Each carrier knows its own network better than any third party and is best situated to determine the technical standards to which a device must conform to minimize interference, maximize network performance, and otherwise provide the best possible customer experience. Indeed, even the Commission, in adopting "open access" rules for the 700 MHz Upper C-Block, mandated that the licensee would determine the technical standards to access the network.⁶⁷ To the extent that NAF's concern is that carriers might use these standards as a way to artificially limit the devices that are compatible with its network, it overlooks the fact that, in light of the highly competitive wireless broadband market, carriers have strong incentives to expand the array of attractive devices that consumers can use on their networks so as to attract and retain

⁶⁵ See, e.g., *GSM and CDMA MMS interoperability report announced*, Mobile Tech News, May 7, 2004, <http://mobiletechnews.com/info/2004/05/07/105706.html>.

⁶⁶ *Cellular Radio Technology*, 3 FCC Rcd at 7038 ¶ 33.

⁶⁷ 47 C.F.R. § 27.16(c).

customers – there certainly is no reason for a carrier to use technical standards as a proxy to block the availability of a handset that would increase consumer value.⁶⁸

Moreover, certification by independent test labs or the Commission in no way guarantees the environment that NAF envisions. The certification process typically only tests whether the device conforms to certain standards. It would not test whether the device would meet the specific features of any one carrier’s network. Nor would it serve as a test of whether the device would *perform* well on any particular network. One of the ways that any carrier achieves competitive differentiation is selling devices that have been optimized for performance on its network so as to provide users with the best possible experience. Consigning consumers to inferior performance for the sake of “openness” is short-sighted, unnecessary, and contrary to the best interests of consumers.

At bottom, the hundreds of comments filed in this proceeding provide no evidence that would remotely demonstrate a need to impose regulation in place of the market forces that have led to unquestionable success in the wireless broadband marketplace. There is no showing of any existing problem. At most, commenters predict that some harm might come about someday if regulation is not imposed now. Yet, as CTIA demonstrates, regulatory proponents have been making such predictions for a number of years, and they have each proven to be demonstrably false. *CTIA Ex Parte*, Attachment at 3-4. Such unsupported predictions cannot overcome the mountain of evidence demonstrating that the wireless broadband marketplace serves consumers well today and that market forces create strong incentives for network providers to continue to do so in the future.

⁶⁸ NAF’s proposal also appears designed to prevent a handset from being offered exclusively in connection with one network provider. The Commission’s *NPRM* makes clear that it does not intend to consider handset exclusivity in this proceeding and accordingly Verizon does not address that issue here. *NPRM* ¶ 170.

Technical Constraints in Wireless Networks Make Network Management Particularly Critical. Another reason that rules such as those proposed here should not apply to wireless is that wireless networks present particular technical and operational constraints that make network management even more complex and important than for wireline networks.⁶⁹ Regulatory proponents do not contest this reality. Instead, they assert that the proposed exception for network management will address this problem. But even a provision allowing for “reasonable” network management would introduce significant uncertainty about what practices are permitted and chill network engineers from developing and using innovative techniques. (Verizon Comments at 82-84.) And, as discussed below, *see infra* section IV.E, the same commenters who casually say that the allowance for network management in the proposed rules will address the constraints faced by wireless network providers, simultaneously are seeking a host of limitations and restrictions to that allowance, which would make it more narrow and introduce even further layers of uncertainty and complexity.

For example, these commenters suggest that easing traffic congestion is often not a legitimate goal of network management and network providers instead should increase capacity. Of course, in the wireless context, although providers can and do adopt measures to make use of their existing spectrum more efficiently, they generally cannot readily add capacity given the dearth of available spectrum and the fact that technology is approaching peak efficiency.⁷⁰ Thus, network management is often the only viable tool to address congestion. Moreover, network management actually can be a tool for more efficiently utilizing spectrum. Use of queuing and

⁶⁹ Verizon Comments, Network Mgmt. Decl. ¶ 17; AT&T Comments at 156-66; Clearwire Comments at 11; Leap Wireless and Cricket Communications Comments at 6-8, 10-12; MetroPCS Comments at 40-43.

⁷⁰ Verizon Comments, Network Mgmt. Decl. ¶ 17; AT&T Comments at 162-66; MetroPCS Comments at 43.

scheduling algorithms that send more packets of data to users with good signal-to-noise conditions at a given moment, and less when signal-to-noise conditions are bad, actually increases the average throughput for all users. (Verizon Comments, Network Mgmt. Decl. ¶ 20; AT&T Comments, Exh. 2 at 43-44.) Wireless providers must also account for a changing mix of users and uses in individual cell sites; actual congestion may be near impossible to address in real time because of mobility. Therefore, wireless providers must have available management procedures that create incentives for users to avoid large bandwidth consumption that would impact other users.

NAF's suggestion that network congestion can be solved through the use of tiered pricing to consumers (NAF Comments, App. A at 51) is unsupported by any economic or technical data. To be sure, tiered pricing can *help* address traffic congestion by sending appropriate price signals and encouraging more efficient use of the network. But the record evidence demonstrates that tiered pricing is far from a complete solution. For example, it does nothing to address the complications resulting from mobility in which the capacity demand at any given cell site is highly variable as subscribers (regardless of what tier of service they may have bought) move in and out of range of a site. Where too many subscribers are trying to connect to a site or are using too much capacity at a particular time, a carrier must manage the network to best serve all subscribers. As Verizon previously explained, that might mean, for example, restricting applications that degrade the service of other users by unnecessarily keeping an access connection alive through the use of "keep alive" functions or holding onto Media Access Control ("MAC") addresses even when they are not actively being used to transmit data to the network.⁷¹

⁷¹ Contrary to the claims of some, certain applications that would have no impact on a wireline network will have a substantial impact on a wireless network, such as applications that constantly "ping" the network. See Notice of *Ex Parte* Presentation from Scott Jordan, GN Dkt.

(Network Mgmt. Decl. ¶¶ 22-23.) Yet it is unclear whether these practices would be permissible under the proposed rules, let alone the narrower rules advocated by regulatory proponents.

Heavy-handed Regulation Would Be Particularly Harmful at This Juncture of the Industry's Development. It would make particularly little sense to impose prescriptive rules now, just as wireless broadband providers are in the midst of making massive investments to deploy 4G networks that will provide far greater speeds and capabilities and produce the third (fourth, fifth, and sixth) broadband pipes into the home. (*See, e.g.,* MetroPCS Comments at 45.) If the Commission were to apply burdensome new rules to wireless broadband services, it would throw into doubt whether network providers could earn the return necessary to justify those investments as various business models, products, and services were called into question. Moreover, the technical and operational challenges that will be posed by new 4G networks – and what network management practices might be needed – are inherently unknown at this point. For example, 4G network providers will want to offer voice over LTE or WiMax – a result the Commission should certainly want to encourage as it will both meet consumer demand and lead to more efficient use of spectrum because the same data network can be used for voice and data products. But wireless VoIP will require some form of prioritization and/or other forms of network management. Network providers should not be forced to operate in the shadow of some undefined restriction on network management and/or prioritization as they try to address this technical challenge. In light of the tremendous success of the wireless broadband marketplace, and the clear potential for even greater consumer benefits from the deployment of 4G, the Commission should not interpose burdensome and ambiguous regulations that likely will stifle the marketplace.

09-191, WC Dkt. No. 07-52 (Apr. 9, 2010). Accordingly, wireless networks must also manage resources at the application layer in ways different from wireline networks.

C. The Record Demonstrates that the Proposed Nondiscrimination Rule – and Its Introduction of Price Regulation – Would Undermine Investment and Innovation and Harm Consumers.

The record confirms that the Commission’s proposed nondiscrimination rule would cause manifest harm. There is widespread agreement that, as even the Commission acknowledges in the *NPRM*, discrimination can be affirmatively beneficial to consumers and competition.⁷² Yet the Commission’s rule would prohibit all discrimination, even going so far as to define as discriminatory any voluntary business arrangements under which network providers charge content and application providers in exchange for quality of service enhancements. Even some of the proponents of regulation such as Amazon and some content providers whom the rule is ostensibly meant to protect acknowledge that a ban on all discrimination as the Commission proposes is untenable (and indeed would go beyond what the law has required even in the context of common carriage service in a monopoly world).⁷³ Such a rule would discourage investment and innovation, distort competition, and limit consumer choice.

First, a nondiscrimination rule is incoherent because it is based on inaccurate assumptions about how the Internet works. Regulatory proponents suggest that such a rule is designed merely to preserve the status quo – that the Internet is “neutral” today because all Internet traffic is treated identically on an end-to-end basis, transmitted solely on a best efforts basis without any

⁷² *NPRM* ¶ 66; *DOJ Broadband Comments* at 27-28; Verizon-Google Joint Comments at 8 (“With respect to traditional Internet access services, the parties agree that differential treatment of Internet traffic by network operators may be either beneficial or harmful to users. Particular practices could be acceptable or unacceptable discrimination, depending on their effect on competition and on users.”); Comcast Comments at 38-39; Letter from Richard Whitt, Washington Telecom Counsel, Google to Marlene Dortch, Secretary, FCC, WC Docket No. 06-150 (filed Nov. 21, 2007) (recognizing that a flat ban on any discrimination that “prohibit[ed] any differential pricing or conditions” would be “counterproductive” and “overbr[oad]”).

⁷³ *See, e.g.*, Amazon Comments at 1-2; MPAA Comments at 15-19; Clearwire Comments at 12, 14-15.

prioritization or other forms of differentiation.⁷⁴ But the network engineers and technical experts submitting comments in this proceeding make clear that, “[t]he Internet has always used prioritization of traffic, congestion control and other methods of network management since the earliest days, as any technologist familiar with its full history can aver. Imposing any form of nondiscrimination via regulation would be a radical change from past Internet practice.” (AT&T Comments, Ex. A, Decl. of Farber and Faulhaber at 16-18.) Indeed, the ability to engage in differential treatment and quality of service enhancements is built into the DNA of the Internet. As one founder of the Internet notes, “the Internet protocols include standardized mechanisms . . . to provide quality of service (QoS).” (Clark, Lehr, and Bauer Comments at 10; *see also* Cisco Comments at 12-14.)

Differentiation on the Internet takes a variety of forms. For example, the use of content delivery networks, caching services, collocation, and other arrangements means that some traffic is expedited for delivery as compared to other traffic. (Katz Decl. ¶¶ 12-15.) Thus, “[t]he question isn’t so much whether expedited delivery should be allowed for sale – it already is and has been for some 15 years – but whether the market for expedited delivery services should be expanded to allow ISPs to compete with firms such as Akamai and Limelight on a level playing field.” (ITIF Comments at 19; Cisco Comments at 11-12.) Likewise, if one looks at the connection between a content provider and a network provider, “we see a rich space of negotiation and bargaining, and we see a lot of what an economist would call discrimination. The forms of discrimination include discounts for capacity at higher link speeds, and discounts (including payment-free) for so-called *peering* connections, where the content provider connects

⁷⁴ See, e.g., Free Press Comments at 103; Public Knowledge Comments at 47-50.

to the ISP only for the purpose of getting access to the customers of the ISP.” (Clark, Lehr and Bauer Comments at 20.)

Regulatory proponents largely ignore this reality. They also ignore that requiring network providers to treat all packets the same regardless of any quality of service needs of the associated application would have a highly *discriminatory* effect since it would harm quality of service for latency-sensitive applications such as VoIP, streaming video, and telemedicine, while having little effect on other applications for which a short delivery delay would make no discernible difference. The result would be a poor consumer experience with latency-sensitive applications and a resulting bias against their use and development – the exact opposite result that advocates of “neutrality” claim to desire. (*See* Cisco Comments at 6-7.)

For the same reason, the constant refrain from regulatory proponents that prioritization and other forms of quality of service are a “zero sum game” and that prioritizing one packet means deprioritizing another misses the point. Again, the technical experts explain why: “Some have argued that prioritizing some traffic necessarily disadvantages non-priority traffic. This is not the case. Traffic which is latency-sensitive (such as VoIP) can be seriously harmed if it does not receive top priority; traffic which is not latency-sensitive (such as movie downloads) can tolerate short delays without any harm whatsoever.” (AT&T Comments, Farber & Faulhaber at 18; MetroPCS Comments at 62.) Thus, as a matter of engineering, a network can prioritize packets associated with some applications and thereby ensure quality of service without having a material effect on other applications for which a fraction of a second delay makes no difference in terms of the consumer experience. Indeed, even the CEO of BitTorrent – the ostensible “victim” in the Comcast case – agrees that network management practices in which operators prioritize packets for more critical or latency-sensitive applications over less sensitive ones

(including BitTorrent itself) in times of network congestion are “totally defensible” and that “[n]eutral and priority can – in fact, they do – coexist.”⁷⁵

Second, the arguments of the regulatory proponents confirm that the nondiscrimination rule, including the prohibition on *any* charge to application or content providers for enhanced services, would foreclose – or create significant uncertainty and confusion about – many pricing and business models, services, and practices that consumers and application and content providers benefit from today, as well as restrict the introduction of new ones. Such an outcome would reduce innovation, diminish competition by perpetuating advantages enjoyed by established players as compared to upstart competitors, and harm consumers.

As an initial matter, it is important to recognize that price discrimination and offering a menu of service options of different quality is a common practice throughout the economy that is beneficial to consumers. (*See, e.g.*, MetroPCS Comments at 24-25.) For example, movie theaters routinely engage in price discrimination by offering discounts to students and seniors – this benefits both the theaters by increasing audiences (and revenue) and those who receive the discounts. Likewise, offering a menu of service options enhances consumer welfare. (Katz Reply Decl. ¶¶ 46-49.) Take, for example, the availability of overnight, two-day, and regular mail delivery service. If a delivery service were permitted to provide only one “speed” and offered only two-day service, then consumers would be harmed: those who needed faster delivery would have no option and those who could not afford the cost of two-day service but

⁷⁵ Stephen Lawson, *Broadband Has No Regulator, BitTorrent CEO Says*, PCWorld (Apr. 19, 2010); Stacey Higginbotham, *Google on Net Neutrality, Its Fiber Buildout and Cloud*, GigaOm (Apr. 12, 2010), available at <http://gigaom.com/2010/04/12/google-on-net-neutrality-its-fiber-buildout-and-cloud/> (reporting that Vint Cerf of Google said “that Google isn’t calling for every packet to be treated the same, but rather making sure the owners of the pipe don’t behave anticompetitively toward content flowing over their pipes. Prioritizing the flow of information for legitimate network management means is fine, but blocking them to stifle competition isn’t.”).

could have afforded regular mail would likewise be foreclosed. Yet the Commission’s proposed rule would impose just such a straitjacket on the Internet. As in these examples, a network provider that reaches voluntary business arrangements in which two content or application providers are paying different prices for differing quality of service “is not doing something secretive and manipulative to the traffic going across the network, it has just implemented a different Service Level Agreement with the two of them. . . . This seems reasonable.” (Clark, Lehr & Bauer Comments at 21.)

The Commission’s proposed rule would foreclose a variety of pricing and business arrangements that would benefit consumers. Clark, Lehr & Bauer provide a clear example:

we could easily imagine an arrangement in which a content provider pays an access provider to carry traffic to the subscriber without having that traffic count against the usage quota of the subscriber. This arrangement . . . would be a beneficial bargain in many cases for all concerned – providers of high-value, high volume content might be quite prepared to pay a fee to allow the subscriber to receive the information without worries about exceeding a monthly quota. From our point of view, this would be beneficial, rather than unacceptable discrimination.

(Comments at 21-22.) Content providers themselves make clear that they want the flexibility to be able “to enter into quality of service agreements with ISPs that enhance consumer welfare and consumer choice” and that “permitting content creators and ISPs to agree on quality of service assurances would enable consumers to enjoy innovative forms of entertainment without delay, disruption, or interference.” (MPAA Comments at 17.) But the Commission’s proposed rule – by forbidding any charges for such services – would effectively foreclose such services from being offered.⁷⁶

⁷⁶ Free Press would go even further and have the Commission prohibit such arrangements even if the network provider provided them at *no charge* – a restriction that would serve no purpose other than to harm consumers. (Free Press Comments at 75.)

Moreover, by limiting broadband Internet access providers' opportunities to benefit from the lawful distribution of content through commercial agreements with content and application providers, such a rule also would severely diminish network providers' ability to invest in mechanisms to protect the security of a third-party's intellectual property. Verizon, for example, has made millions of dollars of investments in a notice-based regime that helps ensure a customer learns of, and has the opportunity to take action to modify, allegedly infringing activity involving his or her Internet connection. But Verizon would have less ability to make that kind of investment if it could not enter into mutually beneficial commercial arrangements with content and application providers to distribute their lawful content.

The Commission's prohibition on two-sided pricing arrangements also would foreclose innovative pricing models in which fees to content and application providers enabled subscriber fees to be kept low or eliminated altogether (*e.g.*, akin to the model for free broadcast television). (Katz Reply Decl. ¶ 43; Becker/Carlton Decl. ¶ 65.) Google's economist notes that a provider in a two-sided network does not *have to* charge both sides. (Google Comments, Economides Decl. at 11.) That misses the point – providers should be free to experiment with different arrangements and let the market decide which ones work best. (MetroPCS Comments at 63.) Ironically, the example Google's economist cites then makes the point. He notes that American Express offers a card in which they charge merchants and then, instead of charging cardholders, offers them cash back. (Google Comments, Economides Paper at 11.) But that is precisely the type of arrangement that the Commission's proposed rule would foreclose – a network provider charging content and application providers as a means of subsidizing the costs for consumers. (Katz Reply Decl. ¶¶ 40, 44.) Instead, the Commission's rule would force consumers to bear all network costs, leading to higher prices and/or less network deployment. That would lower

adoption rates and undercut the very network effects that regulatory proponents tout as being critical to preserve. (*Id.* ¶¶ 42-45.)

In addition to apparently prohibiting a wide variety of services and business and pricing arrangements, the proposed rule would create uncertainty about popular existing arrangements that the Commission presumably does not intend to actually prohibit. For example, application stores and other services typically involve arrangements in which application or content providers make payments to network providers based on a percentage of revenues earned – would such payments be deemed unlawful under the proposed rule? Likewise, network providers may integrate or feature selected Internet content. Verizon’s Widget Bazaar, for example, provides access to a limited number of Internet applications such as Facebook. A provider storefront might include access to a limited range of content that appeals to a particular target audience (*e.g.*, children). Yet it is unclear whether such services “discriminate” against applications that are not included.

The combination of the prohibitions in the rule and the array of uncertainties it would create would lead to less innovation and competition. As a variety of technical experts explain, “prohibiting ISPs from offering performance enhancements for a fee discourages ‘edge’ innovations that could take advantage of those very network performance enhancements.” (AT&T Comments, Farber Decl. at 19; *see also* Clark, Lehr & Bauer Comments at 9 (“Some neutrality arguments seem to imply that a totally neutral platform with a single, best-effort service is best for stimulating innovation, but we believe that providing different service qualities for different sorts of applications is important.”).) ITIF notes, for example, that a prohibition on quality of service enhancements would make it much more difficult for an Internet TV service to be a viable competitor to broadband providers’ own video offerings: “the range of competitive

options available to the television consumer is actually reduced by a ban on the sale of expedited delivery services to competitive television service providers, not increased. Not all applications can be satisfied by single service level pricing, and banning QoS-based delivery pricing confines Internet TV to the slow lane when it needs a genuine fast lane.” (ITIF Comments at 18.) The same would be true for any number of applications whose feasibility would depend on the availability of enhanced quality of service, such as real-time medical applications and real-time streaming video applications. Application and content providers would have little reason to invest in developing such applications unless they could be assured that the content could be delivered to consumers with sufficient quality to make them attractive.

The proposed rule also would foreclose, or call into question, the ability of network providers to provide service enhancements that would compete with the offerings of content delivery networks. Ironically, the effect would be to deprive small content and application providers of the opportunity to obtain some of the benefits enjoyed by Google and other established players that have made enormous investments in their own network facilities so as to enhance their service quality. (Katz Reply Decl. ¶¶ 60-61; Cisco Comments at 11-12 (“Such ‘nondiscrimination’ regulation would also, ironically, be flatly discriminatory, preventing smaller users that cannot build their own CDNs or procure access to third-party CDNs from obtaining similar services from their broadband providers.”).) Indeed, claims by these established companies that the ability of network providers to offer quality of service enhancements for a fee would create a “two-tiered Internet” ignore present reality. (Google Comments at 35.) In fact, a two-tiered (indeed, a multi-tiered Internet) already exists today. (*See, e.g.*, AT&T Comments, Farber and Faulhaber Decl. at 19-20.) Large established players with sufficient resources already purchase CDN services or deploy networks to bring content

closer to consumers, bypass congestion points, and otherwise provide them significant competitive advantages over smaller, upstart competitors. The notion that an entrepreneur in his or her own garage today starts on a level playing field when competing with a Google, eBay, or Amazon is at best a romantic myth. The availability of quality of service enhancements from network providers will not level that field, but it will provide an additional option that will help smaller players compete more effectively and thereby benefit consumers.

Finally, regulatory proponents offer no evidentiary basis for their suggestion that increasing capacity is a better alternative to prioritization and other quality of service measures and renders those measures unnecessary.⁷⁷ Increasing capacity is extremely expensive and in some cases such as wireless broadband service, may not even be possible given the dearth of available spectrum. It would make no sense to incur that enormous expense in place of engineering the network to handle traffic more efficiently by providing priority to latency sensitive applications in a way that does not harm the service quality of non-prioritized traffic. That is all the more true given that, under the proposed rule, the increased capacity costs would all be borne by consumers. Moreover, simply relying on network providers to increase capacity would mean that content and application providers would bear no costs for developing applications that used bandwidth inefficiently and lead to even greater network congestion. (Becker/Carlton Decl. ¶ 62.) By contrast, payments from content/application providers for heightened quality of service would send appropriate price signals to broadband access providers in making decisions about whether to invest in additional capacity and network functionality. (*Id.* ¶¶ 21, 62; MetroPCS Comments at 30; AT&T Comments at 107-08.)

⁷⁷ See, e.g., Free Press Comments at 97-98; Public Knowledge Comments at 45.

Third, the harms and uncertainty resulting from a nondiscrimination rule would only multiply going forward. As new services such as telemedicine and real-time video that are latency-sensitive become more prevalent, the need for enhanced quality of service and other measures beyond simple “best-efforts” transmission will only increase. (ITIF Comments at 8-9, 12-13.) Thus, a regime that forced a single, best-efforts delivery mechanism would become increasingly outmoded and less suited to delivering the applications that consumers desire and that the Commission has said are important in connection with the National Broadband Plan. Further, even as more services integrate components from the Internet (*e.g.*, a provider’s “storefront” with selected Internet content or Verizon’s Widget Bazaar), requiring that access be provided to all (and on identical terms) could well preclude the provider from integrating any Internet-delivered content at all. Because the development of these differentiated services are at a nascent stage and no one can predict how they will develop, now is exactly the wrong time to impose a broad nondiscrimination rule that would flash freeze these innovations.

D. The Commission Should Not Impose Limits on Managed or Specialized Services.

The record reflects considerable confusion about what the category of “managed” or “specialized” services might encompass. In one respect that is understandable. Such services are at their nascent stages, and many services that presumably would fall within this category – such as telemedicine applications, SmartGrid, tailored storefronts, and various forms of video services – are only at the cusp of being offered. Yet precisely because these services are not yet well understood and stand to unleash a new wave of innovation, any attempt to regulate them would be both especially harmful and unjustified. Instead, as commenters such as Clark, Lehr, and Bauer explain, the Commission should make clear that any network provider that offers traditional Internet access also should be free to offer consumers any additional services that the

consumer wants to choose, without regulatory limitations or restrictions. That approach will give consumers additional and new options that they can choose to take (or not), while maintaining their ability to select a traditional Internet service offering. The result will be greater consumer choice and continued incentives for innovation and investment in new types of services that will benefit consumers.⁷⁸ Conversely, applying any rules for the first time to “managed” or “specialized” services would cause significant harms.

First, as Verizon explained, the ability to offer managed and specialized services is critical to the business case for the investments needed to expand broadband deployment and to add capacity and new capabilities to the network.⁷⁹ Although the revenues earned from traditional public Internet access services are also an important part of the business case, they alone cannot justify the necessary investments. Thus, the suggestion by commenters that giving network providers the flexibility to offer managed services will come at the expense of traditional Internet access has it backwards. (*See, e.g.*, Free Press Comments at 105.) The ability to offer such services will help justify the investments that in turn will increase the speeds and capabilities for traditional Internet access as well. That is evident from Verizon’s deployment of FiOS. Verizon could not have justified the massive investments without the ability to offer the

⁷⁸ See Rebecca Arbogast & David Kaut, Stifel Nicolaus, *Call Transcript on Net Neutrality and Broadband Regulation After Comcast Ruling*, at 3-4 (Apr. 15, 2010) (Paul Misener, Vice President for Global Public Policy at Amazon, explaining that regulatory regime under which network operators are discouraged from “deploy[ing] some of the really cool managed services that they might want to, and get paid for doing so” will “frustrate[], not just the network operators, but also consumers and Internet service providers who might really benefit from managed services”).

⁷⁹ Verizon Comments at 42-43, 78-79; *see also* Google Comments at 74-75 (“The potential benefits derived from non-Internet access revenues include . . . heightening incentives to invest in broadband infrastructure generally.”); Alcatel-Lucent Comments at 20 and Exhibit at 14-16 (managed services are not “a threat to ‘best effort’ broadband Internet access but rather . . . a full complement to this form of access and one that will financially justify the widespread broadband availability the Commission seeks to achieve”); Cisco Comments at 6; Comcast Comments at 65.

video subscription service that now competes with cable (and that the *NPRM* acknowledges is a managed service), as well as the potential for other differentiated services. But that investment in turn now means that FiOS customers are able to obtain Internet service at speeds that dwarf those of DSL.

Nor is there any basis for regulatory proponents' speculative concern that network providers might allocate "too much" capacity to their managed services at the expense of traditional Internet access. (*See, e.g.*, CDT Comments at 49; Free Press Comments at 105, 109; Google Comments at 76.) Again, FiOS serves as a direct counterexample because, as noted above, FiOS customers have access to Internet speeds that far exceed those of DSL. More generally, this argument again gets the economic incentives wrong – a provider that tried to allocate insufficient capacity for public Internet access would quickly lose customers to competitors. (Verizon Comments, Topper Decl. ¶¶ 142-45.) Indeed, even proponents of the proposed rules concede this reality. As CDT observes, "broadband Internet access providers that are failing to invest in bandwidth for Internet access service" would "be subject to criticism and pressure from the Commission, watchdog groups, Internet users, and ultimately the marketplace."⁸⁰

Second, particularly because managed and specialized services are still in their infancy, the dividing line between them and Internet access is inherently unclear – that will be all the more true as additional services integrate content or features from the Internet (*e.g.*, Verizon's Widgets which permit access to selected Internet content such as Facebook and Twitter). As the cacophony in the comments illustrates, there simply is no way to define a category of permissible

⁸⁰ CDT Comments at 50; Public Knowledge Comments at 34 ("[C]onsumer demand for fast broadband should, in most cases, be enough to ensure that this temptation [disadvantaging broadband Internet access in terms of capacity] is resisted.").

services and, even if there were, it would quickly become outdated as new innovative services were developed. To be sure, there is some agreement on certain services that should be considered managed or specialized services. Most notably, even some proponents of regulation concede that private IP and other services offered to enterprise customers should be off limits to regulation, and Verizon certainly agrees.⁸¹

But the fact that there may be some consensus about certain examples does not alter the fact that any definition that attempted to capture all managed or specialized services would inevitably leave significant ambiguities and be underinclusive, with the result that innovative service offerings would be delayed or not offered at all. For example, CDT suggests that “specialized services” be defined to exclude any service that shares bandwidth with Internet access service over the last mile (CDT Comments at 48-49) – yet that would mean services such as FiOS TV and U-Verse may not qualify as managed or specialized services, even though the Commission points to such services as paradigmatic managed or specialized service. *NPRM* ¶ 148.

Similarly, other commenters propose definitions or limitations that seemingly would have the effect of subjecting to the proposed rules any service that included *any* content from the Internet. Google, for example, asserts that managed services should not include “any service that makes use of the public Internet, or NAPs, at any point along its communications path.” (Google Comments at 75.) Along the same lines, CDT says that a service that offered “select” web content could not be a managed or specialized service. (CDT Comments at 50.) Such a rule apparently would mean that a storefront or other service that offered access to select Internet content suitable for children or access to a limited set of Internet content to offer a simplified

⁸¹ See, e.g., CDT Comments at 47; Free Press Comments at 128 (“[T]he proposed rules . . . would not in any way impact enterprise services.”).

experience for those unfamiliar with computers would be subject to the full panoply of proposed rules. That in turn would seemingly preclude the service in the first place since it would be providing access only to some applications and content on the Internet and thus be “blocking” access to others. But barring such services clearly is not in the interest of consumers, because it just eliminates additional choices that might fulfill consumer needs and demands. The *NPRM*’s definition of “broadband Internet access service” suffers from the same flaw. (*See Verizon Comments at 79.*)

Some commenters, perhaps recognizing the futility of trying to define an exhaustive list of permissible managed or specialized services, instead suggest that the Commission send all such services to regulatory purgatory. Free Press, for example, proposes that the Commission “refrain from resolution” of how to treat such services.⁸² (*Free Press Comments at 110-11.*) Public Knowledge agrees, and indeed would go a step further and subject such services to Commission approval on a case-by-case basis. (*Public Knowledge Comments at 32-35.*) But the uncertainty that would result from leaving open the question whether managed or specialized services are subject to the proposed rules – or whether they would be “approved” by the Commission – would create strong disincentives for the investment and innovation needed to develop those services in the first instance.

Third, the only practical course is for the Commission to make clear that any rules it does adopt do not apply to anything but traditional Internet access service. Instead, any network

⁸² Lest that might leave any possibility such services would go unregulated, Free Press is quick to say that such services should be subject to the Computer Inquiry rules because “[m]anaged services involve telecommunications, and thus differ from pure information services and cannot be classified as such.” (*Free Press Comments at 107.*) But that is incoherent. In fact, *all* information services by definition “involve telecommunications.” 47 U.S.C. § 153(20) (defining “information service” as the “offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information *via telecommunications*” (emphasis added)).

provider that offers traditional Internet access also should be free to provide consumers with the option of choosing any additional services that the provider offers, without regulatory restriction, including services that integrate selected Internet-based content.⁸³ Such an approach will avoid the hopeless morass of trying to define permissible managed or specialized services and will encourage investment and innovation in new services and maximize consumer choice.

Conversely, there is no factual or economic justification for attempting to regulate emerging managed or specialized services. The most that regulatory proponents are able to muster is that these “future potential services *could* introduce tremendous harm.” (Free Press Comments at 110 (emphasis added).) But regulation should not be the *default* option for new, innovative services. The Commission can and should impose regulation only upon a showing of some actual harm to competition and consumers (even assuming the Commission has statutory authority to regulate the service in question) – here, by definition, no such showing can be made since such services are only now emerging. Indeed, it would make little sense to impose requirements for access to all content and applications on the public Internet or “nondiscrimination” on managed or specialized services when customers of such services are not intending to purchase undifferentiated access to the public Internet. A patient wearing a remote heart monitor does not expect or need to be able to watch YouTube videos using that monitor.

⁸³ See Clark, Lehr and Bauer Comments at 26 (“[A]s long as ISPs offer at least one version of a service that supports the traditional type of undifferentiated best-effort Internet access service, they should be allowed to offer other forms of Internet access that may deviate from this . . .”); Alcatel-Lucent Comments at 22-23; AT&T Comments at 99 (Commission should limit application of rules only to those services that “offer[] to the public the capability to transmit data to, and receive data from, all or substantially all endpoints that have a unique IANA-assigned Internet address that is publicly announced and globally reachable (either directly or through a proxy).”); Verizon-Google Joint Comments at 8 (“[B]roadband network providers, in addition to offering traditional Internet access services, should have the ability to offer consumers additional service options over their broadband facilities”).

The Commission should make clear that the provider of such a service – or any other service offered in addition to traditional Internet access service – is not subject to any rules the Commission does adopt in this proceeding.

E. The Record Demonstrates that a Rule Concerning Network Management Would Limit the Ability of Network Providers To Protect and Better Serve Consumers.

Network management is critical to the ability of broadband providers to serve and protect their consumers. As Verizon and others explained, a rule stating that broadband providers may engage only in “reasonable” network management would undermine the ability of providers to engage in practices needed to serve and protect consumers. Ironically, the arguments of regulatory proponents that various network management practices should be deemed unreasonable confirm Verizon’s point: adoption of any rule in this area will leave tremendous uncertainty and subject network engineers to second-guessing and significant regulatory risk. The result will be an over-lawyered process that reduces flexibility and experimentation, deters the development and use of innovative practices, and is ineffective at handling new security threats and rapidly changing conditions. That is all the more true under the more limiting and complex standards and tests that some parties advocate in place of the proposed rule.

First, the record establishes without doubt that network management plays an essential role in maintaining a well-functioning Internet. Even proponents of the proposed rules now acknowledge this to be true. (*See, e.g.*, Verizon-Google Joint Comments at 7 (“We also continue to agree – as do virtually all parties – on the importance of network management.”); Public Knowledge Comments at 35 (“The proposed exceptions for Reasonable Network Management acknowledge the necessity for network providers to engage in practices that ensure the proper operation of networks.”).) Network management is especially critical for purposes of security,

both in terms of threats to the network and devices (*e.g.*, denial-of-service attacks, hacking, viruses, worms, and malware) and attacks on consumers (*e.g.*, phishing and spam). (Verizon Comments, Network Mgmt. Decl. ¶ 13.) And, as discussed above, the need for network management is acute in the context of wireless broadband services due to the complications introduced by mobility and a variety of other technical constraints.

One area where network management is particularly critical is cybersecurity. Just recently, the federal government released a summary of the previously classified Comprehensive National Cybersecurity Initiative that outlines various federal efforts to strengthen cybersecurity. Among those efforts is deployment of a system designed to provide real-time detection and prevention of intrusions into Executive Branch computer networks and systems, including by having a cooperating Internet service provider temporarily redirect Internet traffic to and from .gov websites to permit inspection for malware and other malicious traffic.⁸⁴ This initiative is just an example of the type of novel network security approach that network providers could deploy to combat security threats, but that could be called into question depending on how “reasonable network management” is interpreted.

Second, contrary to the claims of some commenters,⁸⁵ increasing capacity is not a replacement for network management. Some forms of management are needed regardless of network size – for example, adding capacity does not obviate the need for network security measures. And, particularly in the case of wireless broadband services, adding capacity may not

⁸⁴ White House, *Comprehensive National Cybersecurity Initiative* at 3 (Mar. 2, 2010), available at www.whitehouse.gov/cybersecurity/comprehensive-national-cybersecurity-initiative.pdf; U.S. Department of Homeland Security, *Privacy Impact Statement for the Initiative Three Exercise* (Mar. 18, 2010), available at www.dhs.gov/xlibrary/assets/privacy/privacy_pia_nppd_initiative3.pdf.

⁸⁵ See, *e.g.*, Free Press Comments at 84; Google Comments at 69; Open Internet Coalition Comments at 42-43.

be possible because, for example, wireless providers only have access to as much spectrum as the government makes available. Even where the addition of capacity is at least possible and could in theory address an ongoing issue (*e.g.*, easing traffic congestion), the assertion by some commenters that such a course is always “the optimal solution” (Google Comments at 69) is wrong. Adding capacity is very expensive. In many cases, network management is the more efficient – or only – solution for a congestion issue. (Katz Decl. ¶ 48; Katz Reply Decl. ¶ 29; Alcatel-Lucent Comments at 7-10; Cisco Comments at 10-11.) Today, the competitive pressures in the marketplace create the proper incentives for network providers to make the more efficient choice. By contrast, if a provider were precluded from using network management in a situation where network management was the more efficient approach, it either would have to let service quality deteriorate or it would have to incur the costs of adding capacity, which would result in higher prices to consumers than if it were able to use network management. Neither outcome would be in the interest of consumers.

Moreover, there would be no basis to force that inefficiency on broadband Internet access providers, while leaving other members of the Internet ecosystem to make the efficient choice. Google is one of the Internet’s largest network operators, as are Akamai and other owners of content delivery networks. Likewise, content and application providers have to manage large traffic volumes across their server networks. (Verizon Comments, Network Mgmt. Decl. ¶¶ 33-35.) They all must engage in network management to address issues such as security threats and changes in traffic patterns. Their practices affect users’ access to applications and content as much as those of broadband Internet access providers, and thus they should be required to operate under the same rules.

Third, network providers must have maximum flexibility to determine the best way to address the ever-changing array of security threats, evolution in traffic patterns, and other changes in network use. As the Center for Democracy and Technology recognizes, network providers need “ample leeway to identify and respond quickly to the evolving nature of security threats, malware, spam, and other harmful or unwanted traffic.” (CDT Comments at 41.) And even Free Press concedes that a rule attempting to catalogue acceptable and unacceptable practices “would inevitably become incomplete, obsolete, and inflexible to maintain over time.” (Free Press Comments at 86.) This is all especially true in the case of wireless broadband services, where the technology is evolving with the deployment of 4G networks, and no one can know how such networks will be used and what security threats will emerge. Consumers will benefit most if network operators have wide latitude to innovate and adopt the best possible techniques to make networks secure and operate most efficiently.

Although the Commission’s proposed reasonableness standard would afford some flexibility, it still would deter efficient network management by creating significant uncertainty about what practices would, in hindsight, be deemed reasonable. The harms from such uncertainty are manifest. It would slow response times as engineers would be forced to consult with lawyers to obtain an opinion about whether a particular technique likely would or would not be deemed reasonable. Because the answer to that question would be inherently uncertain – particularly in the context of new, innovative network management practices – network providers would be discouraged from innovating or trying new, potentially more effective techniques.

A recent example illustrates the concern. Verizon Wireless detected a traffic pattern from an IP address associated with the 4Chan family of websites that experience has shown is often a

precursor to an attack and accordingly temporarily blocked traffic to and from that IP address as a precaution. After further investigation and determining that there was no risk of harm, Verizon restored the connection to that IP address within a few days. In this case, as in most situations involving a security threat, Verizon needed to act quickly in the face of incomplete information to ensure that its network and customers were not significantly disrupted. But if the Commission’s proposed rule were in place, Verizon could be subject to a complaint proceeding and expensive litigation over that issue. And, faced with that risk, the next time a network operator might not act as expeditiously in response to a potential threat, with the possible result that its network and users would be damaged. These types of judgments are best left to the network engineers who are experts in assessing emerging threats and determining the appropriate response.

The proposals of some commenters to impose even further limitations or restrictions on network management would only make things worse. Several regulatory proponents assert that the Commission should require network management to be “narrowly tailored” so that any action is “precise and fine-grained” and limited in time and geography and uses only standard and widely-accepted methods.⁸⁶ But such a “strict scrutiny” approach would multiply the harms resulting from a “reasonableness” standard. In the face of a quickly emerging security threat, engineers will not have time to assess all possible alternatives to determine if they are using the narrowest one possible – or if they took the time to do so (even assuming it were possible to make such a determination), the threat may already have caused harm to consumers or the network. And, while reliance on an industry standard method certainly should be per se acceptable, limiting network providers to use of such standards would hamstring their ability to

⁸⁶ See, e.g., Free Press Comments at 83-84, 99; Google Comments at 69; Public Knowledge Comments at 40.

deal with new developments and chill innovation in new techniques. Faced with after-the-fact second guessing by complainants and ultimately the Commission, network providers and their engineers would be forced to rely on a narrow range of “acceptable” techniques, even as they became less effective and relevant to new security threats and changes in how networks were used.

Similarly, the call by some commenters to eliminate the portion of the proposed rule permitting use of network management to prevent the transmission of unlawful content makes no sense. According to these commenters, such a provision is unnecessary because the nondiscrimination and other requirements apply only to lawful content, and thus network providers are able to block unlawful content, but at the same time would not be allowed to engage in any practice that had “collateral effect” on lawful activity.⁸⁷ But these commenters’ apparent assumption that network providers could precisely target unlawful content without having some inadvertent effect on lawful content ignores reality. This approach also would fly in the face of Congress’s instruction in Section 230 that providers of interactive computer services may not be held liable for “any action . . . in good faith to restrict access to or availability of material that the provider . . . considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected.”⁸⁸ 47 U.S.C. § 230(c)(2). Thus, if a network provider in good faith adopts a network management practice designed to prevent the transmission of harmful or

⁸⁷ See, e.g., CDT Comments at 42; EFF Comments at 11; Google Comments at 72; OIC Comments at 52.

⁸⁸ The Digital Millennium Copyright Act similarly provides that “a service provider shall not be liable to any person for *any claim* based on the service provider’s good faith disabling of access to, or removal of, material or activity claimed to be infringing or based on facts or circumstances from which infringing activity is apparent, *regardless of whether the material or activity is ultimately determined to be infringing.*” 17 U.S.C. § 512(g)(1) (emphasis added).

unlawful content, the Commission could not take action against that provider, even if there were an inadvertent collateral effect on lawful content.

Other proposals by commenters are even more radical, such as the inexplicable suggestion that network providers should not be able to take steps to prevent denial of service attacks unless users opt in to them (Google Comments at 72) and the claim that prioritization should effectively be banned as a network management practice (Free Press Comments at 103; Public Knowledge Comments at 45-46). The fact that commenters are willing to go that far only illustrates the danger of adopting any rule restricting network management. Because such a rule inevitably will have to be based on a malleable, general standard, it will leave open the ability of advocacy groups, competitors, and any other party to second-guess complex engineering decisions, subject network providers to all manner of formal complaints, and create a regime fraught with uncertainty that will increase costs and risks and harm the operation of networks and their users.

V. The Comments Confirm that the Sweeping Rules Proposed Here Would Be Unlawful.

A. The Broad Rules Proposed in the NPRM Do Not Fall Within the Commission's Ancillary Authority.

As Verizon and other parties demonstrated, the Commission cannot stretch its ancillary authority to encompass sweeping rules such as those proposed here.⁸⁹ As the D.C. Circuit recently reaffirmed in *Comcast v. FCC*, the Commission does have “ancillary authority” to take certain actions that are not expressly delegated to it in appropriate circumstances. But as the court also reaffirmed, the Commission may do so only where it satisfies the requirements established in a decades-long string of Supreme Court and D.C. Circuit precedent. First, the

⁸⁹ See, e.g., Verizon Comments at 86-109; EFF Comments at 6-10; AT&T Comments at 208-23.

proposed regulation must fall within the Commission’s subject matter jurisdiction. Second, the regulation must be “ancillary” to some “statutorily mandated responsibilit[y]” expressly delegated to the Commission under a substantive provision of the Act. And, third, the Commission must compile a concrete evidentiary record demonstrating that its proposed action is necessary for the effective performance of that statutorily mandated responsibility. *See Comcast*, 2010 WL 1286658, at *3 (D.C. Cir. Apr. 6, 2010); *see also United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968); *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979); *American Library Ass’n v. FCC*, 406 F.3d 689, 700 (D.C. Cir. 2005).

The Commission’s assertion of ancillary authority to promulgate the sweeping rules proposed here fails to meet these basic prerequisites. As an initial matter, a regulation by definition cannot be ancillary to the Commission’s authority if it is *inconsistent* with the Act. *See, e.g., FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) (“*Midwest Video II*”). Here, the proposed rules would be squarely contrary to the Act to the extent they would impose the equivalent of core common carriage obligations (or worse) on information services – a problem that regulatory proponents never directly confront. (Verizon Comments at 93-95.) Under the Act, the Commission can impose common carriage regulation on a provider “only to the extent that it is engaged in providing telecommunications services.” 47 U.S.C. § 153(44). Because “telecommunications services” and “information services” are mutually exclusive categories, a provider cannot be subject to common carriage regulation under Title II with respect to the provision of information services. *See NCTA v. Brand X Internet Servs.*, 545 U.S. 967, 975 (2005) (“The Act regulates telecommunications carriers, but not information-service providers, as common carriers.”). The Commission has repeatedly found that broadband Internet access

services are “information services,” and thus under the Act they cannot be subject to common carriage regulation.

Yet some of the proposed rules would do precisely that. Most notably, a broad nondiscrimination requirement is a paradigmatic example of common carriage regulation. Indeed, the sweeping nondiscrimination rule the Commission proposes here would be even stricter than the common carriage rule contained in sections 201 and 202 of the Act, which is at least limited to “unreasonable” discrimination, and would even go so far as to effectively prohibit a wide variety of arrangements with application or content providers that could benefit consumers. Moreover, as discussed above, the proposed rule would amount to a form of price regulation of services provided by broadband Internet access providers to application and content providers. But, again, price regulation is a core common carriage obligation. And even common carriage regulation would allow broadband providers to charge a “reasonable” rate, whereas the Commission’s even stricter proposed rule would prescribe a rate of zero. Thus, the situation here is parallel to *Midwest Video II*, where the Supreme Court rejected the Commission’s assertion of ancillary authority to impose regulations on cable companies that were tantamount to common carriage obligations as contrary to the Act. 440 U.S. at 700-02.

Moreover, as even some supporters of the broad proposed rules recognize, the Commission has identified no substantive provision to which those rules would be ancillary. Aside from general purpose provisions that cannot provide a basis for ancillary authority, the Commission points to only three specific statutory provisions in the *NPRM*, but, as the Electronic Frontier Foundation conceded even before *Comcast*, none of these “provide[s] a sufficient statutory predicate for the proposed regulations.” (EFF Comments at 8.) The D.C. Circuit’s opinion merely reaffirms this.

First, the Commission cites language in section 201(b) that provides authority “to prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter.” But by its terms this language simply begs the question what “provisions” the proposed rules would “carry out.” (Verizon Comments at 98-99; CDT Comments at 16 (section 201(b) “[a]t most . . . gives the FCC authority to carry out other *specific* provisions of the Communications Act,” which “the Commission has not named”).) To be sure, the court in *Comcast* did not address the different argument made by Commission counsel that it might have authority ancillary to the separate substantive provisions of section 201 to take certain actions that would promote competition from Internet-based voice services and, through such competition, help ensure just and reasonable rates for traditional telecommunications services. *See Comcast*, 2010 WL 1286658, at **17-18 (declining to consider such an argument by counsel where it was not the basis for Commission action). Likewise, the court did not definitively rule on a similar theory with respect to Internet-based video services under section 623. *See id.* at *18. However, in order to successfully rely on any such theory, the Commission would have to propose a rule specifically targeted to such an end and develop a concrete factual record demonstrating that the proposed rule is needed to fulfill the Commission’s statutory responsibility in today’s competitive marketplace. The Commission has done neither here. Its proposed rule sweeps far too broadly to be plausibly linked to its expressly delegated statutory responsibility to ensure just and reasonable rates for voice and video services – for example, flatly prohibiting *any* charge for an enhanced service offered by a broadband Internet access provider to *any* content or application provider is not ancillary to that responsibility. And in any case, the current record evidence does not begin to demonstrate that any rule – let alone the ones it has proposed here – is needed since there is no evidence of a systemic problem that has

resulted in harm to either competition or to consumers. The overwhelming evidence is to the contrary.

Second, the Commission points to policy statements contained in section 230. But, as the Court held in *Comcast* in rejecting section 230 as a source of ancillary authority, “policy statements alone cannot provide the basis for the Commission’s exercise of ancillary authority” because they “are not delegations of statutory authority” and do not set forth “statutorily mandated responsibilities.” *See Comcast*, 2010 WL 1286658, at *10, *11. Moreover, as CDT aptly notes, relying on section 230 “as a basis for extending . . . regulatory authority [to] reach the Internet would simply turn the statutory provision on its head.” (CDT Comments at 14; *see also Verizon Comments* at 99-100.) Congress found in section 230 that the Internet and related services “have flourished, to the benefit of all Americans, *with a minimum of government regulation*” and that it therefore intended the Internet to continue to develop “*unfettered by Federal or State regulation.*” 47 U.S.C. §§ 230(a)(4), (b)(2) (emphasis added). In addition, section 230 expressly provides that providers of interactive computers services, including Internet access providers, cannot be held liable for any good faith action taken to *restrict* access to content they deem to be objectionable, even if not unlawful. *Id.* § 230(c)(2). It makes little sense to suggest that rules requiring Internet access providers to provide access to all lawful content is ancillary to such a provision.

Third, section 706(a) likewise does not delegate any substantive function to the Commission to which the rules proposed here could be ancillary. (*Verizon Comments* at 100-01.) The Commission previously has held that this subsection is, as its terms suggest, a “general” policy provision intended to “encourage the deployment” of advanced services through the use of other sources of regulatory authority, and the D.C. Circuit noted that “the Commission

remains bound by its earlier conclusion that section 706 grants no regulatory authority.”

Comcast, 2010 WL 1286658, at **16-17. Even apart from that prior conclusion, because section 706(a) on its face is merely a general statement of policy, “[a]s in the case of section 230(b) and section 1, the Commission is seeking to use its ancillary authority to pursue a stand-alone policy objective, rather than to support its exercise of a specifically delegated power.” *Id.* at *16. As CDT notes, section 706(a) at most is “appropriately understood to mean that the FCC should encourage the deployment of transmission capabilities, not that the Commission has general Internet regulatory authority that would allow it to regulate how those capabilities are used.” (CDT Comments at 16.) As discussed below, section 706(b) does direct the Commission to take action if certain circumstances are present – namely to “take immediate action to accelerate deployment of [advanced telecommunications] capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.” 47 U.S.C. § 1302(b). But that provision is addressed to accelerating the “deployment” of advanced telecommunications capability and is focused on “infrastructure investment” in areas where the Commission has made a factual finding that advanced telecommunications capabilities are not being deployed in a “reasonable and timely fashion.” While that may well provide authority for universal service support for broadband deployment, it does not provide a statutory basis for the sweeping rules proposed here – which are not targeted to particular geographic areas or particular customers that lack advanced telecommunications capabilities and, far from accelerating infrastructure deployment, would deter infrastructure investment.

The half-hearted efforts by some regulatory proponents to offer alternative bases for the sweeping rules proposed here fare no better. CDT, for example, suggests that the Commission’s authority to promulgate the proposed rules derives from its power to regulate “the actual

transmission of communications by wire or radio.” (CDT Comments at 17-22.) This argument conflates the separate prongs of the ancillary authority test. Under section 1 of the Act, the transmission of wire or radio communications defines the scope of the Commission’s subject matter jurisdiction. But, as the D.C. Circuit has explained, the Commission may not regulate freely about any subject that falls within its jurisdiction. *American Library Ass’n*, 406 F.3d at 700. Rather, the Commission must also demonstrate that its exercise of authority is both ancillary to some express grant of authority under a substantive provision of the Act and necessary for the effective performance of an expressly delegated responsibility under that provision. And, contrary to CDT’s claim, section 1 of the Act is not a source of such a delegated responsibility.⁹⁰ Indeed, the D.C. Circuit in *Comcast* rejected section 1 as a source of ancillary authority and explained that such a theory, “if accepted . . . would virtually free the Commission from its congressional tether” and give the Commission a roving mandate to regulate all facets of the transmission of communications – precisely what the courts have said the Commission may not do. *See Comcast*, 2010 WL 1286658, at *12; *see also Verizon Comments* at 89; *Electronic Frontier Foundation Comments* at 9-10.

The Supreme Court did not hold otherwise in *Brand X*. Rather the Court there simply recognized that, because cable modem service involves the transmission of communications, “the Commission has *jurisdiction* to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications, *see* §§ 151-161.” *Brand X*, 545 U.S. at 976 (emphasis added). The Court clearly was not suggesting that the Commission had *carte blanche* authority under Title I to impose any regulation it chose on cable modem (or any other information) service. And it was not presented with any proposed exercise of ancillary

⁹⁰ *See, e.g., California v. FCC*, 905 F.2d 1217, 1240 n.35 (9th Cir. 1990); *Southwest Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1479 (D.C. Cir. 1994).

authority and accordingly had no reason to address the separate question whether any particular regulation was in fact a proper exercise of the Commission's ancillary authority. As the D.C. Circuit concluded, "[b]y leaping from *Brand X*'s observation that the Commission's ancillary authority may allow it to impose *some* kinds of obligations on cable Internet providers to a claim of plenary authority over such providers, the Commission runs afoul of *Southwestern Cable* and *Midwest Video I*." See *Comcast*, 2010 WL 1286658, at *16.

Google's suggestion that the sweeping rules proposed by the Commission are ancillary to the Commission's general authority over Title II, III, and VI services because broadband Internet access affects the "economics" of those services is also unavailing. (Google Comments at 45.) By that logic, the Supreme Court could have simply held in *Southwestern Cable* that the Commission had plenary authority to regulate cable service since it unquestionably affected the economics of broadcast services. Yet nothing in the Court's ancillary authority decisions "even hints . . . that the Commission had plenary authority over cable" notwithstanding its effect on broadcast services. *Comcast*, 2010 WL 1286658, at *7; *NARUC v. FCC*, 533 F.2d 601, 612-13 (D.C. Cir. 1976) (Court did not "recognize[e] any sweeping authority over [cable television] as a whole"). Instead, the Court in each case engaged in a painstaking inquiry as to whether the particular regulation in question was necessary to carry out a responsibility expressly delegated to the Commission. If there were any doubt on that score, it was eliminated by the Court's decision in *Midwest Video II*, where the Court struck down the Commission's attempt to impose common carriage access obligations on cable operators, even though those regulations clearly had an effect on the economics of broadcasting and were intended to promote local-originated programming, one of the objectives of Commission broadcast regulation. Thus, Google's general invocation of Titles II, III, and VI fails to identify a specific substantive responsibility

expressly delegated to the Commission by the Act to which the proposed rules would be ancillary. Nor does it demonstrate with concrete evidence that the proposed rules are necessary to carry out any such assigned responsibility.

Some parties have suggested that, in the wake of the *Comcast* decision, the Commission lacks authority to implement key elements of its broadband agenda and that it therefore must “reclassify” broadband Internet access (at least in part) as a Title II telecommunications service. As discussed below, such reclassification would be both unlawful and harmful to consumers. But the premise of this argument is wrong as well. The *Comcast* decision is a straightforward application of the standard established by the Supreme Court and D.C. Circuit. It does not deprive the Commission of all authority over broadband, as various parties have claimed, but simply confirms that the Commission must link each proposed exercise of authority to the fulfillment of a statutory responsibility and provide concrete evidentiary support for any action that is taken.

The fact that the Commission did not comply with the governing legal standards in the *Comcast* case does not mean that the Commission is wholly without authority to act on any matters relating to broadband or Internet-based services. On the contrary, the Commission has direct authority to address any number of issues, such as universal service and spectrum reform. For example, while the language of section 254 is not a model of clarity, a number of parties have explained that the ambiguous terms of that section might fairly be read to give the Commission authority to provide universal service support for broadband deployment.⁹¹ In the context of universal service, moreover, the Commission’s authority is supplemented by section

⁹¹ See, e.g., AT&T Ex Parte, *The Federal Communications Commission Has Statutory Authority To Fund Universal Broadband Service Initiatives*, GN Docket No. 09-51, et al. at 1-5 (filed Jan. 29, 2010).

706(b). That section requires the Commission to “initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans” and, to the extent it finds such capabilities are not being deployed in a reasonable and timely fashion, directs the Commission to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment” 47 U.S.C. § 1302(b). As the National Broadband Plan concluded, while broadband has been deployed to most geographic areas of the nation and is in fact available to most Americans, there remain some limited areas where broadband is not yet available. Accordingly, while the Commission could not make a generalized finding that broadband is not being deployed, it could conclude that economic barriers are preventing deployment in certain limited areas. Under those circumstances, section 706(b) itself directs the Commission to take action to remove barriers to infrastructure investment, and targeted universal service support is one way that it might do so.

Likewise, the Commission previously has exercised its ancillary authority in connection with other broadband related issues, such as safeguarding consumer privacy and safety, and those actions have never been questioned. To take just one example, the Commission has exercised its ancillary authority to extend the CPNI protections of section 222 to interconnected VoIP services based on its findings that information about customers of telecommunications services would otherwise be unprotected to the extent they participated in calls with users of IP voice services, and the Commission accordingly would be unable to fulfill its statutory responsibility.⁹² Indeed, the D.C. Circuit itself provided a concrete example, noting that the Commission may well be able to invoke its ancillary authority to require certain information

⁹² Report and Order, *Telecommunications Carriers’ Use of Customer Proprietary Network Information and Other Customer Information*, 22 FCC Rcd 6927 (2007).

disclosure in order to fulfill its statutorily mandated responsibility to compile reports concerning broadband and other information services. *See Comcast*, 2010 WL 1286658, at **16-17.

B. Classifying Broadband Internet Access as a Common Carriage Service Under Title II Would Be Unlawful and Would Harm Consumers.

Presumably based on their own recognition that the Commission may not impose the sweeping rules proposed here under its ancillary authority, some proponents of those rules have begun to advocate that the Commission take the radical step of classifying broadband Internet access as a “telecommunications service” subject to common carriage regulation under Title II of the Communications Act – regulations designed for the very different context of the monopoly, telephone world of yesteryear.⁹³ Such proponents offer two distinct theories. First, they suggest that the Commission “reclassify” retail broadband Internet access services in whole or in part as Title II telecommunications services. Second, they separately argue that the Commission should require broadband Internet access providers to *unbundle* their retail services and offer separately the broadband transmission component to consumers as a common carrier service subject to Title II. These proponents further suggest that, under either theory, the Commission could, if it chose, selectively forbear (or not) from some Title II requirements, while leaving the core common carriage requirements in place.

These arguments are misplaced on each score, and are if anything even more legally untenable than efforts to base the sweeping proposed rules on the assertion of ancillary authority. To begin with, the issue of the classification of broadband Internet access was not included in the Commission’s NPRM in this proceeding and may not be considered here. In addition to this

⁹³ *See, e.g.*, Public Knowledge Comments at 20-21; Letter from Free Press to Julius Genachowski, Chairman, Federal Communications Commission, GN Docket No. 09-191, WC Docket No. 07-52, GN Docket No. 09-51 (Feb. 24, 2010); Reply Comments of Public Knowledge – NBP Notice #30, Docket Nos. 09-47, 09-51, 09-137 (filed Jan. 26, 2010) (“Public Knowledge Broadband Comments”).

procedural bar, each of the arguments made by the proponents is fatally flawed on the merits. First, there is no plausible basis to classify the integrated Internet access services sold to consumers today as anything other than “information services” that are exempt from Title II regulation under the terms of the Act. Such a classification would be contrary to the Act and repeated Commission precedents as affirmed by the Supreme Court. While proponents of Title II regulation argue that the facts have somehow changed to justify a different conclusion today, the opposite is true. Indeed, broadband Internet access services as provided today contain even more information service capabilities as part of the integrated whole. As to proponents’ second legal theory, the Commission lacks any authority to compel providers to unbundle their retail services and offer one component on a common carriage basis. Further, the minimum necessary factual predicate for any such compulsion – the presence of market power – is wholly lacking. Moreover, as discussed below, *see infra* Section V.C, the legal infirmities of proponents’ theories are magnified because they would present significant constitutional problems under both the Takings Clause of the Fifth Amendment and the First Amendment.

Even apart from the legal obstacles, the Commission should not bring broadband Internet access services under Title II because imposing outmoded monopoly-era telephone obligations such as price regulation, tariffing requirements, and unbundling obligations on broadband Internet access services would place a straightjacket on the Internet. The result would be reduced investment and innovation, lost jobs, and harm to the economy. Further, any change that would require broadband Internet access service providers to unbundle their retail services would involve a radical change in how they do business and have extraordinarily harmful consequences for consumers and for the continued development of the Internet. Among other things, individual consumers would be left to grapple with the confusion and burden inherent in

having to assemble themselves multiple components (*e.g.*, transmission, e-mail, storage, parental controls, and security) of what they correctly see as a single integrated service, undermining the Commission’s goals for increased adoption.

1. The Commission Has No Legal Basis To Classify Broadband Internet Access as a Common Carriage Service Under Title II or To Compel Broadband Providers to Make a Common Carriage Offering.

There can be no question that the finished, integrated broadband Internet access service offered to consumers is an information service. The Commission has previously concluded multiple times as a matter of statutory interpretation that retail broadband Internet access services offered to consumers are information services under the terms of the statute.⁹⁴ As the Supreme Court summarized in *Brand X*,

Cable modem service is an information service, the Commission reasoned, because it provides consumers with a comprehensive capability for manipulating information using the Internet via high-speed telecommunications. That service enables users, for example, to browse the World Wide Web, to transfer files from file archives available on the Internet via the “File Transfer Protocol,” and to access e-mail and Usenet newsgroups. Like other forms of Internet service, cable modem service also gives users access to the Domain Name System (DNS). DNS, among other things, matches the Web page addresses that end users type into their browsers (or “click” on) with the Internet Protocol (IP) addresses of the servers containing the Web pages the users wish to access.

545 U.S. at 987 (citations and footnote omitted). The Commission further concluded that, because the definitions of “telecommunications service” and “information service” focus on the “offering” being made to users, the classification of broadband Internet access “turn[ed] on the nature of the functions that the end user is offered” from the user’s point of view. *Cable Modem*

⁹⁴ See, *e.g.*, Report and Order and Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd 14853, ¶¶ 12-17 (2005) (“*Wireline Broadband Order*”); Declaratory Ruling, *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901, ¶¶ 40-41, 50-53 (2007) (“*Wireless Broadband Order*”); Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, 17 FCC Rcd 4798, ¶¶ 44, 52-55 (2002) (“*Cable Modem Order*”).

Order, 17 FCC Rcd at 4822-23 ¶ 38. The Commission found that, “[a]s currently provisioned, cable modem service is a *single, integrated service* that enables the subscriber to utilize Internet access service through a cable provider's facilities and to realize the benefits of a comprehensive service offering.” *Id.* (emphasis added).

The Supreme Court affirmed. *See Brand X*, 545 U.S. at 986-1003. Although some have suggested that the Court majority was skeptical of the Commission’s interpretation of the Act and affirmed only on the basis of deference owed to agency interpretations, the opposite is true. In reality, the Court was deeply skeptical of arguments made by some of the same parties as here that cable modem service could be deemed to include a common carrier telecommunications service. As the Supreme Court explained, “[i]t would, in fact, be odd to describe a car dealership as ‘offering’ consumers the car’s components in addition to the car itself,” and the same would be true of a reading of the Act under which cable modem providers “offer” the discrete transmission components of the “integrated finished” broadband Internet access service offered to consumers *Brand X*, 545 U.S. at 990; *see also id.* at 989, 990 (Commission’s interpretation of “offer” best reflected “common” and “ordinary” usage). The Court further expressed doubt that the Act “worked [the] abrupt shift in Commission policy” that would result from an interpretation under which an entity that uses telecommunications inputs would be offering a separate telecommunications service that would “entail mandatory common-carrier regulation of entities that the Commission never classified as ‘offerors’ of basic transmission services.” *Id.* at 994-95. Indeed, as the Court recognized, the ramifications of such an “abrupt shift” would be breathtakingly broad, as any entity that offered a service that incorporated transmission would, under that theory, be subject to archaic common carrier restrictions, including entities ranging from Internet backbone providers, to content delivery networks such as Akamai, to application

providers such as Google that integrate their own transmission into their services, and even device providers, such as the Kindle or other book readers that integrate transmission into the service sold to consumers.

Proponents of a Title II theory would have the Commission abandon all this precedent and reverse course. But the Commission has no basis to do so. Nothing about the statute has changed that would provide any justification for adopting an entirely new interpretation.⁹⁵ And as a factual matter, there can be no question that broadband Internet access continues to “combine[] the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications” and thus involves “generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.” *Cable Modem Order*, 17 FCC Rcd at 4822-23 ¶ 38; 47 U.S.C. § 153(20). Thus, retail broadband Internet access as provided to end users continues to fall squarely within the definition of an “information service.”

Public Knowledge’s only response is to assert that certain facts have changed such that broadband Internet access providers now offer two separate services to users. (Public Knowledge Broadband Comments at 8-9.) But that is wrong on many levels. As an initial matter, Public Knowledge, even while acknowledging that e-mail, web hosting, and access to newsgroups remain part of the service that broadband Internet access providers offer, asserts that consumers use them less because they are of less “value.” But Public Knowledge offers no

⁹⁵ Although an agency may be able in certain circumstances to change its interpretation of a statute, “[a]n agency interpretation of a relevant provision which conflicts with the agency’s earlier interpretation is entitled to considerably less deference than a consistently held agency view.” *INS v. Cardoza-Fonseca*, 480 U.S. 421, 447, n.30 (1987) (citing *Watt v. Alaska*, 451 U.S. 259, 273 (1981) and *General Electric v. Gilbert*, 429 U.S. 125, 143 (1976)); *Samaritan Hospital v. Shalala*, 508 U.S. 402, 417 (1993).

support for this conclusory assertion, and it in fact is false: millions of consumers continue to use those features of broadband Internet access service providers' offerings.

More importantly, Public Knowledge has the facts backward. Today, the lines between networks, application and content providers, and devices are blurring, and the distinction between "edge" and "network" providers is rapidly becoming outmoded and artificial. Providers of broadband Internet access today offer even *more* features that involve "generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." 47 U.S.C. § 153(20). In response to competitive pressures, service providers have integrated more and more information service capabilities into their retail offerings in order to deliver consumers greater value. For example, broadband Internet access services now routinely integrate a wide variety of features such as spam blocking, virus controls, parental controls, customized home pages, e-mail and photo storage, multiple e-mail addresses, and numerous others as part of their offerings.

The fact that so-called "edge providers" may also offer these features does not alter their character as "information services." Web-based email services existed at the time of the *Cable Modem Order* and were certainly prevalent in 2007 when the Commission determined that wireless broadband Internet access services are information services, but the Commission attributed no significance to this fact. To the contrary, the Commission concluded that Internet access services are integrated information services "regardless of whether subscribers use all of the functions provided as part of the service, such as e-mail or web-hosting, and regardless of whether every cable modem service provider offers each function that could be included in the service." *Cable Modem Order*, 17 FCC Rcd at 4822-23 ¶ 38. The same is true with respect to DNS – as the Commission found, DNS is an integrated part of broadband Internet access and fits

the definition of an information service. Public Knowledge’s observation that others such as Google also offer DNS does not alter that fact. It only confirms that the distinction between “network” and “edge” providers continues to erode. That erosion reinforces the fact that broadband Internet access as offered to end users is an integrated information service – it certainly provides no basis to erect separate regulatory silos as Public Knowledge advocates.

Perhaps recognizing that reclassifying the integrated retail broadband Internet access service as a Title II telecommunications service would be untenable, some regulatory proponents resort to arguing that the transmission component should be unbundled as a separate common carriage telecommunications service. As an initial matter, some of these parties have suggested that broadband providers could already be said to be offering a transmission service on common carriage terms because they make service broadly available and advertise transmission speeds and similar characteristics. (Public Knowledge Broadband Comments at 8-9) But their argument is incorrect. As discussed above, what providers offer voluntarily is a single integrated *information service*, not two separate services. Moreover, providers offer that service based on voluntary contractual terms and conditions that they are free to change at any time (subject to the terms of their contracts), and they are not bound to offer the same terms and conditions to all comers. And, while advertisements for broadband Internet access may address speed, they also widely tout other attributes, such as the number of free e-mail addresses and amount of free web storage included with the service. Thus, such advertisements reinforce that providers are offering a single integrated service with all of its capabilities.

As a result, the Commission would have to *compel* broadband network providers to unbundle their retail services and offer the transmission “component” of broadband Internet access as a separate telecommunications service subject to common carriage regulation. The

Commission’s power to compel an entity to act as a common carrier where that entity does not voluntarily choose to do so is limited, and those limits are grounded in fundamental concepts of property rights. Broadband networks are private property owned by private companies and built with shareholders’ investments. Just as the government generally cannot confiscate private property and hand it over to someone else, it generally cannot compel the owner of the property to make it available for the use of others.⁹⁶ To be sure, private property owners historically have taken on common carriage obligations in some contexts, typically situations in which they comply with common carriage requirements in exchange for a government granted monopoly and the assurance of a guaranteed return. But an agency’s ability to compel a party to provide service as a common carrier is necessarily limited.

As an initial matter, in order to compel a provider to dedicate its property to the use of others, at a minimum, an agency must have explicit statutory authority to do so. The courts have made clear that the Commission could not embark on such a course without a “clear warrant” from Congress, and general statutory provisions granting regulatory authority over an area do not suffice for this purpose.⁹⁷ Nothing in the Act provides the “clear warrant” expressly authorizing the Commission to compel providers to unbundle their information services into their component parts and to offer a separate transmission service as a common carriage telecommunications service under Title II. To the contrary, as noted above, the definition of “information services” in the Act expressly recognizes that those services will be provided “via telecommunications, and prohibits the Commission from extending Title II regulation to those services. Likewise, the definition of “telecommunications services” subject to Title II’s

⁹⁶ See generally *Ruckelshaus v. Monsanto*, 467 U.S. 986 (1984) (holding that EPA disclosure to competitors of certain proprietary data submitted by a party could constitute a taking where such disclosure interfered with reasonable investment-backed expectations).

⁹⁷ *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441, 1446 (D.C. Cir. 1994).

requirements includes only those services that an entity “offer[s]” to the public generally. The term “offers” indicates a voluntary undertaking, not a grant of authority to compel an entity to provide any service of the Commission’s choosing on common carrier terms. And, in any event, a definition is no more a grant of authority than is a policy provision. As a result, because it lacks any express grant of statutory authority to compel providers to unbundle their information service offerings, the Commission would be left to fall back on its ancillary authority. But not only is there no plausible argument that unbundling retail information service offerings is reasonably ancillary to any express grant of statutory authority, it also would be flatly inconsistent with the Act for the reasons described above.

Indeed, even in the seemingly easier case where a provider already offered a separate transmission service, albeit under private contract, the case law has established that, absent a voluntary undertaking, the Commission may not impose an obligation to provide a service on a common carrier basis through “legal compulsion” without a demonstration that the service provider has substantial market power. *See, e.g., Virgin Islands Tel. Corp. v. FCC*, 198 F.3d 921, 925-27 (D.C. Cir. 1999); *National Ass’n of Regulatory Utility Commissioners v. FCC*, 525 F.2d 630, 641-42 (D.C. Cir. 1976); *AT&T Submarine Systems, Inc.*, 13 F.C.C.R. 21,585, 21,588-589 (1998) (the decision to impose common carrier treatment depends on whether “the public interest . . . require[s] the carrier to be legally compelled to serve the public indifferently” because the carrier “has sufficient market power”); *Cable & Wireless, PLC*, 12 F.C.C.R. 8516, 8521-22 (1997).

As discussed above, no such market power exists in the broadband marketplace. To the contrary, the Commission previously concluded that broadband Internet access services should be free of common carriage and other Title II regulation based on findings that these services are

developing in a competitive manner, that the broadband marketplace is rapidly evolving, and that there are no signs of so-called “market failure.”⁹⁸ The Commission’s expectations in adopting this approach have been more than fulfilled, with broadband competition steadily increasing as traditional telephone companies, cable operators, and wireless companies have continued to make massive investments in new technologies such as fiber-to-the-premises, DOCSIS 3.0, and 4G wireless services, including LTE and WiMax. Wireless providers are moving aggressively to deploy 4G services, with higher speeds and expanded capabilities, that will provide a true third (and fourth, fifth, and sixth) broadband pipe into the home and result in even greater cross-platform competition.

Thus, the broadband marketplace today is unlike what the Commission faced in the *Computer Inquiries* precedents to which some proponents point. In that context, the Commission confronted a bottleneck legacy monopoly in which each home was served by a single wire. The Commission concluded that the consequent market power justified requiring the separate provision of a transport service over that single pipe that others could purchase so that they could offer competing services. In the broadband marketplace, however, there are multiple platforms and competitors.

Indeed, the mere fact that the Commission would have to compel so many competing telephone company, cable, mobile and fixed wireless, and satellite providers to each unbundle

⁹⁸ See, e.g., *Wireline Broadband Order*, 20 FCC Rcd at 14877-78 ¶ 44; *Cable Modem Order*, 17 FCC Rcd at 4825 ¶¶ 44, 52-55; Memorandum Opinion and Order, *United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service As an Information Service*, 21 FCC Rcd 13281 (2006); Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978, 17141-42 ¶ 272 (2003); Memorandum Opinion and Order, *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c)*, 19 FCC Rcd 21496, 21504 ¶ 19 (2004) (“*Verizon Forbearance Order*”).

their services to offer a separate common carriage transmission service in and of itself demonstrates that there is no bottleneck or market failure. Thus, the Commission cannot compel broadband Internet access service providers to offer a separate transmission service on a common carriage basis.

Finally, as noted above, the Commission could not, under any theory, “reclassify” broadband Internet access service as a common carriage service under Title II in the current proceeding. It did not provide notice of such a possibility in the NPRM in this proceeding. Nor could such a radical change be viewed as a logical outgrowth of the NPRM. As a result, aside from the many underlying substantive problems with proceeding in that manner, in order to satisfy the APA’s procedural requirements the Commission would have to issue a further NPRM providing appropriate notice through publication in the Federal Register and a full opportunity to address the sweeping ramifications of any such action. *See Sprint Corp. v. FCC*, 315 F.3d 369, 374-77 (D.C. Cir. 2003) (Commission’s failure to issue an NPRM providing notice of potential change in rules violated APA). The fact that this issue may be discussed in some of the comments does not change the analysis: the courts have made clear that the Commission itself must provide notice concerning the substance of any policy or rule that it is considering, so that all affected parties are fully informed. *See Shell Oil Co. v. EPA*, 950 F.2d 741, 751 (D.C. Cir. 1991) (“Even if the [challenged] rules had been widely anticipated, comments by members of the public would not in themselves constitute adequate notice. Under the standards of the APA, ‘notice must come—if at all—from the agency.’”) (*quoting Smaller Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983)).

2. Classification of Broadband Internet Access as a Title II Telecommunications Service Would Have Enormously Harmful Consequences Across the Internet Ecosystem.

Although proponents of Title II classification for broadband Internet access suggest that it would not cause significant harm, the opposite is true. As a general matter, for the reasons described above, imposing common carriage obligations such as price regulation on broadband Internet access services would, much like the proposed rules, result in reduced investment and innovation, lost jobs, and harm to the economy. Indeed, if anything, these effects would be even worse under Title II regulation, since that would bring with it a whole set of stifling regulations beyond those in the proposed rules, including tariffing requirements and unbundling obligations. For example, if providers were subject to the complexity and uncertainty of price regulation and tariffing requirements, existing and new pricing models would be called into question, leaving parties mired in protracted regulatory disputes and reducing the incentive and ability to create innovative pricing and business models that benefit consumers. Other examples of the complexities, uncertainties, and absurdities created by Title II regulation abound. (Katz Reply Decl. ¶¶ 72-78.)

Moreover, “unbundling” retail broadband Internet access as some parties propose and requiring a stand alone transmission service to be offered as a Title II common carriage service would fundamentally alter how broadband providers offer their services in a manner that would undermine investment incentives, raise costs, and lead to customer confusion. (Katz Reply Decl. ¶ 78.) Even regulatory proponents concede that e-mail, portals, and other features that today are part and parcel of the finished service that broadband Internet access providers offer to end users are in fact information services. Thus, their proposal would effectively require that broadband providers unbundle their retail offerings and offer the different components of what is now an

integrated service separately. Doing so would be a radical change from the perspective of both providers and consumers.

For providers, such a regime would, among other things, require revamping their billing, ordering, and other systems and altering entirely how they market their services. The result would be added complexity and costs that would be borne by consumers. Moreover, instead of advertising to consumers that they could buy a single service for one price that included various features, broadband providers would have to market separate offerings – at the very least, a broadband transmission service and a separate set of information service features. In the case of wireless broadband services, the complexity would be even greater – it is unclear, for example, what role the mobile device would play under this reclassification because a device generally needs to be optimized for the access network and the services that are provided over that network. Would it be deemed discriminatory under the common carriage rules if a particular application (*e.g.*, Google for search or for maps or Skype for VoIP calls) was featured on a smart phone's initial menu and therefore was more easily accessible or was the only such available application for a specific device?

From a consumer's perspective, the result would be increased complexity, confusion, higher prices, and added transaction costs – instead of buying the single integrated service as they do today, they suddenly would have to figure out the distinction between a transmission service and other offerings, and then order multiple products just to get back to what they can obtain today in one simple transaction. This unbundled approach would move precisely in the opposite direction from where the market has gone. Driven by consumer preferences, providers have increasingly moved toward integrated Internet access service offerings because of their relative simplicity. Competition also has driven providers to offer more features, whether by

increasing the number of personal e-mail addresses, providing web and photo storage, more robust parental controls, or other options. Consumers would lose this value as providers could no longer differentiate their services by introducing such features without a separate additional charge. And the added cost to providers of administering these kinds of disaggregated offerings would add costs and result in higher prices, in addition to the higher transaction costs that consumers themselves would incur in order to research and assemble the component parts of what they see as an integrated offering. The added customer inconvenience, confusion, and cost from unbundling what is naturally an integrated product offering would undermine the Commission's goal in the *National Broadband Plan* of increasing adoption.

Proponents of Title II regulation essentially concede that untrammelled application of Title II to broadband would be catastrophic, but assert that the Commission can avoid the harmful consequences through forbearance. (Public Knowledge Broadband Comments at 1-2.) But the Commission has already considered and rejected the argument that the availability of forbearance mitigates the harm from imposing Title II constraints on broadband. As it explained, “[n]otwithstanding the possibility of forbearance, we are concerned that including information service providers within the ‘telecommunications carrier’ classification would effectively impose a presumption in favor of Title II regulation of such providers. Such a presumption would be inconsistent with the deregulatory and procompetitive goals of the 1996 Act. In addition, uncertainty about whether the Commission would forbear from applying specific provisions could chill innovation.”⁹⁹

Moreover, the admission that the criteria for forbearance would be satisfied undermines the very rationale for mandating common carrier obligations in the first place. The statutory

⁹⁹ Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11520, 11522-23 ¶¶ 46-47 (1998) (“*Universal Service Report*”).

forbearance criteria rest at least in part on a showing that the existence of competition will ensure that forbearance will not harm consumers. Thus, for example, tariffing requirements are unnecessary (and would be the legitimate subject of forbearance) because competition disciplines prices and eliminates the need for such regulation. But of course that same competition eliminates the need for imposing Title II regulation in the first place since the rationale for such regulation is the presence of dominant carriers with market power.

In any case, as the Commission's experience with forbearance demonstrates, this approach would cause massive uncertainty and litigation, leaving all parts of the Internet ecosystem confused about the path that future Commission regulators might follow. That kind of ambiguity would freeze innovation in place and discourage investment at precisely the time when economic growth is critical and delivery of broadband to all Americans is a national priority. As one analyst concluded, "[i]n the face of this uncertainty [caused by reclassification], capital investment – and, therefore, employment in the sector – would decline, and perhaps precipitously. . . . Telecom and cable operators have privately indicated that a Title II designation would result in radical downsizing of their broadband investment plans to account for the enormous regulatory uncertainty it would introduce."¹⁰⁰

Finally, any theory under which broadband Internet access providers were subject to Title II could be applied across the Internet. While the parties proposing Title II regulation generally say that – for now -- they would apply this treatment only to local broadband Internet access connections, the theory they rely upon could be applied just as readily to providers across the Internet ecosystem. The Commission recognized this very danger more than a decade ago when it warned that, if it “interpreted the statute as breaking down the distinction between information

¹⁰⁰ Craig Moffett, *et al.*, Bernstein Research, *Weekend Media Blast: Internet En-title-ment... The Nuclear Option*, at 2 (Apr. 16, 2010); *see also* Katz Reply Decl. ¶ 74.

services and telecommunications services, so that some information services were classed as telecommunications services, it would be difficult to devise a sustainable rationale under which all, or essentially all, information services did not fall into the telecommunications service category.” *Universal Service Report*, 13 FCC Rcd at 11529 ¶ 57.

As the statutory definition makes clear, *every* information service is provided “via telecommunications” and therefore has a transport component. If, as Public Knowledge argues, an information service provider was also offering a telecommunications service anytime that the information service “components” could be unbundled and provided separately, then numerous actors in the Internet ecosystem would suddenly find themselves subject to Title II common carriage regulation. That would be true even if they did not themselves provide a transmission component since non-facilities based resellers have long been subject to Title II regulation.

Thus, as noted above, common carriage regulation could readily be applied under the proponents’ theory to cut a wide swath through the Internet. Providers of VoIP and similar services such as Vonage, Skype, and Google Voice would be treated identically to traditional long-distance carriers. Internet backbone providers and content delivery networks have a transport component of their services that would qualify as a separate telecommunications service. Thus, under the proponents’ theory, peering and transit arrangements – which have worked well without any regulation – could be subjected to price regulation under Title II. Content providers such as Google that have their own extensive networks to help deliver content and advertising to users and/or to transmit (or arrange to transmit) information to and from cloud computing servers would likewise be providing a telecommunications service subject to Title II under the proponents’ theory. In short, virtually no corner of the Internet would be safe from the

reach of Title II common carriage regulation and the consequent harms to investment, jobs, and economic growth.

Moreover, if the Title II classification were not extended more broadly, it would not accomplish the stated goals of the proposed net neutrality rules. Subjecting only the underlying transmission service to archaic common carrier regulations would do nothing to ensure that consumers could continue to access any content, service or application of their choice over their Internet access service. Under that regime, the Internet access provider – like all other application, portal or other content or service providers – would remain free to employ capabilities above the basic transmission layer to restrict access or to enhance service quality for only some content, including by engaging in activities that the proposed rules are ostensibly intended to prohibit. For example, any ISP utilizing a broadband provider’s common carriage transmission service (whether or not affiliated with the broadband provider) still could block access to particular sites through its DNS service – which even proponents of net regulation concede is an information service – by “blackholing” a site so that its domain name was not translated to the correct IP address (*e.g.*, if a user typed in “www.espn.com,” the DNS server would not translate that into the actual IP address for that site). Of course, that is merely one example, since an ISP could do likewise through other capabilities above the transmission layer. In addition, the Internet service provider could choose to cache only selected content and thereby enhance the speed with which users could access that selected content. As a result, the Commission would still have to invoke ancillary authority to impose obligations on the information service components of Internet access service in order for its proposed rules to have the intended effects, and imposing common carriage obligations would amount to nothing more than regulation for regulation’s sake.

C. Rules Such as Those Proposed Here Would Raise Significant Constitutional Problems That Further Limit the Commission’s Authority.

Whether the Commission tried to adopt rules pursuant to a theory of ancillary authority or attempted to impose Title II common carriage regulation on broadband Internet access, its action would raise significant constitutional issues. As Verizon explained, an agency may not interpret an ambiguous statute in a manner that imposes rules raising substantial constitutional problems. (Verizon Comments at 109-110.) Courts have applied this principle of constitutional avoidance to hold that agencies lack authority to promulgate rules that raise questions under the First Amendment or a substantial takings issue under the Fifth Amendment. *See, e.g., Edward J. DeBartolo Corp. v. Florida Gulf Coast Bldg. & Constr. Trades Council*, 485 U.S. 568 (1988); *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441 (D.C. Cir. 1994). The proposed rules would raise issues on both fronts, providing further reason why the Commission does not have authority to impose them.

1. The Commission’s Proposed Rules Would Unconstitutionally Restrict Broadband Providers’ Speech in Violation of the First Amendment.

As explained in the opening comments, the Commission’s proposed “net neutrality” rules violate the First Amendment and cannot be sustained under any level of constitutional scrutiny. The Commission’s proposed path would regulate broadband providers’ (and their partners’) speech both directly and indirectly, and neither the Commission nor the proponents of regulation has provided any evidence of a government interest that would justify such restrictions. Proponents of net regulation fundamentally misconstrue the purpose of the First Amendment, which, as the Supreme Court recently reiterated, is to restrict *government* limitations on private speech, not private speech itself. In fact, even since opening comments were filed, the illegality of the proposed rules has become more clear in light of the Supreme Court’s recent decision in

Citizens United v. FEC, 130 S. Ct. 876 (2010). In light of the constitutional infirmities of the proposed rules, the Commission lacks authority to adopt them.

a) The Proposed Rules Would Infringe on Broadband Providers' Right of Speech.

The proposed rules (or Title II common carriage obligations) would restrict broadband providers' speech in multiple ways. First, the proposed rules would restrict the First Amendment rights of broadband providers (and their partners) in order to amplify the expression of others. Proponents of the rules seek to defend those rules on that ground, arguing that they further "First Amendment values"¹⁰¹ by ensuring that all users have the ability to speak to the same extent. These parties fundamentally misconstrue the purpose and effect of the First Amendment. As the Supreme Court recently reiterated in *Citizens United*, the First Amendment limits *government* regulation of private speech.¹⁰² It does not empower the government to restrict private speech, even if the government suggests that such a course would enhance the relative ability of others to speak. Indeed, "[t]he concept that government may restrict the speech of some elements of our society in order to enhance the relative voice of others is wholly foreign to the First Amendment."¹⁰³

The Supreme Court's recent decision in *Citizens United* confirms that, far from promoting First Amendment values, government regulation that restricts speech by some in order

¹⁰¹ See, e.g., Free Press Comments at 134-41 (arguing that "A Network Neutrality Non-Discrimination Principle Would Promote First Amendment Values"); Google Comments at 49-50 (arguing that "First Amendment Values of Free Expression Also Support the Commission's Authority"); Open Internet Coalition Comments at 10-12 (arguing that "[m]aintaining an open Internet is crucial to all users in safeguarding and further advancing First Amendment values").

¹⁰² See, e.g., *Citizens United*, 130 S. Ct. 876 at 882 (The First Amendment is "[p]remised on mistrust of *governmental* power." (emphasis added)).

¹⁰³ *Buckley v. Valeo*, 424 U.S. 1, 48-49 (1976) (per curiam); see *Citizens United*, 130 S. Ct. at 921 (Roberts, C.J., concurring).

to promote the speech of others contradicts the First Amendment. The Court explained that its decision in *Buckley v. Valeo* “rejected the premise that the Government has an interest ‘in equalizing the relative ability of individuals and groups’” to have their voices heard.¹⁰⁴ The Court in *Citizens United* accordingly rejected as incompatible with the First Amendment an argument that certain “media corporations could have their voices diminished to put them on par with other media entities.”¹⁰⁵

As Verizon explained in its opening comments, government action is also incompatible with the First Amendment when it compels a speaker to carry the speech of others when that speaker’s judgment dictates otherwise, including through a compelled common carriage obligation. That proposition was established by the Supreme Court in its decision in *Miami Herald Pub. Co. v. Tornillo*,¹⁰⁶ and affirmed thereafter.¹⁰⁷ As Judge Kavanaugh recently observed, “the Government cannot compel video programming distributors to operate like ‘dumb pipes’ or ‘common carriers’ that exercise no editorial control.” *Cablevision Systems Corp. v. FCC*, 597 F.3d 1306, 1322 (D.C. Cir. 2010) (Kavanaugh, J., dissenting)

The Commission’s proposed regulations run afoul of these basic First Amendment principles. There can be no question that broadband Internet providers engage in protected speech by providing original Internet content on their own and in conjunction with partners, and

¹⁰⁴ *Citizens United*, 130 S. Ct. at 904 (quoting *Buckley*, 424 U.S. at 48).

¹⁰⁵ *Id.* at 905; *see id.* at 899 (“By taking the right to speak from some and giving it to others, the Government deprives the disadvantaged person or class of the right to use speech to strive to establish worth, standing, and respect of the speaker’s voice. The Government may not by these means deprive the public of the right and privilege to determine for itself what speech and speakers are worthy of consideration.”).

¹⁰⁶ 418 U.S. 241, 256-57 (1974).

¹⁰⁷ *See Pacific Gas & Elec. Co. v. Public Util. Comm’n of Cal.*, 475 U.S. 1, 6, 13-15 (1986) (plurality opinion) (invalidating under First Amendment Commission rule that required privately owned utility company to permit third parties to “use the extra space in the billing envelopes to raise funds and to communicate with ratepayers”).

by featuring selected content on their networks.¹⁰⁸ For example, broadband providers provide video programming to customers, like Verizon’s FiOS widgets. Providers also have created app stores that they take great care to manage, exercising discretion over the applications they make available. The Commission’s proposed rules, however, would require broadband Internet providers to give every speaker the same relative voice on the Internet and would compel providers to carry the speech of others to the same extent they carry their own. As the Court’s decision in *Citizens United* confirms, that goal is inconsistent with the First Amendment. Such regulation would contradict, rather than further, First Amendment “values.”

Second, the proposed rules would infringe on First Amendment rights by making speaker-based distinctions. As Verizon has previously explained, and the Supreme Court has on multiple occasions held, the First Amendment generally prohibits regulations that treat some speakers less favorably than others.¹⁰⁹ The Court reaffirmed this basic First Amendment principle in *Citizens United*, where it explicitly rejected a rule that “would allow a conglomerate that owns both a media business and an unrelated business to influence or control the media in order to advance its overall business interest” but “[a]t the same time” would forbid “some other corporation, with an identical business interest but no media outlet in its ownership structure,” from “speak[ing] or inform[ing] the public about the same issue.”¹¹⁰

¹⁰⁸ *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 636 (1994) (*Turner I*) (“Through original programming or by exercising editorial discretion over which stations or programs to include in its repertoire, cable programmers and operators see[k] to communicate messages on a wide variety of topics and in a wide variety of formats.”).

¹⁰⁹ See, e.g., *United States v. Playboy Entm’t Group, Inc.*, 529 U.S. 803, 812 (2000) (“Laws designed or intended to suppress or restrict the expression of specific speakers contradict basic First Amendment principles.”); *Minneapolis Star & Tribune Co. v. Minn. Comm’r of Revenue*, 460 U.S. 575, 577, 592-93 (1983) (“A tax that . . . targets individual publications within the press, places a heavy burden on the State to justify its action.”).

¹¹⁰ *Citizens United*, 130 S. Ct. at 906.

The Commission’s proposed regulations implement precisely that kind of prohibited, speaker-based distinction. The rules as proposed limit the speech only of network operators providing broadband Internet access services (and their prospective content partners), and not other players in the Internet ecosystem, such as Google, Akamai, and Amazon, even though those providers have a similar capacity to impact consumers’ Internet experience. *Citizens United* confirms that this “differential treatment cannot be squared with the First Amendment.”¹¹¹

Third, the proposed rules raise First Amendment problems because they would deprive providers of revenue, impose additional costs on speech, and limit the audience to which providers could speak.¹¹² The Supreme Court’s recent decision in *Citizens United* reaffirmed that such regulation is subject to First Amendment scrutiny. The Court explained that it will not sustain laws that “impos[e] a burden [on speech] by impounding proceeds on receipts or royalties” from that speech.¹¹³ In addition, the *Citizens United* Court rejected a Government-imposed system of speech that allows speakers to express themselves only through a format that is “expensive to administer.”¹¹⁴ And the Court held that laws are subject to First Amendment

¹¹¹ *Id.*; see also *Cablevision Corp.*, 597 F.3d at 1326 (Kavanaugh, J., dissenting) (program access rule violated First Amendment in part because it discriminated “among similarly situated video programming distributors and video programming networks”).

¹¹² See, e.g., *Minneapolis Star & Tribune Co. v. Minn. Comm’r of Revenue*, 460 U.S. 575, 577, 592-93 (1983) (invalidating “‘use tax’ on the cost of paper and ink products consumed in the production of a publication”); *Miami Herald Pub. Co. v. Tornillo*, 418 U.S. 241, 256-57 (1974) (invalidating statute imposing additional “cost in printing and composing time and materials”); *Grosjean v. Am. Press Co.*, 297 U.S. 233, 244 (1936) (invalidating tax on newspaper advertisements).

¹¹³ *Citizens United*, 130 S. Ct. at 896 (citing *Simon & Schuster, Inc. v. Members of N.Y. State Crime Victims Bd.*, 502 U.S. 105, 108 (1991)).

¹¹⁴ *Id.* at 897.

scrutiny when they “reduce the quantity of expression by restricting . . . the size of the audience reached.”¹¹⁵

As explained in the opening comments, the Commission’s proposed regulations likely would have each of those effects. Broadband networks are the microphones over which providers speak, and the proposed regulations limit the reach of these networks by increasing their cost and risk and thus effectively limit the available pool of listeners. In fact, the regulations could deprive broadband providers of sources of revenue, such as income from differentiated service offerings featuring their own content or that of partners, which would be similar in effect to impounding the proceeds of speech. The rules also would impose additional costs on the maintenance of broadband networks, thus imposing an expensive-to-administer framework. For example, the rules could require providers to devote increasing portions of their network capacity to others’ speech, thereby limiting providers’ ability to offer their own “managed” or “specialized” services over the networks unless providers expand network capacity. And because the proposed rules could have both of those effects, they could limit providers’ ability to expand their broadband service, thereby limiting the audience that providers can reach. As the Court’s decision in *Citizens United* confirms, such regulations must be subject to, and cannot be sustained under, First Amendment scrutiny.

Fourth, the proposed regulations would be constitutionally problematic to the extent they effectively required broadband providers to seek Commission permission to speak (*e.g.*, if they needed to seek approval before offering a particular managed service), or if they needed to confirm their ability to engage in network management practices that may have the effect of

¹¹⁵ *Id.* at 898; *see also Time Warner Entm’t Co. v. FCC*, 93 F.3d 957, 979 (D.C. Cir. 1996) (“To be sure, because the ability to enter into exclusive contracts could create economic incentives to invest in the development of new programming, prohibiting such contracts might result in reduced programming – that is, less speech.”).

limiting certain content. *Citizens United* also clarifies that the First Amendment prohibits the Government from adopting regulations that are so vague or complicated that they effectively require an organization to get an agency’s permission to speak. The Court in that case considered the facial validity of the challenged campaign-finance law because it recognized that the complexity and uncertainty of the FEC’s regulations governing speech in that context had created a situation in which “a speaker who wants to avoid threats of . . . liability and the heavy costs of defending against FEC enforcement must ask a governmental agency for prior permission to speak.”¹¹⁶ The Court concluded that those regulations functioned as “the equivalent of prior restraint by giving the [Commission] power analogous to licensing laws implemented in 16th- and 17th-century England, laws and governmental practices of the sort that the First Amendment was drawn to prohibit.”¹¹⁷

The Commission’s proposed rules in this case raise concerns that mirror those at issue in *Citizens United*, and would result in the same chilling of speech the Court rejected in that case. If the Commission’s rules, for instance, were to create a complex and uncertain definition of what constitutes “reasonable” network management practices, they could effectively require broadband service providers to ask the Commission for permission before engaging in any network management practice. The Commission’s proposed net regulations are particularly problematic in this regard because they attempt to regulate technology that is constantly evolving and thus will result in persistent uncertainty as to the lawfulness of providers’ network activities.¹¹⁸ The “interpretation process” required by such rules will “create an inevitable,

¹¹⁶ 130 S. Ct. at 895.

¹¹⁷ *Id.* at 896.

¹¹⁸ *Cf. id.* at 891 (explaining that the Court “must decline to draw, and then redraw, constitutional lines based on the particular media or technology used to disseminate political speech from a particular speaker” and recognizing that any types of differentiations the Court

pervasive, and serious risk of chilling protected speech” incompatible with the First Amendment.¹¹⁹

b) The Proponents Of Net Regulation Have Offered No Justification That Could Withstand First Amendment Scrutiny.

Proponents of net regulation have not identified any problem that justifies the proposed regulations and restriction on broadband providers’ speech. As Judge Kavanaugh recently explained, the courts that have upheld “forced-carriage” and “forced-sharing” mandates on cable operators and programmers “were careful to explain . . . that the restrictions on the editorial and speech rights of cable operators and programmers were permissible on their face only because of the ‘bottleneck monopoly power exercised by cable operators.’” *Cablevision Systems Corp.*, 597 F.3d at 1315 (Kavanaugh, J., dissenting). As discussed above, however, regulatory proponents have provided no evidence of a bottleneck here. That lack of evidence is unsurprising; as explained in the original comments, the Commission and the federal courts have repeatedly recognized that broadband services are subject to strong and growing competition. Broadband providers today provide traditional Internet access services that offer subscribers access to all lawful content and have strong economic incentives to continue to do so.

Furthermore, even assuming the Commission could point to an actual harm the proposed rules are intended to address, the rules would violate the First Amendment because they are not narrowly tailored to address any purported threat—such as the alleged threat to maintaining the open Internet.¹²⁰ As explained in the opening comments, the Commission has available to it

might make among different types of speech “might soon prove to be irrelevant or outdated by technologies that are in rapid flux”).

¹¹⁹ *Id.*

¹²⁰ *See Citizens United*, 130 S. Ct. at 911 (even if “a problem exists[,] . . . [the Government] may not choose an unconstitutional remedy”).

significantly less restrictive and less discriminatory ways to achieve that goal. For example, the Commission could encourage the development of industry standards, self-regulatory codes, and best practices to promote transparency in the services offered by providers throughout the Internet ecosystem, including the providers of networks, applications, and devices. Such a focus on increased transparency would facilitate consumers' informed choices and deter providers from engaging in any anti-consumer conduct, which would risk reputational harm and additional regulation. Given that less-restrictive alternative, the significant limitations on speech currently proposed cannot be sustained.

Regulatory proponents are left to reach back to the outmoded analysis in *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969), apparently on the theory that the Internet is analogous to broadcast television and thus requires a modified First Amendment analysis.¹²¹ But, as the Supreme Court has observed, the factors on which that decision was based – “the history of extensive Government regulation of the broadcast medium; the scarcity of available frequencies at its inception; and its ‘invasive’ nature” are “not present in cyberspace.”¹²² Most critically, regulation in the broadcast context “rests upon the unique physical limitations of the broadcast medium” – that there are “more would-be broadcasters than frequencies available in the electromagnetic spectrum.”¹²³ That “inherent physical limitation on the number of speakers who [could] use the broadcast medium” is “thought to require some adjustment in traditional First Amendment analysis to permit the Government to place limited content restraints, and impose certain affirmative obligations, on broadcast licensees.”¹²⁴ The broadcast cases are

¹²¹ See, e.g., Google Comments at 49-50; Public Interest Advocates Comments at 3.

¹²² *Reno v. American Civil Liberties Union*, 521 U.S. 844, 868 (1997) (citations omitted).

¹²³ *Turner I*, 512 U.S. at 637.

¹²⁴ *Id.* at 638.

inapposite in the present context because there is no “inherent physical limitation” on the number of speakers on the Internet.

Indeed, the Court in *Turner* expressly rejected the argument that the broadcast cases could be extended to circumstances where there is not an inherent physical limitation, but simply an alleged market limitation. It specifically explained that “the special physical characteristics of broadcast transmission, not the economic characteristics of the broadcast market, are what underlies our broadcast jurisprudence.”¹²⁵ And it added that “the mere assertion of dysfunction or failure in a speech market, without more, is not sufficient to shield a speech regulation from the First Amendment standards applicable to nonbroadcast media.”¹²⁶ The broadcast television analysis, therefore, has no relevance to the Commission’s proposed rules for governing the Internet.

2. The Commission Also Lacks Authority To Adopt the Proposed Rules or To Compel Providers To Offer Broadband Internet Access on a Common Carriage Basis Because Doing So Would Result in an Uncompensated Taking.

As Verizon explained in its opening comments, because the proposed rules would require network operators to dedicate their network facilities to the use of others on terms to which the operators would not agree, they would take private property. The Commission lacks authority to engage in such a taking because the Act contains no express authority for the Commission to do so or any provision for just compensation. (Verizon Comments at 119-23.) The same analysis would apply to compelled common carriage. Although private property owners historically have taken on common carriage obligations voluntarily in certain contexts, those typically have involved situations in which the owner had market power and was given a government granted monopoly in exchange for the assurance of a guaranteed return. It is quite another thing to

¹²⁵ *Id.* at 640.

¹²⁶ *Id.*

compel network owners to make their facilities available for the use of others on a common carriage basis, especially after inducing the investment necessary to deploy those facilities by removing regulatory obligations and without any provision for just compensation in return. Just as the government generally cannot confiscate private property and hand it over to someone else, it generally cannot compel the owner of the property to make it available for the use of others, particularly where, as here, network providers have invested heavily in reliance on the current regime.¹²⁷

Ultimately, whether using ancillary authority or Title II, the Commission cannot escape the fact that nothing in the Act expressly directs the Commission to impose the proposed rules or to compel the offering of broadband Internet access on a common carriage basis. In the absence of such express direction, the Commission lacks authority to adopt rules that would result in a taking, or a substantial risk of a taking in an identifiable class of cases. Congress has *exclusive* power to appropriate funds from the Treasury, and the Commission’s general authority under the Communications Act cannot be construed as a delegation to exercise discretion in a way that would “strike a blow at the power of the purse.”¹²⁸

¹²⁷ See, e.g., *Ruckelshaus v. Monsanto*, 467 U.S. 986 (1984) (holding that EPA disclosure to competitors of certain proprietary data submitted by a party could constitute a taking where such disclosure interfered with reasonable investment-backed expectations).

¹²⁸ *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441, 1445 (D.C. Cir. 1994) (quoting *NBH Land Co. v. United States*, 576 F.2d 317, 319 (Ct. Cl. 1978)) (internal quotations omitted); see also *Ramirez de Arellano v. Weinberger*, 745 F.2d 1500, 1510 (D.C. Cir. 1984) (en banc) (“When there is no authorization by an act of Congress or the Constitution for the Executive to take private property, an effective taking by the Executive is unlawful because it usurps Congress’s constitutionally granted powers of lawmaking and appropriation.”), *overturned on other grounds*, 471 U.S. 1113 (1985).

D. Imposing Rules Such as Those Proposed Here Also Would Be Arbitrary And Capricious.

Even if the Commission had the legal authority to adopt the proposed rules as a statutory matter, exercising that authority here would be arbitrary and capricious. As Verizon and others have explained, the Commission has repeatedly concluded that regulation of broadband Internet access services would be unnecessary and unwise. (Verizon Comments at 123-129; AT&T Comments at 223-26.) The Commission has no reasoned basis to upend these prior precedents. In addition to the fact that, as discussed above, the agency has no basis to change its interpretation of the Act to justify regulation of broadband Internet access, even as to changes in policy, an agency must provide a “detailed justification” when “its new policy rests upon factual findings that contradict those which underlay its prior policy[,] or when its prior policy has engendered serious reliance interests that must be taken into account.” *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009).

Both of those factors would apply here. In its repeated orders determining not to impose common carriage and other Title II regulation on broadband Internet access services, the Commission found that the market was evolving rapidly to meet consumer demand and increasingly competitive, with no sign of “market failure.”¹²⁹ Nothing in the record here would provide a basis to make a contradictory finding today. In fact, the record shows that competition in the broadband marketplace has evolved as the Commission predicted, and the emergence of 4G wireless services promises to bring increased cross-platform competition. The Commission

¹²⁹ See, e.g., *Wireline Broadband Order*, 20 FCC Rcd 14877-78 ¶¶ 44, 47; *Cable Modem Order*, 17 FCC Rcd 4828-31 ¶¶ 44, 52-55; *Triennial Review Order*, 18 FCC Rcd at 17141-42, ¶ 272; *Verizon Forbearance Order*, 19 FCC Rcd at 21504 ¶ 19; Memorandum Opinion and Order, *United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service As an Information Service*, 21 FCC Rcd 13281 (2006).

has not conducted any market analysis that would even begin to demonstrate market power, and no regulatory proponent has offered any evidence in support of such a showing. Moreover, the Commission's deregulatory policy clearly has "engendered serious reliance interests" in the form of increased investments that were premised on, among other things, the unrestricted ability to offer managed and specialized services in addition to traditional Internet access. The Commission offers no reasoned basis for undermining that reliance, particularly given the absence of any evidence of an actual problem that the proposed regulations are needed to solve.

Any Commission decision to extend rules to wireless services would be particularly arbitrary. (*See, e.g.*, Verizon Comments at 127-29; AT&T Comments at 231-35; CTIA Comments at 8-22.) The record contains literally no evidence of an existing or even past instance of any problem that the rules are intended to address – to the contrary, as discussed above, the wireless marketplace in particular is moving toward greater openness. And there is no doubt on the record before the Commission that the wireless broadband marketplace is robustly competitive and providing consumers with an exploding number of choices on all dimensions. Regulatory proponents are left to offer dire predictions about what wireless broadband providers might do in the future. Yet, as CTIA has shown in detail, these same proponents have made much the same types of predictions in the past only to be proven wrong on every front. (CTIA Comments at 12-22.) It would be wholly arbitrary to impose expansive regulations based on new speculation offered by the same parties that have been proven consistently wrong in the past.

The Commission's proposed rules would be arbitrary and capricious for another reason as well: by singling out only broadband access providers from all others in the Internet ecosystem for sweeping regulation, they would discriminate among similarly situated entities without any

justification. (*See, e.g.*, Verizon Comments at 129-30; Clark, Lehr & Bauer Comments at 7; Comcast Comments at 33-36; AT&T Comments at 230-31.) Although, for the reasons set forth above, the Commission does not have authority to impose the proposed rules on anyone, any legal theory under which it did have such authority would apply equally to other Internet gatekeepers. (Verizon Comments at 108-09; *see supra* Section V.B.2.) Those gatekeepers are similarly situated to network providers in that they have the ability to engage in the same types of behavior that the proposed rules are ostensibly meant to prevent, whether it be a dominant search engine removing a site from its search results or a content delivery network offering “prioritized” delivery of a provider’s content or application. Ignoring these possibilities, while imposing onerous regulations only on broadband Internet access providers would “appl[y] different standards to similarly situated entities,” and the Commission could not “support this disparate treatment with a reasoned explanation and substantial evidence in the record.”

Burlington N. & Santa Fe Ry. Co. v. Surface Transp. Bd., 403 F.3d 771, 777 (D.C. Cir. 2005).

CONCLUSION

The Commission should decline to adopt the proposed rules. Instead, the Commission should maintain an environment in which providers in all parts of the Internet ecosystem have incentives to invest and innovate. The Commission should also work constructively to promote transparency and industry standards, including through technical advisory groups that can provide guidance as to best practices related to the issues raised in this proceeding.

Respectfully submitted,

/s/ Michael Glover

Of Counsel:
Walter E. Dellinger
Irv Gornstein
O'Melveny & Myers LLP
1625 Eye Street, NW
Washington, DC 20006

Michael Glover
Edward Shakin
William H. Johnson
VERIZON
1320 North Court House Road
9th Floor
Arlington, Virginia 22201
(703) 351-3060

John T. Scott, III
William D. Wallace
VERIZON WIRELESS
1300 I Street N.W.
Suite 400 West
Washington, DC 20005

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