

**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

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TABLE OF CONTENTS

I.	Introduction and Summary	1
II.	The Entire Broadband Ecosystem Is Characterized by Competition, Investment, and Innovation and Is Serving Consumers Well.	12
A.	The Internet Today Is Thriving.....	12
B.	Broadband Internet Access Services In Particular Are Highly Competitive and the Subject of Massive Ongoing Investment.	14
1.	Competition and Investment in Fixed Broadband Networks and Services.....	16
2.	Wireless Competition and Investment	21
3.	Cross-Platform Competition – Rollout of 4G Wireless	29
III.	The Commission Identifies No Problem That Needs To Be Addressed and Provides No Other Valid Rationale for Its Proposed Rules.....	31
A.	The Commission Identifies No Factual or Empirical Evidence of Harm Requiring Regulatory Intervention.....	31
B.	The Commission’s Speculation About Broadband Providers’ Theoretical Incentives and Abilities To Harm Consumers Is Wrong.	33
C.	In Any Event, Other Segments of the Internet Ecosystem Would Have the Same Theoretical Incentives and Abilities the Commission Attributes to Broadband Providers.	36
IV.	To Continue the Success of the Internet, the Commission Should Focus on Preserving and Promoting Incentives for Investment and Innovation and Enabling Informed Consumer Choice.	40
A.	The Commission Must Preserve and Promote Incentives to Invest and Innovate.	40
B.	The Commission Should Promote Informed Consumer Choice.	49
V.	Rather Than Encouraging Consumer Choice, Innovation, and Investment, the Proposed Rules Would Be Affirmatively Harmful To Consumers’ Interests.....	50
A.	Any Prescriptive Rules Will Have Unintended Consequences that Harm Consumers.	51
B.	Applying Net Regulation To Wireless Broadband Services Would Be Especially Unjustified and Harmful To Consumers.....	58

C.	The Commission’s Proposed Nondiscrimination Rule – Including Its Unprecedented and Unjustified Introduction of Price Regulation for the Internet – Would Hamper Innovation and Investment and Harm Consumers.	66
D.	Any Limitations on “Managed” or “Specialized” Services Would Stifle Innovation and Limit Competition and Consumer Choice.....	77
E.	The Proposed Rules Would Place Into Doubt Whether Providers Could Engage in Network Management Needed To Better Serve and Protect Consumers.	81
F.	A Decision To Open the Door To Internet Regulation Could Have Significant Harmful International Ramifications.....	84
VI.	The Proposed Rules Would Be Unlawful.....	86
A.	The Commission Lacks the Authority To Adopt the Sweeping Rules Proposed Here.	86
1.	The Commission May Exercise Ancillary Authority Only in Limited Circumstances.....	88
2.	The Commission Does Not Have Ancillary Authority To Impose the Proposed Broad Net Neutrality Rules.	93
3.	The Ancillary Authority Theories Used in an Attempt To Justify Net Regulations, if Accepted, Would Give the Commission Far-Reaching Authority Over the Internet.....	107
B.	The Proposed Rules Would Not Withstand Constitutional Scrutiny.	109
1.	The Presence of Substantial Constitutional Problems Limits the Commission’s Authority to Adopt Net Regulations.	109
2.	The Commission’s Proposed Net Neutrality Rules Violate The First Amendment.	111
3.	The Commission Lacks Authority To Adopt Rules Because They Would Result in an Uncompensated Taking.....	119
C.	Adoption of the Proposed Rules Would Be Arbitrary and Capricious.	123
1.	The Commission Lacks a Reasoned Basis for Departing from Its Prior Orders.	124
2.	The Proposed Regulations Are Arbitrary and Capricious Because They Discriminate Between Similarly Situated Entities.	129
VII.	Other, Less Restrictive Alternatives Would Better Serve Consumers.	130

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

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

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

Attachment D – Declaration of Michael F. Ritter (“Products Decl.”)

**Attachment E – Declaration of Michael D. Poling and Thomas K. Sawanobori
 (“Network Mgmt Decl.”)**

I. Introduction and Summary

The Internet is one of the most remarkable success stories in American history. In less than two decades it has become a ubiquitous presence in our daily lives and a key driver of the United States economy. Everyone agrees the Internet should be open, driven by informed consumer choice, and exist in an environment that allows innovation and investment to continue to flourish. That is occurring today in the absence of regulation, and there is no justification for now extending regulation to the Internet, let alone applying any rules discriminatorily to only one subset of providers. Everyone in the Internet ecosystem should live under the same rules. Maintaining Congress' and the Commission's longstanding policy of Internet regulatory neutrality will help to ensure continued openness, competition, investment, and innovation. By contrast, creating different regulatory obligations among various players will distort competition and harm consumers.

The Internet and broadband marketplace are a resounding success and continue to develop in a competitive manner under the successful hands-off policy maintained by the Commission through several Administrations. The public Internet is open today, giving consumers the ability to access whatever lawful content and applications they want – a result they clearly demand and that broadband access providers must satisfy to avoid the loss of customers (and revenues needed partially to recover the immense costs of network investment) to competitors. The Internet and broadband access services remain in their nascent stages and continue to evolve rapidly in response to new and changing consumer demands. Innovation and investment are thriving in all parts of the Internet ecosystem, from applications and content to networks to devices. Further, competition is only increasing as distinctions among these categories rapidly erode and lose their meaning, and massive investments by broadband access

providers lead to still further cross-platform competition among telephone companies, cable companies, wireless providers, and others.

In this environment, the Commission identifies no problem that needs to be addressed by the proposed rules or any other justification for regulatory intervention. The Commission does not propose to engage in any market power analysis to establish that broadband access providers have market power and, in fact, could not do so given the vibrant and increasing competition in the broadband marketplace. The two isolated examples of a problem that the Commission cites – both of which involved wireline providers and were quickly addressed – can hardly form the predicate for sweeping new regulation of a flourishing and dynamic industry that has enhanced consumer welfare in innumerable ways. Moreover, the Commission has failed to identify *any* problems involving wireless broadband Internet access, yet it proposes to sweep the wireless industry into the rules as well.

Lacking any factual justification for its proposed rules, the Commission is instead left to speculate about alleged economic incentives broadband access providers might have to engage in conduct harmful to consumers. But, as explained in the accompanying analyses from a number of prominent economists, including Nobel laureate Gary Becker and former chief economists from both the FCC and the Department of Justice, the Commission has it backward.

Competitive pressures and the need to attract and keep customers to generate revenues to finance continued investment mean that broadband access providers have strong incentives to satisfy consumer demands, including for public Internet services that provide access to lawful content and applications. The Commission's hypothesized, theoretical concerns provide no economic rationale for the proposed regulations and simply do not apply in this context. In any event, other players throughout the ecosystem have the same hypothesized incentives and abilities to

take anticompetitive action and to harm consumers, from those who have their own extensive networks such as Google and Akamai, to application providers who could favor their own preferred content or otherwise limit consumer choices such as Google, Yahoo!, Apple, Microsoft, and many others. The Commission cannot justify singling out particular participants in the Internet ecosystem for onerous restrictions, while leaving others similarly situated free of such restraints.

Rather than trying to solve a non-existent problem or locking in place particular approaches to Internet services or network management, the Commission should focus on continuing the Internet's success. That requires an environment in which providers in all parts of the Internet ecosystem continue to have the incentives to invest and innovate. Network providers in particular need the flexibility to provide innovative and differentiated services that consumers desire so they have an opportunity to earn the additional revenues needed to justify continued investments. The Commission can best achieve this goal by moving toward a framework based on industry best practices focused on informed consumer choice, including the transparency needed to provide consumers with meaningful information. In this way, consumers can decide what they want for themselves, rather than having the government decide what will be available to them. And this framework – or any other rules the Commission adopts here – should apply equally to all providers in the Internet ecosystem.

Prescriptive and arbitrary rules like those proposed here, on the other hand, necessarily will have unintended consequences that will affirmatively harm consumer welfare by discouraging innovation and investment and limiting consumer choices. Indeed, imposing *any* rules in this area will have harmful effects. *First*, rules will be inevitably vague and ambiguous – increasingly so as technologies and markets rapidly change. The result will be uncertainty and

regulatory risk that will deter investment and innovation. That is true both of the Commission's previous wireline principles and of the significant expansions it now proposes. To cite just one example, the fourth principle requiring that broadband access providers not deprive users of their "entitle[ment]" to competition is so vague as to be meaningless – even the Commission is forced to ask whether it has any independent content at all. Moreover, any categorical rules, including vague ones of uncertain scope, inevitably will sweep far too broadly and foreclose activities that are pro-competitive and pro-consumer, rather than just activities that are shown to harm competition and therefore consumers.

Second, any rules such as those proposed here that impose restrictions only on particular competitors (or classes of competitors) will limit rather than promote competition. The Commission should target only demonstrated, unreasonable practices that harm competition (rather than individual competitors) and therefore consumers on a case-by-case basis, rather than engaging in collective punishment through prescriptive and discriminatory regulation. Rules that single out network providers will both inhibit their own ability to compete by innovating and offering differentiated services and restrict their freedom to provide services and platforms that enable smaller application and content providers to better compete against far larger and more established players. It is no mystery, after all, why dominant Internet incumbents such as Google are among the strongest proponents of net neutrality rules – their incentive is to lock in place through regulation advantages they have established for themselves based on today's predominant business models.

Third, history shows that even general rules inevitably result in regulatory creep and produce a massive infrastructure of arcane rules and procedures that flash freeze innovation and impose substantial costs that act as a tax on the consumers who ultimately must bear those costs.

Signs of that creep are already evident. For example, the Commission proposes to regulate pricing of Internet services for the first time by effectively imposing a price of zero on a variety of services a network provider might offer to application or content providers. Proponents of net neutrality are already advocating further regulation to control everything from the prices end users pay for access to networks to how network capacity is allocated and used to what content may be legitimate – all of which would increase the costs paid by consumers.

While all these problems will arise as a result of any rules in this area, the particular rules the Commission proposes raise their own problems:

Wireless Broadband. As noted, the Commission fails to identify *any* example of a problem in the provision of wireless broadband Internet access services that could justify application of the proposed rules to wireless network providers. This alone should end the proceeding as to wireless services. Even the four wireline broadband principles were not designed to apply in the unique context of wireless services, and neither they nor the proposed expansions of the principles can rationally be extended to the wireless context, which is unique in several respects. *First*, as the Commission has repeatedly found, wireless services are highly competitive, with ongoing investment and innovation that have brought tremendous consumer benefits, from the development of smart phones such as the Motorola Droid and the Apple iPhone to innovations such as AppStores that have exploded in popularity. Moreover, the wireless industry has moved decisively to promote openness in response to consumer demand and technological advancements that allow it to do so. There is no justification to impose the proposed regulations in the face of such success. *Second*, wireless services face unique technological and operational constraints, such as having to deal with variable demand at cell sites given the changing volume and mix of subscribers resulting from mobility, the capacity

constraints imposed by spectrum, and technical issues resulting from factors such as interference. *Third*, wireless broadband services are still in their infancy, and carriers are now making massive investments to begin deploying fourth-generation (“4G”) technologies that will provide far greater speeds and produce the long sought after ubiquitous third (indeed, fourth, fifth, and sixth) broadband pipe into the home. It would make no sense to risk the significant harms resulting from the proposed rules at this critical juncture in the industry’s development.

Nondiscrimination and Pricing. The proposal to impose a broad nondiscrimination rule – including the prohibition on any charge for various services that might be offered to content or application providers – would, for the first time, interject archaic common carriage concepts into the Internet where they have no relevance. Indeed, the standard proposed here is even more restrictive than traditional common carriage rules and would sweep so broadly that it would go well beyond proscribing actions that harm competition and therefore injure consumers.

The harms are manifest. *First*, it is virtually impossible to conceive of what such a rule even means or how it could be applied in the Internet context, where “discrimination” is not unusual. Different traffic has long been treated differently, 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. Moreover, in addition to existing differentiation, the Internet marketplace is still in its infancy, and it is impossible to predict how it will develop, or what business models and practices will prove popular to customers and efficient for providers. Imposing misplaced and outdated common carriage concepts will serve only to stifle experimentation and innovation. Indeed, the Commission itself readily concedes that many forms of discrimination are pro-competitive and can benefit consumers, yet its proposed rule makes no effort to distinguish the pro-competitive or benign forms of

discrimination or to cabin its reach to only discrimination that is shown to harm competition and consumers.

Second, the nondiscrimination rule, and the proposed extreme interpretation of that rule that would prohibit *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 benefit from today, as well as prohibit the introduction of new ones. For example, a literal application of that rule could render application stores illegal: While those popular services promote the development of innovative new applications that compete with established industry players by enhancing the ability of smaller players to reach consumers, they typically entail payments by application or content providers that are based on a percentage of the revenues earned through the site. The rule also could prohibit experimentation with alternative business models, including (depending on how it ultimately is interpreted) various two-sided pricing models such as those where subscriber fees were lower and additional fees were charged to content or application providers, whose own services were wholly or partially ad-supported. Such innovative models could promote broadband adoption – one of the Commission’s key goals in developing a national broadband plan – and be more economically efficient by sending appropriate price signals to content and application providers to optimize use of bandwidth. Yet the Commission’s proposed rule would stop such innovation in its tracks.

Third, the uncertainties and other harms resulting from the rule would only multiply as more and more services integrate components from the Internet. For example, as video services or a provider’s own “storefront” increasingly integrate selected content from the Internet, reflexively applying a nondiscrimination rule to require that access be provided to all (and on identical terms) if it is provided to any could well preclude the provider from integrating any

Internet-delivered content at all. Here again, the Commission’s proposed rule would risk flash freezing services as they exist today.

Managed or Specialized Services. Expanding the wireline broadband principles by applying any rules for the first time to so-called “managed” or “specialized” services also would be especially harmful. *First*, the ability to offer such services – and the revenues they generate – is critical to the business case for making the ongoing investments to deploy broadband more broadly and for increasing capacity and adding new capabilities where it has been deployed. While the revenues earned from charging consumers for public Internet access are a critical component of the business case, they alone cannot justify the massive required investments. As a result, it is critical to preserve the broad flexibility that network providers, like all members of the Internet ecosystem, currently have to develop innovative services in addition to traditional Internet access services, regardless of what those services might be called. *Second*, as noted above, the dividing line between Internet access and “managed” or “specialized” services is becoming increasingly blurred as more and more services, including services that are provided as private network offerings, integrate content or features from the Internet. Such innovations, of course, benefit customers by offering them even more choices. As a result, these services should be encouraged, rather than regulated and suppressed. Any attempt to define a fixed category of permissible “managed” or “specialized” services or to police a line between such services and Internet access inevitably will be both ambiguous and inflexible in the face of rapid changes in services and customer demand, and will deter such beneficial investment and innovation. Moreover, customers who purchase “managed” or “specialized” services are not seeking a traditional Internet access service, and thus it would make no sense to impose broad rules requiring access to all lawful content and applications on the public Internet and

“nondiscrimination” on such “managed” or “specialized” services. *Third*, there is no reason to go down this road. Rather than attempt to define a fixed category of permissible services, 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. This will allow providers to offer differentiated services, increase customer choice, and allow market forces and customer demand to determine the evolution of online services.

Network Management. Likewise, adopting any rules with respect to network management, even a rule that generally permits reasonable network management, would undermine the ability of providers to engage in practices needed to serve and protect consumers. *First*, it is now widely accepted that such practices are critical to maintaining a well-functioning Internet – among other things, they are necessary to deal with network congestion, optimize service quality, and respond to security threats of all types, from viruses and spam to denial-of-service attacks and botnets. That is particularly true of wireless broadband Internet access providers because of additional constraints resulting from the unique nature of radio spectrum as both a shared and scarce resource. As a result, rules that unintentionally impeded the ability to engage in effective network management practices would harm consumers. *Second*, there is no way to “grow” out of the need for effective network management practices by increasing capacity – for example, providers will need to deal with security threats no matter how large the network. Thus, network management will always be necessary. *Third*, network management requires maximum flexibility to address differences in network technologies and constant changes in threats, traffic patterns, and other factors. The proposed rules, however, would inevitably create significant uncertainty as to what would ultimately be deemed reasonable and

what would not – uncertainty that itself would have a deleterious effect by requiring engineers to repeatedly clear technical strategies with the requisite squadron of lawyers who themselves would have to evaluate practices based on inherently indeterminate standards subject to the risk of sanctions, inevitably slowing responses to new security threats and other rapidly changing conditions.

The proposed rules not only lack any factual or economic justification and would harm competition and consumers, but they also would be unlawful. *First*, as highlighted during the recent oral argument in *Comcast v. FCC*, the Commission is a creature of statute and can exercise only that authority assigned to it by Congress. Here, no statutory provision gives the Commission any authority – “ancillary” or otherwise – to impose the sweeping rules it proposes. In fact, the proposed rules would violate, rather than implement, Congress’s statutory directives. The rules – and in particular the nondiscrimination requirement – would effectively impose legacy common carrier requirements on Internet access services. But the Commission has repeatedly concluded as a matter of statutory interpretation that broadband Internet access services are information services under the terms of the Act, and the Supreme Court affirmed that finding. Consistent with the Commission’s long history of treating these types of services as unregulated, Congress decided in the 1996 Act that information services should be free from common carrier regulation and created a separate statutory category for these services to ensure that they remain so. The Commission would have no legal or factual basis to reverse course. Moreover, the Commission’s theory of ancillary authority would give it *carte blanche* authority to regulate the Internet in its entirety. Nothing in the Act provides the Commission with authority to take that step.

Second, the Commission's lack of authority is all the more apparent given that the rules would raise serious constitutional problems under both the First Amendment and the Fifth Amendment's Takings Clause. Contrary to claims of net neutrality proponents who assert that government regulations would promote First Amendment interests, the First Amendment protects against *governmental* restrictions on speech. Here, by restricting providers' ability to offer their own differentiated services, whether by using their own content or innovative content and services offered in collaboration with others, the proposed rules would impose direct restraints on speech in violation of the First Amendment. And by requiring the compulsory dedication of private property to the use of others with no express statutory authorization and without compensation, the proposed run also would run afoul of the Fifth Amendment.

Third, the absence of any factual or economic basis for the proposed rules would render their adoption arbitrary and capricious. The Commission found in a series of orders that neither the law nor the market facts justified regulation of broadband access services and accordingly freed them from regulatory constraints. There is no reasoned basis or substantial evidence that would justify a 180 degree reversal for any broadband services, and that is all the more true for wireless broadband services. Moreover, as noted above, entities other than network providers have the same hypothesized incentives and abilities to play gatekeeping roles on the Internet or to act anticompetitively that the Commission speculates network providers would have. Given that, it would be arbitrary and capricious for the Commission not to apply the same rules to those other similarly situated entities.

The Commission should alter its course and not adopt the proposed rules. Existing antitrust and consumer protection rules at both the federal and state levels already provide protection against the potential abuses about which the Commission professes concern. And an

increased and comprehensive focus on transparency – not through mandatory prescriptive regulations that cannot keep pace with changes in the marketplace and in consumer demand, but by promoting the adoption of best practices and industry guidelines – will help ensure that consumers are in a position to make well-informed choices that in turn will drive broadband access providers and all other entities to maximize consumer value and meet customer demands.

II. The Entire Broadband Ecosystem Is Characterized by Competition, Investment, and Innovation and Is Serving Consumers Well.

It is easy to forget that the Internet ecosystem is still in its infancy. Broadband Internet access services in particular are still at their nascent stage. The Commission previously found that these services were developing in a competitive manner, and that is even more true today with the continued massive investments in technologies such as fiber-to-the-premises, DOCSIS 3.0, and 4G wireless services. And broadband providers and others are just beginning to experiment with the provision of new, managed or specialized services such as telemedicine, the SmartGrid, video services that integrate content from the Internet, and innumerable other potential offerings. Precisely because broadband Internet access services – and the Internet ecosystem more generally – remain early in their development, it is particularly important that the Commission not impose regulations that would impede or even halt their continued growth and evolution by discouraging investment and innovation or distorting competition.

A. The Internet Today Is Thriving.

The public Internet today is an open platform over which consumers can go where they want and do what they want online. There is no evidence that either Verizon or any other broadband access provider blocks or degrades access to lawful content or applications. And there is every reason to believe this will remain the case going forward because that is what consumers expect and demand. The highly competitive broadband market ensures that network

providers will be responsive to customer demand, lest they lose customers and revenue needed to justify the massive ongoing investments they collectively are making in the nation's broadband infrastructure.

Consumers have more choices online than they have ever had. Innovation and investment are occurring in all parts of the broadband ecosystem, whether networks (both backbone and access), applications and content, or devices. Moreover, the lines between these categories are blurring, and the distinction between “edge” and “network” providers is rapidly becoming outmoded and artificial. The result is that all members of the ecosystem increasingly collaborate *and* compete with one another, leading to a virtuous cycle of innovation and competition that benefits consumers.

The increasing overlap within the Internet ecosystem is apparent. For example, many “edge” players have their own extensive broadband networks or take advantage of content delivery networks – which store copies of content on servers at multiple locations so as to circumvent points of congestion on the Internet in order to prioritize delivery of that content. Google, for example, now has one of the largest networks in the country that is the third-largest source of and destination for Internet traffic in the world.¹ Google's network not only carries its own content, but also enables applications such as Google Voice which, from the consumer's perspective, provides many of the functions traditionally performed by network operators. Akamai, an operator of a content delivery network, claims to deliver upward of 15% of all Web

¹ C. Labovitz, S. Lekel-Johnson, D. McPherson, J. Oberheide, F. Jahanian, & M. Karir, ATLAS Internet Observatory: 2009 Annual Report, *available at* http://www.nanog.org/meetings/nanog47/presentations/Monday/Labovitz_ObserveReport_N47_Mon.pdf. (“*Arbor Networks Report*”).

traffic.² Other examples abound. Offerings such as the iPhone and Kindle are a combination of network functions, applications, and devices. For example, the Kindle is pre-loaded with certain applications, is obviously a “device,” and comes with built-in wireless connectivity for which Amazon pays rather than the user. Apple makes both devices and applications and also operates an App Store that acts in ways traditionally associated with networks by providing a means for other application providers to distribute their services to consumers. The development of “cloud computing” amounts to the provision of applications, connectivity, and related services in an integrated fashion.

This innovation and convergence is driven by customer demand and clearly has benefited consumers by providing them more choices, new services, lower prices, and many other benefits. And the combination of technological change and innovation, investment, and competition will ensure that this evolution will continue, all with the aim of meeting consumers’ needs and desires. Creating artificial “regulatory silos” – as the proposed rules would do by defining separate categories of “devices,” “applications,” “content,” and “networks” that are subject to different obligations – would obstruct the current of Internet innovation for no good reason.

B. Broadband Internet Access Services In Particular Are Highly Competitive and the Subject of Massive Ongoing Investment.

Broadband Internet access services are still in their nascent stages and continue to develop in a competitive manner under the successful hands-off policy pursued by the Commission through the last several Administrations. Indeed, since the advent of the Internet, the Commission has allowed the Internet and related services to develop free of artificial regulatory constraints. It has successfully applied this same policy to broadband Internet access

² See Akamai, Facts & Figures, available at http://www.akamai.com/html/about/facts_figures.html.

services. In a series of orders, the Commission has 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.”³ The Commission further observed that heavy regulation of broadband services would impede investment and innovation, whereas a pro-growth, restrained regulatory approach would help encourage the deployment of next-generation broadband infrastructure.⁴

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. As in other capital intensive businesses, competition has continued to develop

³ 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, 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*”); 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) (“*Triennial Review Order*”); 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*”).

⁴ *Triennial Review Order* at 17111 ¶ 213; Order on Reconsideration, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 19 FCC Rcd 20293, 20297 ¶ 9 (2004) (“*FTTC Order*”); Order on Reconsideration, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 19 FCC Rcd 15856, 15859 ¶ 7 (2004) (“*MDU Order*”); *Verizon Forbearance Order*, 19 FCC Rcd at 21505, 21508 ¶¶ 21, 25; *Wireline Broadband Order*, 20 FCC Rcd at 14865, 14871 ¶¶ 19, 44.

across these various platforms, much as it did among trucks, railroads, shipping, and air in the transportation business, and among wireline telephony, cable, wireless, and VoIP for voice traffic. While cable emerged as an early leader, it now faces aggressive competition from traditional telephone companies, who, especially as regulatory restrictions were lifted, have invested heavily in DSL and now fiber-based services. Meanwhile, wireless companies began expanding into data and broadband services, especially with the roll-out of third-generation (“3G”) networks in much of the country. Now, 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. At the same time, much investment remains necessary to deploy broadband platforms ubiquitously and to continue to expand the capabilities and services offered to consumers going forward.

1. Competition and Investment in Fixed Broadband Networks and Services

In 2005, when the Commission confirmed that wireline broadband Internet access service is an information service outside the scope of Title II regulation, it found that such services were “offered by two established platform providers, which continue to expand rapidly, and by several existing and emerging platforms and providers.” *Wireline Broadband Order* ¶ 19. As the Commission anticipated, cable, DSL, and next-generation fiber networks have expanded rapidly, and new sources of competition also have emerged, with all available evidence pointing to further increasing competition going forward.

Most consumers in the United States now have at least two facilities-based alternatives for wireline broadband service: cable modem service from local cable operators and DSL or fiber-based service offered by telephone companies. Following early decisions by the Commission and other policymakers to refrain from applying outmoded common carriage

regulation to cable operators' broadband services – and to prevent state or local regulation that could balkanize the Internet or slow its growth – cable operators invested heavily to upgrade their networks and rapidly spread the availability of cable modem services. Capitalizing on the less intrusive regulatory approach to these services – as compared to traditional telephone providers, whose broadband services were subjected to traditional common carriage regulation initially – the cable operators opened a commanding lead in the broadband marketplace, initially taking approximately two-thirds of broadband subscribers.⁵ Today, cable modem service is available to more than 92 percent of all U.S. households. (Topper Decl. ¶ 9.)

Several years later, the Commission extended this same regulatory approach to the broadband services offered by traditional telephone providers, when it removed outdated common carriage regulation from wireline broadband services and limited unbundling obligations on next-generation broadband networks. This leveling of the competitive playing field encouraged a flood of investment that allowed telephone companies to catch up and dramatically illustrates the consumer benefits of the flexible, pro-growth approach.⁶ DSL services are now available to at least 83 percent of U.S. households with local telephone access nationwide. (Topper Decl. ¶ 11.) For example, Verizon makes DSL available to approximately 25 million households in its footprint.⁷ Within Verizon's largest local service territories, over 96

⁵ Thomas W. Hazlett and Anil Caliskan, *Natural Experiments in U.S. Broadband Regulation*, 7 *Review of Network Economics* 460, 477 (Dec. 2008).

⁶ *Id.* (while cable modem services “held a nearly two-to-one market share advantage when DSL” was subject to intrusive regulations that were not applied to cable modem, “[o]nce the FCC eliminated a key provision of the access regime, ending line sharing in a February 2003 ruling, DSL subscribership increased dramatically” so that “[b]y year-end 2006, DSL subscribership was 65% higher – more than 9 million households – than it would have been under the linear trend established under” the previous regulatory framework).

⁷ See Verizon News Release, *Verizon's High Speed Internet Service Now Available in Simpsonville and Woodruff, S.C., Areas* (Sept. 2, 2009).

percent of total households are served by wire centers in which both Verizon DSL and cable modem service is available. (Topper Decl. ¶ 15 & Att. B.)

Moreover, massive investment is being made to upgrade the networks used to provide broadband services. 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 – approximately 45 percent of households in its current landline footprint. (*Id.* ¶ 25.) Verizon’s fiber network today offers Internet download speeds of up to 50 Mbps and upload speeds of up to 20 Mbps, with much faster speeds possible when consumer demand warrants them. (*Id.*) Each of the major cable operators has begun upgrading its network to DOCSIS 3.0 technology; most are between two-thirds and 100 percent complete, with analysts projecting that by 2013, DOCSIS 3.0 will be available to approximately 99 percent of U.S. homes passed by cable. (*Id.* ¶¶ 30-31.) Cable modem services using DOCSIS 3.0 typically offer maximum download speeds of between 768 Kbps and 20 Mbps, allowing cable operators to compete with the speeds of the telephone companies’ fiber networks. (*Id.* ¶ 8.) Other telephone companies such as AT&T and Qwest also are deploying fiber-based broadband services to millions of households. (*See id.* ¶¶ 26-27.) Analysts expect that fiber (including both fiber-to-the-premises and fiber-to-the-node) will reach 50 million households by 2012. (*Id.* ¶ 24.) This investment further proves that competition is intense – broadband providers would not be investing tens of billions in their networks if they did not fear losing subscribers to rivals. Moreover, this investment will in turn drive innovations in the rest of the Internet ecosystem as it will make possible new applications, higher throughput, and other additional capabilities.

Cable and telephone companies do not merely have overlapping broadband footprints, but are competing aggressively both to retain existing subscribers and to attract new ones. For

example, over the past several years, DSL, cable modem, and fiber-based speeds have steadily increased, while prices (particularly on a per megabit basis) have steadily declined, which evidences the head-to-head rivalry between these technologies. (*See id.* ¶¶ 35-36.) In fact, according to independent reports, there is considerable and rising subscriber churn among wireline broadband providers. (*Id.* ¶ 20.) The deployment of fiber by telephone companies and DOCSIS 3.0 by cable companies has led to aggressive marketing campaigns and discounts. Verizon's FiOS advertisements, for example, criticize cable broadband technology, and cable companies such as Comcast, Cox, and Time Warner have responded by specifically targeting FiOS in their advertisements. (*See id.* ¶¶ 42-43.) These advertisements regularly compare the provider's own service to those of competitors both in terms of capabilities and features and in terms of price. (*See id.*) Verizon has also been offering cash back deals or free netbook computers for switching to FiOS, leading Comcast and Cablevision to offer their own cash back promotions. (*See id.*)

Wireline broadband providers also are competing vigorously to attract *new* broadband subscribers. Over the past several years, there has been a steady back-and-forth between cable and telephone companies in terms of the percentage of total new subscribers each technology has attracted. (*See id.* ¶ 19.) Although this competition for new subscribers is significant in its own right, it also is important to recognize that such competition also redounds to the benefit of existing broadband subscribers, particularly with respect to the aspects of broadband access service that are most relevant here. In order to attract new subscribers, wireline providers must offer access to every conceivable type of content, and do so using network management practices that consumers accept, which ensures that all broadband subscribers get the same benefits. (*See id.* ¶ 21.)

Finally, in addition to fiber, cable, and DSL, there is additional broadband competition from a variety of sources. The United States is perhaps the only country in the world with at least two satellite broadband services widely available. (*See id.* ¶ 109.) Fixed wireless broadband also is available in many locations, with the potential to reach many more at relatively low cost compared to the deployment of wireline facilities. (*See id.* ¶ 108.) WISPA, which represents more than 300 wireless ISPs, states that its members provide broadband fixed wireless services to more than 2 million consumers and businesses, concentrated heavily in rural areas. (*See id.*) There is at least one fixed wireless broadband provider in all but four states (Connecticut, Delaware, Maine, and Rhode Island), and an average of 16 providers in the remaining 38 states for which data are available.⁸ And, of course, as explained further below, all of these providers face still further emerging cross-platform competition from the new generation of wireless technologies and services now being deployed.

Consumers are benefiting from the rapid evolution in new services, applications, and content that these new investments and deployments have engendered from all providers, including network providers. For example, Verizon now offers “Widgets” as part of its FiOS TV service that enable users to check selected content such as local weather reports on their television screens and integrate selected applications and content from the Internet, such as Facebook and Twitter. (Products Decl. ¶¶ 14, 25.) AT&T provides similar offerings through its U-Verse service. (*Id.* ¶ 25.) Over time, additional integration of managed and Internet content will continue, thus increasing the choices available to consumers, and further blurring the lines between private network services and traditional Internet access.

⁸ Ind. Anal. & Tech. Div., Wireline Competition Bureau, FCC, *High-Speed Services for Internet Access: Status as of June 30, 2008* at Table 8 (July 2009) (“*FCC June 2008 High-Speed Internet Access Report*”).

2. Wireless Competition and Investment

Wireless broadband services, while still at their nascent stage, are characterized by an even greater degree of dynamism, diversity, and product differentiation, all arising from intense competition among numerous service providers. Driven by increasingly innovative networks, devices, and applications in response to fast-changing consumer demands, the wireless ecosystem has brought expanded and improved wireless services to the American public. As demonstrated by the records recently compiled in response to the Commission's *Wireless Competition* and *Wireless Innovation* Notices of Inquiry and as the Commission concluded in its most recent competitive analysis of the industry,⁹ wireless services are fiercely competitive. The attached declaration by economist Michael Topper aptly points out that wireless services

show[] many signs of vigorous competition – low prices, numerous customer choices, new services and features, improved quality, and significant innovation. Most consumers have numerous choices when purchasing wireless service; switching between providers has gotten easier; service packages offering various bundles of services are available to consumers with different needs; there has been robust price competition for voice and data plans; wireless devices and mobile operating systems are evolving rapidly; and large numbers of new applications are available and in widespread use.

(Topper Decl. ¶ 48.)

This competition has promoted rapid innovation and diversity among wireless broadband offerings and the associated devices, applications, and content. With massive investment from

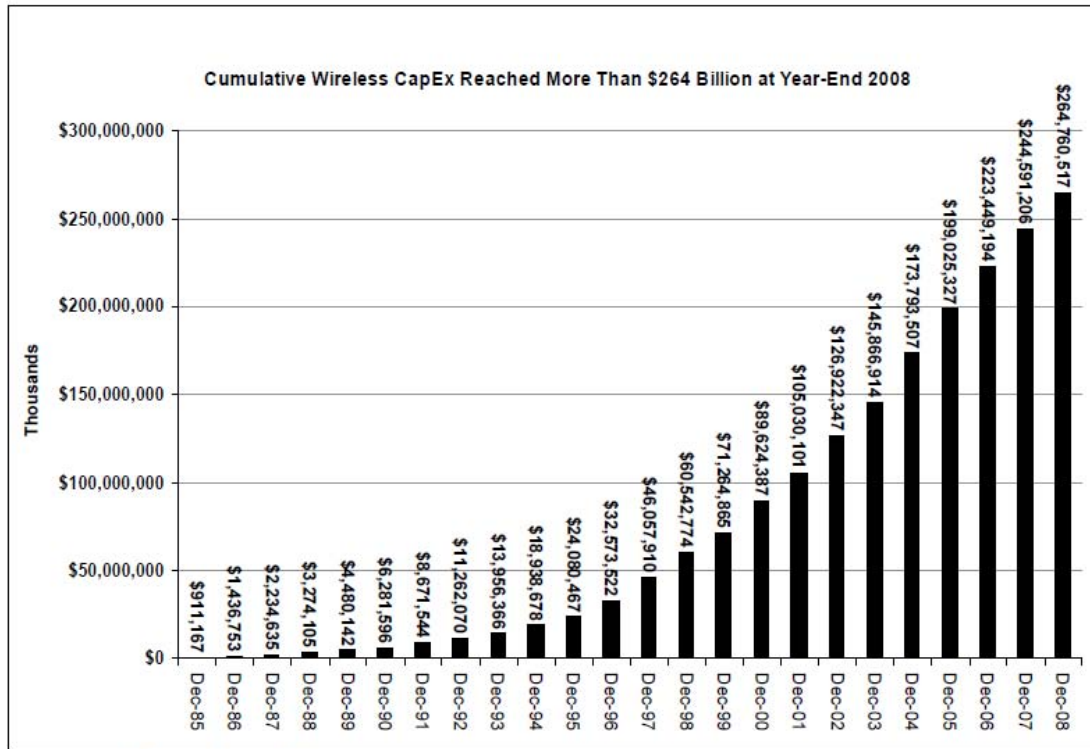
⁹ Thirteenth Report, *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, 24 FCC Rcd 6185, ¶ 274 (2009) (“U.S. consumers continue to benefit from effective competition in the CMRS marketplace.”) (“*Thirteenth CMRS Competition Report*”); Notice of Inquiry, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, 24 FCC Rcd 11357 (2009) (“*Wireless Competition NOF*”); Notice of Inquiry, *Fostering Innovation and Investment in the Wireless Communications Market; a National Broadband Plan for Our Future*, 24 FCC Rcd 11322 (2009) (“*Wireless Innovation NOF*”). See Comments of Verizon Wireless, WT Docket No. 09-66 (filed September 30, 2009); Comments of Verizon Wireless, GN Docket No. 09-157 (filed September 30, 2009).

multiple providers, first-generation networks have given way to second-, third-, and now fourth-generation infrastructure, offering more and better broadband as well as ever-expanding coverage. Even as consumers benefit from increasingly robust service capabilities, prices have dropped at an astonishing rate.

Numerous and Varied Competitors. The marketplace for wireless broadband service includes a wide range of providers offering services under a variety of business models, competing aggressively for broadband subscribers. (Topper Decl. ¶ 51.) They include not only the four “nationwide” providers – Verizon Wireless, AT&T, T-Mobile USA, and Sprint – but numerous other facilities-based providers. Today, Clearwire offers CLEAR-branded 4G WiMAX high-speed Internet access; the company intends to cover up to 120 million people in more than 80 markets by the end of this year. (*Id.* ¶ 69.) Clearwire also intends to sell wholesale services to cable companies such as Comcast and Time Warner Cable. (*Id.* ¶ 70.) In addition, several large regional carriers, including Leap Wireless, MetroPCS, and U.S. Cellular, play significant roles in shaping consumer experience in wireless broadband. (*Id.* ¶ 71.) Numerous smaller carriers also offer wireless broadband service, including Cincinnati Bell Wireless, NTELOS, SouthernLINC, Corr Wireless, Pocket Communications, and Cellular South. (*Id.* ¶¶ 51, 72 & n. 114.) MVNOs such as Beyond Mobile and Credo Mobile also provide wireless broadband along with their voice services, exerting additional competitive pressure. (*Id.* ¶ 51.)

Network Investment and Expanding Broadband Coverage. Wireless providers have invested hundreds of billions of dollars in the aggregate to improve and expand their networks. Since 2001, America’s 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.) Moreover, investment has only grown as the current market structure has evolved:



Source: CTIA Semi-Annual Survey

Investment in network facilities and infrastructure has directly resulted in expanded broadband coverage. According to the Commission, as of May 2008, approximately 92% of Americans lived in census blocks served by 3G mobile broadband, and more than 72% of consumers had a choice of multiple 3G mobile broadband carriers. (Topper Decl. ¶ 53.)

The breadth and depth of network coverage is a principal basis on which wireless providers compete with one another, as evidenced by Verizon Wireless’s recent “There’s A Map for That” campaign comparing its 3G coverage to AT&T’s.¹⁰ Verizon Wireless’s 3G network now covers 284 million people. (Topper Decl. ¶ 65.) Sprint offers 3G service to more than 271

¹⁰ See, e.g., John Paczkowski, *Verizon to iPhone Users: “Want Five Times More 3G Coverage? There’s a Map for That,”* available at <http://digitaldaily.allthingsd.com/20091005/verizon-to-iphone-users/>.

million people. (*Id.* ¶ 67.) AT&T offers 3G service utilizing a different technology to nearly 350 markets and is taking steps to upgrade its current network to provide faster speeds. (*Id.* ¶ 66.) Similarly, T-Mobile offers 3G technology in numerous markets, and recently announced plans to upgrade its 3G technology to higher speeds. (*Id.* ¶ 68.) Smaller carriers also continue to deploy 3G technologies. (*Id.* ¶ 71.) For example, U.S. Cellular announced that more than 60% of its sites would be EV-DO capable by the end of 2009. (*Id.*) Stelera Wireless is deploying data services to 55 cities by the end of 2009, specifically to underserved rural communities. (*Id.* ¶ 72.) Alaska Communications System Group and GCI, both of which provide mobile broadband to Alaska, each announced in 2008 that they had launched EV-DO Rev A technology. (*Id.*) Other rural carriers like Bluegrass Cellular, which operates in rural Kentucky, Cellular South, which has a strong presence in Mississippi, and NTELOS, which operates in Virginia and West Virginia, have rolled out high-speed wireless broadband networks in their various markets and continue to upgrade their networks. (*Id.*)

Diverse Broadband Plans and Price Competition. Wireless broadband providers offer a diverse array of data plans that have fallen in price, both on an absolute scale and on a dollar-per-megabyte basis. In addition to traditional post-paid plans, providers increasingly offer pre-paid options, volume-limited broadband offerings, and all-you-can-eat bundles, as well as a variety of speed “tiers.”¹¹ Providers offer wireless broadband data service alone or in concert with voice and/or messaging services or with a smartphone or netbook computer. (Topper Decl. ¶ 59.)

Broadband plan prices have been falling significantly. For example, in 2004, AT&T offered a data plan of \$19.99 for the first 8MB of data, while in 2009, it offered a 200 MB mobile broadband plan for \$40, a reduction from \$2.50 per MB to \$0.20 per MB. (*Id.* ¶ 58.)

¹¹ See, e.g., Craig Moffett et al., Bernstein Research, *U.S. Wireless: Pre-Paid Pricing... Fifty Is the New One Hundred* 1, 19 (April 14, 2009).

Similarly, in 2004, Sprint offered a \$40 data plan for 20MB, but its 5GB mobile broadband plan in 2009 was priced at \$60, a reduction from \$2 per MB to \$0.12 per MB. (*Id.*) Prices have also declined on an absolute basis. In August 2009, for example, Sprint reduced the cost of its 3G/4G plan by \$10, from \$79.99 per month to \$69.99.¹²

Even as prices have been falling, throughput speeds and broadband coverage have increased as competition has forced network operators to build more robust data networks. Many of the data plans from 2004 offered older, lower-speed 2G or 2.5G technology, while all of the plans offered in 2009 provide higher-speed 3G or 4G service. Many networks that used 3G EV-DO technology in 2004 today use EV-DO Rev. A, which offers greatly increased speeds. Coverage has likewise improved. For example, in the last year for which data is available, the percentage of the U.S. population covered by 3G mobile broadband swelled from 82% to more than 92%. (Topper Decl. ¶ 53.)

Devices, Applications, and Content. The other parts of the wireless broadband ecosystem – including devices, applications, and content – are also characterized by fierce competition, growing diversity, and increasing product differentiation. The abundance of wireless devices (handsets, smartphones, netbooks, and modem/aircards) demonstrates the vibrant competition in this segment. There are more types of handsets available in the U.S. than in any other country. As CTIA recently noted, U.S. consumers have access to more than 630 different wireless handsets and devices, compared to, for example, fewer than 150 in the U.K.¹³ These devices are produced by no fewer than 30 different manufacturers. Providers use wireless devices and

¹² See Kathryn Weldon, Current Analysis, *Sprint Lowers the Price of Mobile Broadband 3G/4G, Keeping to Its Value and Data Leadership Positioning* (Aug. 21, 2009).

¹³ CTIA, *Handset Innovation*, attached to Ex Parte Notice from Christopher Guttman-McCabe, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-51 et al. (filed Aug. 14, 2009).

features as a means to differentiate themselves in the marketplace.¹⁴ Smartphones in particular have proliferated, ranging from the Motorola Droid to the iPhone to the Palm Pre. Each of the national carriers offers about 17 different smartphones that can be used for mobile broadband service. (Topper Decl. ¶ 78.)

Applications for wireless devices are also the subject of robust competition and more access options than ever before. Today there are tens (or even hundreds) of thousands of applications available to wireless consumers, and the number increases every day. Consumers are free to obtain new applications from network service providers themselves, from branded “App Stores,” or directly from third-party developers. The multitude and diversity of applications is rivaled only by the speed at which consumers are adopting them. One example is the recently launched Palm Pre. On June 6, 2009, there were more than 93,000 downloads from Palm Pre’s menu of 18 applications.¹⁵ Within eleven days, the menu of available Palm Pre applications had increased to 30, and Palm Pre users had completed over 660,000 downloads.¹⁶ Likewise, Apple customers have downloaded over 2 billion applications in the 14 months since its App Store opened. (Topper Decl. ¶ 83.) (To put this in perspective, the iTunes store did not sell its billionth song until it was almost 3 years old.¹⁷) The typical iPhone or Android user

¹⁴ See, e.g., *Cellphones: Our Tests of 70 Standard and Smart Models Show They’re Sharing Many More Features*, CONSUMER REPORTS, Jan. 2009, at 34-39.

¹⁵ See Donald Melanson, *Close to 700,000 Palm Pre apps downloaded to date*, ENGADGET, June 20, 2009, available at <http://www.engadget.com/2009/06/20/close-to-700-000-palm-pre-apps-downloaded-to-date>.

¹⁶ *Id.*

¹⁷ Jonathan Silverstein, *iTunes: 1 Billion Served*, ABCNEWS.COM, Feb. 23, 2006, available at <http://abcnews.go.com/Technology/story?id=1653881>.

downloads approximately 10 applications per month.¹⁸ In short, diversity and openness abound in the application marketplace.

Wireless broadband consumers also enjoy an ever-expanding trove of mobile content, from network service providers and third parties alike.¹⁹ In addition to real-time streaming, music or video content is often loaded directly from the consumer's computer, portable player, or digital video recorder ("DVR") into a smartphone for convenient viewing.²⁰ Consumer demand, in this case for branded content as leading Internet portals such as Microsoft and Google entered the space, have driven these trends.²¹ Notably, neither Microsoft nor any of the other top Internet content sites, such as eBay, Yahoo!, AOL, or Amazon, are affiliated with wireless network providers. Verizon Wireless offers a wide range of video, music, gaming, and other content through V CAST, but also facilitates its end-users' access to unaffiliated content. Other providers likewise make a wide diversity of content available to their subscribers.²² Wireless providers are also increasingly featuring selected, web-based content or applications on their devices or in their storefronts. (Products Decl. ¶ 15.)

¹⁸ AdMob, AdMob Mobile Metrics Report (July 2009), *available at* <http://metrics.admob.com/wp-content/uploads/2009/08/AdMob-Mobile-Metrics-July-09.pdf>.

¹⁹ See Macquarie Research Equities (USA), *Wireless Emerging Devices* 8 (Mar. 30, 2009).

²⁰ *Id.*

²¹ *Id.*

²² See, e.g., AT&T, CV: Get Video on Your Cellphone, *available at* <http://www.wireless.att.com/learn/messaging-internet/media-entertainment/video.jsp?wtSlotClick=1-0019TW-0-1&WT.svl=title>; Sprint, NFL Mobile Live, *available at* <http://www.sprint.com/nfl>; Sprint, Sprint TV, *available at* http://www.nextel.com/en/services/power_vision/sprint_tv.shtml; US Cellular, Music, *available at* http://www.uscc.com/uscellular/SilverStream/Pages/x_page.html?p=music; MetroPCS Wireless, Inc. Introducing Pocket Express, *available at* <http://www.metropcs.com/pocketexpress>; TracFone, Download Ringtones, *available at* <http://tracfoneblog.blogspot.com/2007/09/download-ringtones.html>; Virgin Mobile, Downloads, *available at* <http://downloads.virginmobileusa.com>.

The wireless broadband marketplace also is moving toward increased openness, and network providers are providing mechanisms to facilitate development of third-party content and applications. For example, Verizon has launched its Open Development program, which encourages third-party developers to produce new devices and applications that can run on Verizon's networks. (Products Decl. ¶ 20.) Under this program, customers have the option to use any wireless device that meets the company's published technical standards and any application the customer chooses on such devices. (*Id.*) To facilitate development, Verizon has published technical standards, held a developer's conference, and established a certification process for third-party devices. (*Id.*) The result has been new and differentiated wireless devices, services, and applications, giving consumers more choices. In April 2009, Verizon joined the Joint Innovation Lab, a joint venture with China Mobile, SoftBank Mobile, and Vodafone that will promote the development of new mobile technologies, applications, and services, with an initial focus on developing and deploying a mobile widgets platform to encourage innovative new mobile internet services. (*Id.* ¶ 21.) And Verizon also recently announced the creation of the Verizon Wireless LTE Innovation Center – an “incubator” with development labs and testing environments to assist third-party device and application developers to create innovative new products and services for Verizon's 4-G wireless network. (*Id.* ¶ 22.) In addition, Verizon now offers the Droid smartphone based on the open Android operating system.

In light of all this extraordinary innovation and robust competition, it is no surprise that the United States Government Accountability Office recently found that an overwhelming 84% of adult U.S. wireless consumers are “very or somewhat satisfied” with their wireless service.²³

3. Cross-Platform Competition – Rollout of 4G Wireless

Even as wireless broadband use is already thriving, deployment of 4G networks is just getting started and will soon be widespread; these more robust wireless networks will facilitate increased competition across both mobile and fixed platforms. In 2008, Verizon Wireless invested over \$9 billion for spectrum in the 700 MHz auction. The company will initiate commercial LTE service in the 700 MHz band this year, with coverage to approximately 100 million people in 30 markets during 2010. (Topper Decl. ¶ 65.) The company projects the LTE network will be built out nationwide by the end of 2013. (*Id.*) AT&T will be starting LTE trials in 2010, with commercial deployment beginning in 2011. (*Id.* ¶ 66.) Sprint has recently brought 4G to 27 markets, including Honolulu, Maui, San Antonio, Seattle, and Chicago and plans to bring service to multiple additional markets during 2010, including Boston, Houston, New York, San Francisco, and Washington, D.C. (*Id.* ¶ 67.) Clearwire, which boasts far greater spectrum holdings nationwide than Verizon Wireless, AT&T Mobility, and T-Mobile,²⁴ has begun to roll-out 4G service – it has launched service in at least fourteen markets with over 10 million people and plans to cover 120 million people in 80 markets by the end of 2010. (*Id.* ¶ 69.) Cable companies such as Comcast and Time Warner have already begun or announced plans to resell Clearwire’s 4G service. (*Id.* ¶¶ 70, 101.) Comcast, for example, has launched service in cities such as Chicago, Atlanta, Dallas/Fort Worth, Raleigh, Philadelphia, Las Vegas, and Portland,

²³ General Accounting Office, Report to Congress, *FCC Needs To Improve Oversight of Wireless Phone Service*, GAO 10-34, at 8 (Nov. 2009).

²⁴ Clearwire Corporation Q4 2008 Earnings Call Transcript, March 6, 2009, <http://seekingalpha.com/article/124559clearwire=coporation-q4-2008-earnings-call-transcript>.

Oregon.²⁵ Regional providers are also upgrading – MetroPCS, for example, plans to begin deployment of its LTE network in the second half of 2010. (Topper Decl. ¶ 71.) Cox has also announced plans to build its own wireless network, potentially at the 4G level. (*Id.* ¶ 101.)

Providers are investing aggressively in next-generation wireless broadband service, and the roll-out of 4G will provide a competitive option to wireline broadband for many consumers. Indeed, 4G providers already are advertising their services as wireline replacements. Clearwire, for example, advertises its 4G WiMAX service as “a wireless alternative to DSL or cable internet service.”²⁶ All else being equal, consumers clearly prefer the benefits of mobility, and 4G’s anticipated typical speeds of 5-12 Mbps will bring wireless capabilities much closer to (and in some cases push them past) many of the fixed broadband options that consumers use today and sufficient for the average user. (Topper Decl. ¶¶ 97-98.) Thus, just as with voice telephony, in which wireless services initially were a complement to wireline services but have now become commonplace alternatives as increasing numbers of consumers “cut the cord,” the rollout of 4G will put even greater competitive pressure on wireline providers, who will need to offer advantages – in terms of price, capabilities, and/or other attributes – to offset the advantages of mobility. (Topper Decl. ¶¶ 92-95.) The result will be a virtuous cycle of still further competition across platforms in which innovations, prices, and other new capabilities over one platform will force responses by the others, all to the benefit of consumers.

²⁵ Comcast High Speed 2go, FAQs, *available at* <http://www.comcast.com/highspeed2go/#/faq>; *see also* Comcast High Speed 2go, Coverage, *available at* <http://www.comcast.com/highspeed2go/#/coverage> (Comcast offers nationwide 3G coverage).

²⁶ *See* <http://www.clear.com/shop/services/home>.

III. The Commission Identifies No Problem That Needs To Be Addressed and Provides No Other Valid Rationale for Its Proposed Rules.

Against a backdrop of increased competition, innovation, and investment, the Commission faces a particularly high hurdle in justifying intrusive regulatory intervention in the broadband marketplace. As the FTC cautioned in 2007 in finding no “significant market failure or demonstrated consumer harm from conduct by broadband providers,” policymakers “should be wary of enacting regulation solely to prevent prospective harm,” because “[i]ndustry-wide regulatory schemes—particularly those imposing general, one-size-fits-all restraints on business conduct—may well have adverse effects on consumer welfare. . . . particularly in terms of product and service innovation.”²⁷ The *NPRM* does not provide the requisite justification. Despite the Commission’s repeated insistence that it will be data-driven, it identifies no data or facts that demonstrate an existing problem that needs to be remedied. Its speculation concerning broadband providers’ hypothetical incentives and abilities to act in a manner that harms consumers ignores the competitive constraints providers face and in any event is wrong as a matter of economic theory. And it offers no basis to single out network providers for regulation when other members of the Internet ecosystem have the same hypothetical incentives and abilities the Commission attributes to network providers.

A. The Commission Identifies No Factual or Empirical Evidence of Harm Requiring Regulatory Intervention.

While the Commission posits that broadband access providers “with market power” might have certain anticompetitive incentives, *NPRM* ¶¶ 70-72, it does not even attempt any analysis to establish that broadband access providers *do* have market power, let alone

²⁷ See Federal Trade Commission, *Staff Report: Broadband Connectivity Competition Policy*, at 11 (2007), available at <http://www.ftc.gov/reports/broadband/v070000report.pdf> (“*FTC Report*”).

demonstrate any “market failure” requiring regulators to step in. The *NPRM* does not propose any market definitions, seek competitive data, or engage in any of the inquiries that would be necessary to conduct a market power analysis. And, in fact, as the discussion above demonstrates – and the FCC itself has repeatedly found – the broadband access market is vibrantly competitive and becoming more so with the emergence of new alternatives, so that broadband access providers do not have, and are unlikely to acquire, market power.

Nor can the FCC show a lack of openness or a pattern of blocking or degrading access to lawful content that needs to be addressed. The *NPRM* points only to two isolated instances on the wireline side: an incident in which a small rural telephone company, Madison River, tried to block users from placing VoIP calls over their DSL connections, and a case in which Comcast degraded BitTorrent P2P traffic.²⁸ Both of these cases were quickly addressed after becoming public without the need for any new regulation. Moreover, neither involved conduct that could justify the proposed rules. Indeed, Madison River was fundamentally a dispute about the rate that applied to certain terminating traffic and could be addressed directly by comprehensively reforming the antiquated intercarrier compensation rules – a long-neglected and real problem at the core of the Commission’s jurisdiction. In any case, to the extent these two examples implicate the proposed rules at all, they were both cases of blocking or degradation of particular services – the Commission can point to *no* example of the more general “problem” its broad rules, such as the prohibition on any form of “discrimination,” are intended to address.

To the contrary, the momentum in the broadband marketplace is toward *increased* openness and efforts by network providers to promote the development of applications and

²⁸ Order, *Madison River Commc’ns LLC*, 20 FCC Rcd 4295 (2005); Memorandum Opinion & Order, *Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd 13028 (2008).

content by third parties. As described above, for example, in the wireless context, Verizon's Open Development program allows users to attach any wireless device that meets its published technical standards and to use any lawful application on that device. Moreover, the initiative is specifically designed to encourage third-party developers to produce new devices and applications that can run on Verizon's networks. And, of course, App Stores provide a platform through which third-party application developers of all sizes can reach large numbers of customers and earn revenue to reward and fund innovation.

B. The Commission's Speculation About Broadband Providers' Theoretical Incentives and Abilities To Harm Consumers Is Wrong.

In place of any factual evidence of market power or market failure, the Commission hypothesizes about incentives broadband providers might have at some point in the future to engage in conduct harmful to consumers. But the Commission has it backward, illogically grafting monopoly economics onto the competitive broadband access world. Network providers have every incentive to continue to ensure that consumers have the tools and access they want. 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. As the FTC concluded, “[c]onsumers – particularly online consumers – have a powerful collective voice. In the area of broadband Internet access, they have revealed a strong preference for the current open access to Internet content and applications.”²⁹ Competitive pressures ensure that providers will meet this consumer demand: if a provider does not, customers will choose another one who does.

Competition among broadband providers – and the potential loss of subscribers to rivals – thus greatly constrains a broadband access provider from using pricing, prioritization,

²⁹ *FTC Report* at 11; *see also id.* at 157 (“[A]s long as consumers have one or more alternatives to which they can turn, it is difficult to imagine them accepting the blockage or elimination of content that is important to them.”).

discrimination, or other network management practices in a manner harmful to consumers. (Becker/Carlton Decl. ¶ 35; Topper Decl. ¶¶ 131, 134, 143.) Rivals providing unrestricted access to content and applications would be able to attract subscribers from a provider that sought to restrict such access, especially given the ability of content providers and others to detect (and publicize) any efforts to block or degrade content. (Becker/Carlton Decl. ¶¶ 25, 41.) The threat of lost subscribers is a powerful constraint. Revenues from traditional Internet access services, while not sufficient standing alone, are nonetheless vital to financing continued investment in, and deployment of, broadband facilities. Without those revenues (as well as revenues from bundled offerings that include traditional Internet access services), broadband access providers could not afford to make the massive investments needed to maintain and expand their networks – investments without which their businesses would deteriorate over time. Thus, broadband access providers have every incentive to meet customers’ demands, including the demand for an open Internet service that gives them access to all lawful content and applications.

The Commission’s speculation about hypothetical incentives that broadband access providers might have to act anticompetitively does not overcome this reality. The Commission suggests that a broadband access provider that is vertically integrated and provides its own content or applications may have an incentive to discriminate against competing application or content providers. *NPRM* ¶ 72. But that is incorrect. As an initial matter, the same competitive constraints described above apply to this scenario as well: it does no good for a broadband access provider to favor its own affiliated content if the result is that consumers will leave its service altogether for a provider with a more open platform. (Topper Decl. ¶ 146; Katz Decl ¶ 22.) Put another way, vertical integration is unlikely to lead to anticompetitive effects where the

provider does not have market power. To the contrary, vertical contracts can lead to efficiency benefits through greater coordination facilitated by integration that result in higher levels of consumer welfare. (Topper Decl. ¶¶ 120, 132; Katz Decl. ¶ 78.) In the wireless context, for example, cooperation among wireless broadband access providers, device manufacturers, and application providers allows devices and applications to be optimized for use on the network, leading to a better product for consumers.

Moreover, even apart from any constraints imposed by competition, the value of broadband access services to most consumers is a function of their ability to access the Internet content they desire. As a result, discrimination by broadband access providers that limited access to content would reduce the amount that consumers were willing to pay for these services – accordingly, even a monopolist would be unlikely to engage in the type of discrimination and degradation the Commission posits.³⁰ (Becker/Carlton Decl. ¶ 10.) That is all the more true in the highly competitive context of today’s broadband business. In any case, as discussed below, antitrust law is well-suited to deal with any problems that do develop as a result of anticompetitive vertical foreclosure, without the negative effects of speculative, ex ante regulation.

In addition to vertical integration, the Commission incorrectly suggests that a broadband access provider has a “terminating monopoly” to an end user that subscribes to its service and can leverage this “power” to favor or disfavor particular content or extract payments from

³⁰ See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85, 104 (2003).

content and application providers.³¹ But this posits a situation that does not exist in the real world, and ignores the competitive dynamic of the broadband Internet access market. In voice telephony, the presence of a “terminating monopoly” allowed carriers to impose high terminating access fees because their end customers never directly experienced those higher prices, and regulatory constraints prevented long distance carriers from declining to deliver traffic to terminating carriers with excessive rates or from charging customers higher de-averaged prices to reflect those excessive rates. As a result, competitive constraints did not operate. (Topper Decl. ¶¶ 148-49.) But that is not the case for broadband access providers. As noted, if they acted to disfavor or degrade content, that would directly affect consumers’ experience, and they could and would switch to an alternative provider. (*Id.* ¶ 150.) Likewise, if a broadband access provider attempted to charge inefficiently high prices to a content or application provider, consumers would feel the effects: for example, if the content provider passed along some or all of those fees to its (and the broadband access provider’s) customers. (*Id.*) Thus, the Commission’s theoretical concerns cannot overcome the empirical reality that no problem exists today that requires regulatory intervention.

C. In Any Event, Other Segments of the Internet Ecosystem Would Have the Same Theoretical Incentives and Abilities the Commission Attributes to Broadband Providers.

If the Commission is going to regulate based on hypotheses, it cannot ignore that other members of the Internet ecosystem would have the same theoretical incentives and abilities as broadband providers, particularly given the convergence described above. If the Commission does decide to move forward with unwarranted regulation, everyone should be required to abide

³¹ *NPRM* ¶ 73 (“[E]ven if there is competition among broadband Internet access service providers, once an end-user customer has chosen to subscribe to a particular broadband Internet access service provider, this may give that broadband Internet access service provider the ability, at least in theory, to favor or disfavor any traffic destined for that subscriber.”).

by the same rules. There is no basis to single out broadband providers. The irony is compelling – in the name of “network neutrality” and “nondiscrimination,” the proposed rules would abandon the regulatory neutrality that has allowed the Internet to flourish, and instead would blatantly discriminate against one subset of players in the Internet ecosystem.

For example, many of the larger incumbents of the ecosystem such as Google and Amazon have their own national or even global networks – including extensive fiber facilities, servers, and databases – that they use to deliver and prioritize their own content over others whose traffic is transmitted over the public Internet on a best-efforts basis. As noted above, for example, Google’s network carries the third-largest amount of Internet traffic in the world. *See Arbor Networks Report*. The advantages such networks provide to these established players are both substantial and enduring, as most smaller entities do not have the resources to deploy comparable networks. Although entities such as Akamai and Limelight operate content delivery networks on which content and application providers can buy service, those operators too could choose to prioritize or favor particular traffic (e.g., customers who transmit the highest volume of traffic or pay the most).

Similar incentives and abilities would exist for application providers. For example, search engines “like Google, Yahoo and Microsoft’s new Bing have become the Internet’s gatekeepers, and the crucial role they play in directing users to Web sites means they are now as essential a component of its infrastructure as the physical network itself.”³² That is particularly true of Google, which holds a dominant position among search engines, handling nearly two-thirds of all searches conducted in the United States.³³ Google has the same theoretical

³² Adam Raff, “Search, but You May Not Find,” *New York Times* at A27 (Dec. 27, 2009).

³³ Press Release, *comScore Releases November 2009 U.S. Search Engine Rankings* (Dec. 16, 2009).

incentives and abilities to discriminate against competitors (e.g., refusing to list a competitor altogether or pushing it further down in the search results) or favoring its own content (e.g., by listing it first). Indeed, in the case of Google, the ability and incentives are more than just theoretical – it “now favors its own price-comparison results for product queries, its own map results for geographic queries, its own news results for topical queries, and its own YouTube results for video queries.”³⁴ If a user searches for an address, Google provides a link to its maps product, but not to competitors such as Yahoo! or Mapquest;³⁵ it reportedly banned ads containing political speech, including anti-net neutrality advertisements;³⁶ and it has allegedly removed legitimate companies from its search results.³⁷ Moreover, the business model of Google and other search engines is built on charging content and application providers for preferential and prominent placement of links to their sites (under labels such as “sponsored links”), rather than simply providing “neutral” or “nondiscriminatory” search results.

Google similarly offers its own domain name service (“DNS”). As the Commission is well aware, DNS services are the “phone book” of the Internet, allowing applications such as the World Wide Web and email to operate using domain name-based addressing. The proposed rules, however, would leave Google and other providers of competitive DNS service free to engage in activities that steer traffic to particular providers or otherwise manipulate the provision

³⁴ Raff, *supra* n. 32, at A27.

³⁵ See Greg Sterling, “Google No Longer Linking to Yahoo, Mapquest Maps,” *Search Engine Land* (Jan. 16, 2007), available at <http://searchengineland.com/google-no-longer-linking-to-yahoo-mapquest-maps-10267>.

³⁶ See Scott Cleland, “More Evidence Google’s Not Neutral . . . and Seeks To Be the Supreme Arbiter of ‘Truth’ on the Internet,” (Oct. 26, 2009), available at <http://www.precursorblog.com/content/more-evidence-googles-not-neutral-and-seeks-be-supreme-arbiter-truth-internet>; Robert Cox, “Google bans anti-MoveOn.org ads,” *Examiner.com* (Oct. 11, 2007), available at http://www.examiner.com/a-983100~Robert_Cox__Google_bans_anti_MoveOn_org_ads.html (banning advertisements critical of MoveOn.org).

³⁷ See Raff, *supra* n. 32, at A27.

of content based on any criteria they choose. Google could also enhance its already expansive archive of user information by pointing its Chrome browser or tool bar to its own DNS service to ensure a steady flow of traffic through its DNS infrastructure.

Likewise, Internet portals such as Yahoo! and AOL are necessarily selective about what content and applications they feature. Because they drive more traffic to those featured choices, they could be said to “discriminate” against others they do not feature. A device manufacturer such as Apple has a form of “terminating monopoly” to a user that buys an iPhone and could choose to degrade or block particular types of content and applications – indeed, it does precisely that by permitting only applications it approves to appear in its App Store. And Microsoft as the provider of the Windows operating system and Internet Explorer browser has numerous opportunities to promote (or disfavor) particular online content and applications.

Each of these actors is a “bottleneck” whose services cannot be easily duplicated because of the significant capital investment, engineering, and other resources that are required to develop their offerings. They have the same hypothesized incentives and abilities to prefer or prioritize their own content or services or to disfavor those of competitors. To be sure, just as with broadband Internet access providers, the best way to ensure that these actors do not act on the hypothesized incentives and abilities is a common framework of informed consumer choice for all providers in the ecosystem, as discussed below. But there is no basis to single out a particular class of competitors for differential treatment – if the hypothetical incentives and abilities are sufficient to justify imposing the proposed rules on broadband access providers, they also would justify doing the same with respect to the rest of the Internet ecosystem. Accordingly, any rules adopted here, whatever they ultimately may be, should apply to all providers.

IV. To Continue the Success of the Internet, the Commission Should Focus on Preserving and Promoting Incentives for Investment and Innovation and Enabling Informed Consumer Choice.

A. The Commission Must Preserve and Promote Incentives to Invest and Innovate.

In order for the Internet to continue to meet consumers' needs and satisfy evolving demands, the Commission and other policymakers need to preserve incentives for continued investment and innovation in all parts of the ecosystem, including networks. Massive additional investment will be required to deploy advanced, intelligent networks that will be needed to support and provide the services consumers expect and want. That is obviously true with respect to the deployment of *new* networks. As described above, 4G wireless services are only now being rolled out and will require major investments in network facilities. Likewise, in the case of wireline networks, additional investment will be needed to deploy next-generation fiber networks, as well as network facilities in underserved and unserved areas.

But the need for investment also applies to *existing* networks, where carriers are consistently adding capacity, speed, and new capabilities and service offerings. Increased intelligence and capabilities for networks will become even more essential as the Internet and other broadband services continue to evolve and are put to more uses (e.g., the Smart Grid). As described in more detail below, networks now must include myriad, sophisticated capabilities. For example, networks must be able to defend against denial of service and other forms of cyber-attacks – security capabilities that cannot be met by intelligence only at the edges. The conception of networks as “dumb pipes” was and is simply mythical – networks are the enabling technology for the Internet. So, while continued investment is important in all parts of the ecosystem, continued network investment is critical to the Internet's continued success.

As of now, broadband access providers have been and plan to continue making just such investments. According to one recent study, broadband providers invested more than \$64 billion in 2008 to preserve, upgrade, and extend their networks.³⁸ Verizon alone has been spending in the neighborhood of \$17 billion per year to build, maintain, and protect the health of its networks. (Products Decl. ¶ 7.) Indeed, Verizon invested more in capital expenditures between 2004 and 2008 – over \$80 billion – than any other company in the United States in any industry, and in 2009 it continued to be one of the largest investors in capital expenditures. The Columbia Institute for Tele-Information (“CITI”) survey commissioned by the National Broadband Plan Task Force concluded after examining just “publicly announced broadband network deployments” that capital expenditures for broadband networks in particular are “high, at about \$30 billion per year, which is about \$100 per capita, or \$300 per household. Over the six years 2010-2015, this will account for \$182 billion of additional investment.”³⁹ Although wireless investment will account for an increasing portion of this total, the CITI survey estimates that more than half of the investment during this time period will be on the wireline side (i.e., cable and traditional telecommunications carriers). And that investment is expected to focus primarily on “increasing broadband capacity and speed in currently served areas.”⁴⁰

It should be evident that reducing the incentives for broadband providers to make these investments would harm consumers. To the extent that providers made fewer investments to

³⁸ See Patrick S. Brogan, *The Economic Benefits of Broadband and Information Technology*, 18 Media L. & Pol’y (2009) available at http://www.nyls.edu/user_files/1/3/4/30/84/187/245/Brogan,%20SPRING%202009,%2018%20MEDIA%20L.%20&%20POL%20%80%99Y.pdf.

³⁹ Robert Atkinson and Ivy Schultz, *Broadband in America, Where It Is and Where It Is Going (According to Broadband Service Providers), Preliminary Report Prepared for the Staff of the FCC’s Omnibus Broadband Initiative*, Columbia Institute for Tele-Information, at 5, 68-69 (Nov. 11, 2009) (emphasis added) (hereafter *CITI*).

⁴⁰ *Id.* at 66, 70.

deploy new networks or extend existing ones to new areas, consumers would have fewer (or no) choices of broadband providers and would suffer all the attendant harms of less competition, such as higher prices and lower service quality. Even in areas where networks already exist, the loss of investment would mean less capacity, slower speeds, and less capable networks than would otherwise be available.

Economic literature is replete with findings that inappropriate regulation can adversely affect consumer welfare by harming innovation and delaying the expansion of output. (Becker/Carlton Decl. ¶¶ 48-50.) As the Department of Justice noted in its recent comments in connection with the national broadband plan, regulation – and in particular price regulation – can “stifl[e] the infrastructure investments needed to expand broadband access.”⁴¹ Just those types of harms would occur here. Internet services are an example of a “systems service” in which several different components (e.g., networks, devices, and applications) interact with and depend on each other. (Katz Decl. ¶ 26.) Technological progress in the system as a whole depends on investment and innovation in all parts of the system. As the NTIA noted in comments recently submitted to the Commission, “the 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.”⁴² To take just one example, applications and content involving HD-quality streaming video require networks that have the capacity and

⁴¹ Comments of Department of Justice, GN Docket No. 09-51, at 28 (filed January 4, 2010) (“*DOJ Broadband Comments*”).

⁴² Comments of NTIA, GN Docket No. 09-51, at 2 (filed January 4, 2010) (“*NTIA Broadband Comments*”).

network management capabilities needed to deliver that content without significant latency, jitter, or other quality problems. Thus, regulations that caused network providers not to make the investments needed to ensure the availability of such capacity and capabilities would not only harm the network directly (e.g., less security), but also have the effect of reducing innovation in other parts of the Internet ecosystem and foreclosing – as a practical matter – those applications or services requiring the additional capabilities.

Therefore, a key question for the Commission is how to ensure that it maintains and increases incentives for investment. Like any other firm, a network provider's decision to invest depends on whether the business case can justify a particular level of investment given the risks entailed. As noted above, revenues from the fees that consumers pay to use traditional Internet access services that enable consumers to go where they want and do what they want online are a critical component of the business case for broadband investments. The revenues from these fees paid by consumers for Internet access services alone, however, are not sufficient to justify the required ongoing investment. (Products Decl. ¶ 7.) Network providers must be able to develop and offer additional innovative services – whether private network offerings or those that may be integrated with Internet content – that help differentiate themselves in the market and provide an opportunity to compete for additional revenue streams to support the business case for broadband deployment. The flexibility to offer such new services is critical to justify continued investment to deploy and to expand capacity.

Conversely, if providers are not permitted to offer such services, they will not be able to justify the needed levels of investment to deploy and to increase capacity, and innovation will suffer in all parts of the Internet ecosystem. Indeed, network providers would then have a perverse incentive to keep capacity scarce, because less available capacity would lead to higher

prices for network access and allow them to make up for revenues they could not collect from the additional services that were barred. And, of course, if network providers are not permitted to offer and charge for additional services, then the full weight of the higher prices necessarily would have to be borne by consumers.

In light of this reality, it is critical to preserve the ability that network providers currently have to offer differentiated services and provide choices to customers *in addition* to continuing to offer consumers traditional Internet access service that lets them access all lawful content. Offering such services does not deny consumers the option of choosing traditional Internet access services, but instead expands the range of choices. Both with respect to more traditional Internet access services and additional services, competition thrives and consumers benefit when network providers have the flexibility to experiment with and offer differentiated products and different business or pricing models that may better serve consumers and that permit the continued robust investment needed to build out broadband. The Commission should encourage such flexibility – not throw obstacles in its path.

The benefits to consumers of such an environment are manifest. Broadband access providers, including Verizon, have developed, and are continuing to develop, various services and products that provide consumers with more choices, while supporting innovation and investment throughout the ecosystem:

Broadband Providers' Differentiated Products and Services. In some cases, network providers are offering their own differentiated products and services. For example, Verizon offers services such as FiOS TV – a managed video service delivered on a private network basis that includes both linear programming and video on demand. (Products Decl. ¶ 13.) Customers clearly have benefited from the introduction of this and other competitors to cable television,

which has led to increased choices (e.g., expanded programming options) and the development of innovative services such as “Widgets” that enable customers to access Internet content and applications like Facebook and Twitter over their televisions. Over time, additional integration of Internet content is likely to continue, thus increasing the choices available to consumers, and further blurring the lines between private network services and Internet content. Verizon’s ability to offer FiOS TV was critical to the business case for the underlying fiber deployment, which in turn has led to far faster and higher quality broadband Internet access service. (*Id.*) Broadband providers also offer a number of other private network services. For example, Verizon sells enterprise business customers “private IP” services that allow them to deliver data over Verizon’s private IP network with the flexibility to control the priority and security afforded that traffic. (*Id.* ¶ 8.) Verizon and others also offer a variety of differentiated services in the wireless context. For example, in 2007 Verizon launched V CAST Mobile TV, the first mobile TV service using Qualcomm’s MediaFLO USA network, and in 2008, AT&T launched its own mobile TV service on MediaFLO service. In addition to these existing services, absent rules barring them from doing so, broadband providers could develop and offer other differentiated or specialized alternatives to traditional Internet access to satisfy consumer needs, such as simplified “storefronts” or other interfaces designed for seniors or others who are less comfortable with computers, kid-safe services that provide access to a subset of Internet content, or Internet services optimized for particular purposes such as gaming or streaming video. (*Id.* ¶ 16.)

Differentiated Offerings Developed in Partnership with Third Parties. Network providers also have developed differentiated offerings in conjunction with third-party application and content providers, which has fostered innovation by both network providers and these third-

party partners and filled consumer demands that otherwise might have gone unmet. Application stores, for example, provide an easily accessible, managed platform from which consumers can select among a wide range of innovative third-party applications and content. These types of arrangements benefit all parties – consumers who can choose among different offerings that can be easily integrated into their devices, the third-party developers who get easy access to consumers and revenues that fund and reward innovation, and network providers who can draw more customers and increase revenues that can be used to fund broadband investment. (*Id.* ¶ 18.) Indeed, the only players who may not benefit are established content and application providers, which face increased competition from start-up and other small competitors who otherwise might never have had a chance to reach a significant audience. Network providers work with third-party partners in numerous other ways as well. For example, numerous wireless devices come pre-loaded with default applications that are optimized for use with the particular device and network (e.g., Google Maps on the iPhone). And providers are increasingly offering “storefronts” at which they provide selected content and applications from third parties in easily accessible and usable form.

Other Products and Services That Help Third-Party Content and Application Providers Better Compete. In addition to offerings such as application stores and other platforms for third-party applications and content, network providers also offer other services to content and application providers that can help them better serve customers and effectively compete with incumbent providers such as Google, which already have extensive private networks, data centers, and other facilities. Examples include Verizon’s Partner Port program, which allows content owners to directly connect their servers or storage devices to the Verizon network and bypass the traditional backbone peering system, allowing faster and more reliable delivery. (*Id.*

¶ 26.) Many providers also offer caching services to help improve end-users' experience in accessing web content. These arrangements – which compete with similar arrangements and practices of established content delivery networks and caching providers such as Akamai – help application and content providers, but also customers who benefit from the resulting innovative products and services and increased competition. (*Id.*)

Innovative Pricing and Business Models. In addition to new products and services, consumers also benefit from the ability of network providers to experiment with and offer different pricing and business models. For example, ad-supported services could help promote adoption of broadband Internet access services by lowering (or even eliminating) subscription fees. (*Id.* ¶ 29.) A content provider might pay a fee for each subscriber to the broadband access service provider, and, because the access service would be partially (or perhaps even wholly) ad-supported in much the same way as other Internet services, the charge to the consumer for such services could be lower. Consumers also may prefer a provider to offer a variety of pricing options such as a “standard” service and an alternative that offers higher-quality prioritized content. Traffic-sensitive pricing also can be beneficial to many consumers and economically efficient: high-volume users impose costs on the system, and forcing those who cause such costs to pay for them can be more fair to users as a whole, send the right price signals, and create the appropriate incentives to use services and networks efficiently. (Becker/Carlton Decl. ¶¶ 57, 62; Katz Decl. ¶¶ 46-47.) Similarly, as discussed in more detail below, consumers could benefit if online content and service providers were able to pay network providers for enhanced quality of service options, such as faster delivery when downloading high-definition video or other large files. Price regulation that prohibited such arrangements would force all of the costs of network deployment onto the shoulders of consumers. There is no reason to believe that today's pricing

practices represent the most efficient outcome or that they will continue to do so as technology and consumer demands change.

Quality of Service Measures. Network providers also need the flexibility to be able to improve the customer experience through quality of service measures such as prioritization of latency-sensitive traffic. Verizon currently offers business customers the ability to prioritize different types of traffic on their broadband Internet access circuit between the customer's premise and Verizon's edge router. The increasing emergence of "telemedicine" services will depend on the ability of network providers to ensure a certain level of service quality without which such services would not be viable and indeed could endanger patients. (Products Decl. ¶ 30.) High definition video conferencing and other services that could benefit customers also may not work, or work less well, absent quality of service measures. As discussed below, the need for quality of service measures can be of particular importance in the wireless context, given its technological constraints. For example, the further development of mobile commerce will require reliable, real-time delivery of payment and other transaction information. (*Id.* ¶ 32.) Quality of service measures can make possible services that otherwise would not be attractive or feasible, without degrading other non-latency-sensitive services in any meaningful way.

In these and other ways, the public Internet has thrived precisely because network providers and all other parts of the ecosystem have been free to invest and innovate in a variety of approaches, all driven by the goal of meeting customer needs. The Commission and other policymakers should leave in place the existing market-driven incentives that have worked so well, particularly in the absence of any demonstrated problem. Conversely, they should avoid enacting rules and policies that will, no matter how well-intentioned, have the unintended

consequence of discouraging investment and innovation and, as a result, undermine the success of the Internet.

B. The Commission Should Promote Informed Consumer Choice.

Rather than adopting prescriptive rules, the Commission can better ensure the continued growth and success of all parts of the Internet ecosystem by promoting a framework that focuses on enabling consumers to make informed decisions about the services available to them, so that those decisions can then drive the continued evolution of the broadband ecosystem to better meet consumer needs. As the Commission noted in its *NPRM*, “access to accurate information plays a vital role in maintaining a well-functioning marketplace that encourages competition, innovation, low prices, and high-quality services.” *NPRM* ¶ 118. Transparent and meaningful disclosures to consumers enable them to make educated choices and thereby facilitate competition.

The Commission should encourage the development of best practices, industry self-regulatory principles, and similar guidelines to promote the quality and usefulness of information available to consumers. Providers typically already are disclosing key terms and conditions related to use of their services. Indeed, the highly competitive market for broadband services means that providers have a strong incentive to develop and maintain a reputation for treating customers fairly – which includes providing clear and accurate information that is material to consumers in choosing what products and services to use. Moreover, the absence of any regulatory prescription for what disclosures are required gives providers the flexibility to respond to consumer feedback and disclose the information that is most meaningful and relevant to their services and to try different and innovative ways of delivering and improving those disclosures.

A focus on informed consumer choice also will help deter providers from adopting network management or other practices that are anticompetitive and harm consumers. Indeed,

the old adage that sunshine is the best disinfectant has proven to be true in this case as well, as providers are disciplined by the competitive market and the need to retain and add customers by responding to consumer demand. In both the *Comcast* and *Madison River* examples to which the Commission points, the provider had not previously disclosed that it was blocking specific applications desired by users, and it ceased or altered its practices once they were disclosed. Thus, to the extent a “problem” exists at all, increased transparency will address it.

Importantly, the need for transparency applies to providers throughout the broadband space – whether providers of networks, applications and content, or devices. In particular, application and content providers should be expected to 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 algorithms that block particular types of content or applications – a practice that can clearly implicate a user’s ability to access lawful content and applications as a practical matter.

Simply put, a policy framework that is focused on promoting investment and innovation that leads to more consumer choices and disclosures of meaningful information that allows consumers to make educated decisions among those choices is the best way for the Commission to ensure the continued success of the Internet.

V. Rather Than Encouraging Consumer Choice, Innovation, and Investment, the Proposed Rules Would Be Affirmatively Harmful To Consumers’ Interests.

The proposed rules would have the unintended effect of thwarting the continued growth and development of the Internet. Indeed, they would be inimical to the goals the Commission has recognized as national priorities in the context of the National Broadband Plan: they would

deter investment in the deployment of broadband facilities, discourage broadband adoption, and reduce the capabilities of broadband networks to support critical new services such as the Smart Grid, telemedicine, and cybersecurity.

A. *Any Prescriptive Rules Will Have Unintended Consequences that Harm Consumers.*

While, as discussed below, the particular rules that the Commission has proposed would result in significant harms, in fact *any* prescriptive rules applied to network providers inevitably will have unintended consequences that harm consumers. This is true for at least three reasons.

First, rules in this area would inevitably be vague and ambiguous, and the resulting uncertainty would deter investment and innovation and adoption of practices that would benefit consumers. As the Commission itself appears to recognize, any rules it adopts would have to be highly general, because specific rules could not even capture the wide range of *existing* variations in technologies, services, and other market characteristics and attempting to do so would serve only to freeze innovation in its tracks. *See, e.g., NPRM* ¶ 137. And specific rules, in any event, would become quickly outmoded due to technological and market changes.

But the generality of any rules will lead to uncertainty and regulatory risk about what practices are and are not permissible. The proposed rule permitting “reasonable” network management, for example, requires a provider to repeatedly determine whether a particular practice is “reasonable” – a question that will not have a determinate answer in many cases. The uncertainty – and the attendant risk that the Commission will later decide the provider guessed wrong and impose liability – means that the rules will deter new innovations, as providers will be less willing to develop a new service or capability if they believe there is a chance it will be deemed unlawful. That, in turn, will also reduce investment as obtaining the required returns to cover the investment will be less certain.

Similarly, the uncertainty engendered by highly general rules may cause a provider to forego network management practices that would otherwise benefit consumers. For example, if a provider is facing an emerging security threat and has developed a technical response, but that response will have the unintended but foreseeable effect of blocking a small amount of lawful content, how will the provider know whether the FCC will decide, after the fact, that the response was reasonable or was discriminatory? Even the need to address that question with the required cohorts of lawyers pondering over indefinite standards with unknown consequences inevitably will slow response times. And at least in some cases, the regulatory risk may cause the provider not to adopt the response or to change it in a way that renders it less effective and thereby harm its users.

To be sure, “reasonableness,” “nondiscriminatory,” and other general standards are not uncommon in the law. But they are particularly problematic here, in the context of an extremely dynamic environment where new technologies emerge constantly, customer usage patterns evolve quickly, and security threats develop at a moment’s notice. In this environment, network providers need the breathing room to experiment and try new approaches to address difficult technical issues or to pursue innovative business models without the overhang of regulatory liability. Moreover, this is not a problem that can be remedied by the results of the case-by-case adjudication envisioned by the Commission. While such a process is preferable to detailed prescriptive rules that would flash freeze innovation, it still cannot hope to keep pace with the rapid change that characterizes the Internet ecosystem. In the time it will take for the Commission to decide whether a particular practice was in compliance with the rules, the very practice at issue may well be outmoded. And even if not, the rapid changes in the Internet will mean that decisions will quickly lose relevance and not contribute to predictability.

Even apart from the generality of the applicable standards, rules in this area inevitably will be ambiguous and unclear. The fourth proposed rule here, for example, is entirely opaque – what does it mean to say that a broadband access provider “may not deprive any of its users of the user’s entitlement to competition among network providers, application providers, service providers, and content providers”? Other than by permitting access to lawful content and applications – a result required by the other proposed rules – how could a broadband access provider have any role in “depriving” a user of competition? Even the Commission does not seem to know what the rule is intended to prohibit, since it asks whether the rule has any independent content at all. *See NPRM* ¶ 102. Codifying a rule with no clear content obviously would introduce needless uncertainty and risk and simply be an invitation for future regulators to read into the rule their own agendas, or a hook for third parties pushing their own political or parochial agendas to bring endless complaints. Similarly, the proposed rules that would require broadband access providers to permit users to connect any lawful device (as long as it does not harm the network) and run any lawful application leave many questions unanswered. Presumably, these rules would not apply to devices or applications that are technically incompatible with the network or require network operators to modify their networks to work with any possible device or application (or, even further, to optimize the performance of such devices and applications), but the Commission does not say any of that.

Similarly, the definition of “reasonable network management” allows a provider to prevent the transfer of “unlawful content” and to prevent the “unlawful transfer” of any content. Presumably, these definitions would insulate a broadband Internet access provider from liability in the context of, for example, blocking the transfer of proscribed content such as child pornography or transfer of adult content to minors. However, experience shows that the “lawful”

status of much available content is less clear. For example, an Apple application “Beauty Meter,” consisting of user-submitted photos, carried a photo of a topless 15-year old girl.⁴³ The application “I am Rich,” which did nothing except display a red gem on the iPhone screen, was sold to consumers for \$999.99 for a brief time before Apple pulled it from the App Store.⁴⁴ Is a broadband Internet access provider to assume that these definitions mean that it can only decline to transfer content that clearly violates federal or state law? Or, does it have discretion to take actions to prevent transfer of content that it deems harmful or that simply poses a risk of legal liability, either for the provider, the developer or the consumer?

These types of ambiguities and unanswered questions will be inherent in any rules the Commission adopts – particularly in a nascent and dynamic environment such as the Internet.

Second, general prescriptive rules of the kind the Commission proposes miss the mark. They sweep much too broadly and would prohibit or restrict practices that are procompetitive and pro-consumer. As discussed below, for example, by prohibiting *any* form of discrimination, the proposed rules would preclude innovations in pricing and business models that could provide consumers more choices and benefits. The Commission could avoid such overinclusiveness only by adopting narrowly targeted rules that proscribe only conduct that is shown, on a case-by-case basis, to harm competition and therefore consumers – but, for the reasons discussed above, such specific targeted rules likely would become outmoded in short order.

⁴³ See Jane McEntegart, *Apple Pulls App Containing Child Porn*, Tom’s Guide (July 2, 2009), available at <http://www.tomsguide.com/us/Apple-Beauty-Meter-App-Store,news-4162.html>.

⁴⁴ See Dan Frommer, *Apple’s iPhone-App-Approval Mouse Falls Off Treadmill: Buy the \$1000 App that Does Nothing (AAPL)*, The Business Insider: Silicon Alley Insider (Aug. 5, 2008), available at <http://www.businessinsider.com/2008/8/apple-s-iphone-app-approval-mouse-falls-off-treadmill-buy-the-1000-app-that-does-nothing-appl->.

At the same time, by imposing limits only on broadband access providers and ignoring the power exercised in the Internet ecosystem by dominant Internet incumbents such as Google and Microsoft, the proposed rules also would harm competition because they are underinclusive. There is no basis to enact rules that protect particular competitors or classes of competitors such as application and content providers.⁴⁵ Yet the proposed rules would treat broadband network service providers differently than everyone else in the broadband ecosystem, and, as a result, distort competition by artificially selecting winners and losers in the marketplace and create artificial—and unproductive—boundary lines. (Katz Decl. ¶¶ 31-39.) Such restrictions would limit the ability of network providers to compete by innovating and offering differentiated services and utilizing new business or pricing models. Public policy is unlikely to serve consumer interests when it substitutes regulatory mandates for network providers’ own business judgments regarding which products to offer consumers and what business models to pursue. (*Id.* ¶ 36.) The rules also would harm competition among application and content providers by potentially inhibiting the ability of network providers to offer services and platforms (such as application stores or caching services) that enable smaller application and content providers to better compete against more established players – including many proponents of the proposed rules such as Google and Amazon. (Products Decl. ¶ 26.)

In the absence of regulatory restrictions, network providers have strong incentives to offer such services because, as discussed above, greater choices and competition among

⁴⁵ See, e.g., *Atlantic Richfield Co. v. USA Petroleum Co.*, 495 U.S. 328, 338 (1990) (“The antitrust laws were enacted for ‘the protection of competition, not *competitors*.’”) (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962)); see also *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993) (“The law directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself. It does so not out of solicitude for private concerns but out of concern for the public interest.”).

application and content providers makes their broadband access platforms more valuable to consumers and accordingly helps attract and retain customers. Yet by potentially prohibiting network providers from offering some such services, while at the same time not imposing *any* restriction on all other members of the Internet ecosystem, the proposed rules would distort competition. To take just one possible example, a new competitor to Google Voice could face a double handicap: it might not be able to obtain services from network providers that would enable it to ensure the necessary quality of service to consumers that Google would have the resources to provide on its own (particularly given its own extensive network facilities), and Google in its capacity as a search engine would be free to block the competitor's site from its search results, severely handicapping the competitor's ability to reach customers. There is no basis to limit competition by singling out only one set of entities for proposed regulatory restriction.

Third, adoption of any rules inevitably will lead to “regulatory creep” and impose significant new costs on consumers. For example, the Commission's proposed rules already impose one form of price regulation by prohibiting network providers from charging content and application providers anything for quality of service and other enhancements. As this inevitably leads to increased prices for consumers – who will have to bear all network costs – there will be cries for regulating those subscription prices as well. Indeed, Free Press – one of the most prominent proponents of net regulations – has already called for restrictions on tiered pricing based on data usage.⁴⁶ But usage-based pricing is one of the few ways that a wireless broadband Internet access provider has to manage capacity demands and prevent network overload that might arise from large bandwidth applications, new and increased roaming obligations, and/or

⁴⁶ See, e.g., Free Press, “Stop the Internet Rip-Off of 2009,” *available at* <https://secure.freepress.net/site/Advocacy?cmd=display&page=UserAction&id=327>.

restrictions on spectrum availability.⁴⁷ That is just one example of the inevitable expansion of any rules the Commission adopts now, as proponents of regulation – commonly organizations that make no meaningful investment and provide little employment – point to any and all “abuses” or potential abuses as justification for additional restrictions, ranging from the prices paid by end users to how network capacity is allocated and used to what content may be legitimate. And the costs imposed on consumers by these creeping regulatory intrusions will only be increased by the complex infrastructure of procedures that inevitably will grow to enforce, implement, and administer the rules. The result will be to impose inefficiencies that delay, deter, and ultimately limit innovation, while increasing transaction and regulatory costs – all ultimately to the detriment of consumers who will bear those costs.

Verizon’s experience in developing its iobi call management application – which allows subscribers to perform functions such as shifting calls in real time to different phone numbers, pre-scheduling call forwarding, and integrating address books and calendars – is illustrative. In that case, Verizon spent over a year and devoted significant resources to design the service in a manner consistent with the Commission’s morass of rules and precedents delineating the distinction between information services and telecommunication services, resulting not only in substantial delay and expenditure of resources, but also an inefficient service design. (Products Decl. ¶ 10.)

Economic studies involving technologies such as telephone service, television programming, cable television, wireless services, information services, and converged telephone/video services show that attempts to regulate new or rapidly changing technologies carry significant risks of harm to consumer welfare. (Becker/Carlton Decl. ¶¶ 48-50.) For

⁴⁷ See, e.g., Second Report and Order, *Service Rules for the 698-746, 747-762, and 777-792 MHz Bands*, 22 FCC Rcd 15289, 15363 ¶ 222 (2007).

example, one study estimates that delays in the introduction of voice messaging services resulting from line-of-business restrictions imposed on the former Bell companies following the AT&T divestiture resulted in multi-billion losses to consumers. (*Id.* ¶ 50.) And delays in the introduction of cellular telephone service due to “regulatory indecision” and the licensing procedure adopted by the Commission cost consumers close to \$100 billion. (*Id.*) Adopting prescriptive rules such as those proposed here that inhibit investment and innovation threaten to inflict equally large (indeed, larger) welfare losses on consumers.

B. Applying Net Regulation To Wireless Broadband Services Would Be Especially Unjustified and Harmful To Consumers.

The Commission’s wireline broadband principles were not designed to apply to wireless services,⁴⁸ and neither they nor the proposed rules can rationally be extended to wireless broadband services, which are unique in several important respects.

First, wireless services are subject to particularly intense and growing competition, with ongoing investment and innovation that has brought tremendous benefits to consumers. As discussed above, wireless broadband services are highly competitive. Most consumers have access to 3G services from multiple providers, including the four nationwide carriers and often large or small regional facilities-based providers. Providers compete along many dimensions such as pricing of service packages and devices, different calling plans, innovative applications and features, and network quality and coverage. The result has been falling prices and increasing capabilities. And that competition will only increase with the massive investments carriers are making in 4G networks, which will bring greater speeds and capabilities.

⁴⁸ *Id.* ¶ 202 n.463 (“[T]he Commission has not yet made a finding regarding whether to apply open access requirements to wireless broadband services generally, and in this *Order*, defers that determination to the appropriate pending proceedings.”).

This competitive market has resulted in extraordinary innovation that has led to a broad array of consumer choices. Smartphones have proliferated, ranging from the Droid to the iPhone to the Palm Pre. Each of the national carriers offers upward of 14 different smartphones that can be used for mobile broadband service. New business models such as application stores have enabled consumers to select from an exploding number of applications that are customized to work with their devices and extend their functionality. Wireless broadband providers work closely with device manufacturers and application and content providers to develop customized and optimized offerings designed to meet consumer needs. Moreover, as discussed above, the wireless broadband marketplace is moving toward greater openness, as exemplified by Verizon's Open Development program, which allows users to attach any wireless device that meets its published technical standards and to use any application on that device; 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 Verizon's 4G wireless network; and Google's recent introduction of its own handset that consumers will be able to use with any compatible network.⁴⁹

The result is exactly the type of environment that the Commission should want – a highly competitive and dynamic market characterized by constant innovation and investment that is leading to an ever-expanding array of consumer choices. Consumers can, if they choose, use one of many devices (including one of their own choosing unaffiliated with their wireless service provider) to access lawful content and applications on the Internet using a built-in web browser. But they can also choose Android-enabled devices that allow customers to access a marketplace of unaffiliated third-party applications or more managed options such as the iPhone, which offers

⁴⁹ See Jessica E. Vascellaro & Niraj Sheth, *Google Opens New Front in Smart Phone Battle*, Wall Street Journal, Jan. 6, 2010.

tens of thousands of applications that have been prescreened for security and other purposes. And they also can purchase a more limited single purpose wireless device such as the Amazon Kindle, which is focused on providing access to particular content.

Given the diversity of consumer preferences, consumer welfare is maximized when consumers are free to choose from among a range of different types of user experiences. The wireless broadband industry provides consumers a wide array of alternatives that offer varying degrees of openness with regard to the hardware and software that are available as different firms have pursued different business models. That range of choices benefits consumers, both by offering a range of options today and by allowing for the testing of alternative approaches to see which will be the most successful in meeting consumer demands in the future. (Katz Decl. ¶¶ 31-39.)

It surely cannot be the case that consumers would benefit if the market became more homogenized and they had *fewer* choices. Yet that is what application of the proposed rules to wireless broadband services portends. Wireless providers have long entered into cooperative development efforts and deals to feature particular applications on a particular device or service (e.g., the provision of Google maps on the iPhone) – deals that could be deemed discriminatory under the proposed rules even though they are a manifestation of carriers in competitive markets trying to meet consumer demands.⁵⁰ Likewise, the rules could call into question whether wireless broadband service providers could work with device manufacturers and content and application providers to offer a device aimed at a particular audience that provided more limited or mediated access to content and applications (e.g., a device and service focused on children).

⁵⁰ See, e.g., *NPRM* ¶ 174 (“Does the quality of a user’s experience with an application vary depending on whether the application is downloaded onto the user’s device or whether it is accessed in the cloud using the device’s Web browser?”).

The prohibition on payments from application and content providers even raises issues about the legality of existing application stores, in which application providers and wireless carriers typically split fees – yet the advent of such stores clearly has benefited consumers, as evidenced by their exploding popularity.

It defies explanation why the Commission would move to impose regulations in the face of a wireless broadband marketplace that has every characteristic the *NPRM* professes to want to foster. That is doubly true given the absence of any evidence of a problem – the Commission cannot point to even a *single* example in the wireless context of inappropriate blocking of content or some other arguable abuse that might make regulation necessary. Instead, the wireless marketplace has been moving toward greater openness – driven not by regulation, but market forces and customer demands.

A second reason extending the proposed rules to wireless broadband services would make no sense and would be particularly harmful is that such services face unique technological and operational constraints. These constraints increase the costs of regulations that hinder efficient network management practices, which are particularly important to the provision of wireless broadband service. Rules that imposed a blanket prohibition on discrimination while allowing “reasonable” network management would inevitably create uncertainty and confusion as to whether particular network management practices were permissible. Thus, the costs of extending net neutrality rules to wireless broadband would be particularly high.

Wireless broadband services face technological and operational constraints arising from the need to manage spectrum sharing by a dynamically varying number of mobile users at any

time.⁵¹ Thus, unlike, for example, cable broadband networks, where a known and relatively fixed number of subscribers share capacity in a given area, the capacity demand at any given cell site is much more variable as the number and mix of subscribers constantly change in sometimes highly unpredictable ways. (Network Mgmt Decl. ¶ 17.) For example, as a subscriber using a high-bandwidth application such as streaming video moves from range of one cell site to another, the network must immediately provide the needed capacity for that subscriber, while not disrupting other subscribers using that same cell site. Of course, the problem is magnified many times over as multiple subscribers can be moving in and out of range of a cell site at any given moment. Moreover, the available bandwidth can fluctuate due to variations in radiofrequency signal strength and quality, which can be affected by changing factors such as weather, traffic, speed, and the nearby presence of interfering devices (e.g., wireless microphones). (*Id.*)

These problems compound those resulting from limited spectrum. As the Commission has repeatedly recognized in proclaiming an upcoming spectrum crisis, “as wireless is increasingly used as a platform for broadband communications services, the demand for spectrum bandwidth will likely continue to increase significantly, and spectrum availability may become critical to ensuring further innovation.”⁵² A wireless carrier cannot readily increase capacity once it has exhausted its spectrum capacity. (Network Mgmt Decl. ¶ 17.) Thus, wireless broadband providers are left to acquire additional spectrum (to the extent available) or take measures that use their existing spectrum as efficiently as possible, which they do through a combination of investing in additional cell sites and network management practices that optimize network usage and address congestion so as to provide consumers with the quality of service

⁵¹ Because fixed wireless services frequently share the same bandwidth resources as mobile services, the constraints imposed by mobile wireless services also affect fixed wireless customers.

⁵² *Wireless Innovation NOI* ¶ 20.

they expect.⁵³ The problems resulting from limited spectrum would only be multiplied if the Commission were to adopt proposals to impose spectrum caps that limit new spectrum acquisitions or data roaming requirements that would allow third-party providers' customers to occupy a wireless broadband provider's spectrum resources.⁵⁴ Similarly, lack of pricing flexibility would severely restrict the ability of a spectrum-limited wireless broadband provider to manage capacity and earn a sufficient return for investment in whatever technological improvements might be available to make up for the limited spectrum resources.

Given these unique characteristics of wireless services, applying even the existing wireline principles to wireless broadband services would be unworkable. For example, wireless devices have long been by Commission regulation an integrated part of the network service that carriers provide. *See, e.g.*, 47 C.F.R. §§ 1.903(c), 20.18, 20.19. Wireless providers must ensure that devices comply with technical rules and public interest obligations such as E911 and CALEA, which requires additional oversight and network management. (Network Mgmt Decl. ¶¶ 17, 24-25.) Wireless network providers also work closely with device manufacturers to optimize devices for use with their particular networks. Although, as described above, Verizon and other operators permit users to attach independent, technically compatible devices to their networks, they may not be able to utilize all the device's features without some optimization.

Devices and applications offered by a network are generally the result of an extensive

⁵³ These constraints also impose some necessary limits on what types of equipment may be connected to a wireless network. For example, a server or other hardware that uses many times the capacity of a handheld device (e.g., the SlingBox) would quickly consume the capacity and resources of a cell site, leaving other users without quality service.

⁵⁴ *See, e.g., Comments of Rural Telecommunications Group*, WT Dkt. 09-157, 09-51 (filed Sept. 30, 2009) (filed in response to *Wireless Innovation NOI*); Rural Telecommunications Group, Inc., *Petition for Rulemaking To Impose a Spectrum Aggregation Limit on all Commercial Terrestrial Wireless Spectrum Below 2.3 GHz*, RM-11498 (July 16, 2008); Report and Order and Further Notice of Proposed Rulemaking, *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, 22 FCC Rcd 15817 (2007).

development and testing process that allow them to work more efficiently together and take greater advantage of the network's capabilities. (*Id.* ¶ 25.) It is unclear whether the rule requiring that users be permitted to connect and use all lawful devices (as well as the nondiscrimination rule) would restrict or prohibit these types of practices.

Applying the new proposed nondiscrimination rule would only magnify these problems. For example, to operate the network efficiently and optimize data throughput, operators may use sophisticated queuing and scheduling algorithms that send more packets of data to users during times of good signal-to-noise conditions and less when signal-to-noise conditions are bad. (*Id.* ¶ 20.) They also may restrict applications and devices that can degrade the service of other users, such as applications that keep an access connection alive for more than is needed for typical usage through the use of “keep alive” and retry functions, which tie up available resources without providing any benefit to customers. (*Id.* ¶ 22.) It is unclear whether the proposed nondiscrimination rule would restrict such practices.

Likewise, network operators must actively manage Media Access Control (“MAC”) addresses – individual radio channels assigned to each active user connected to a particular cell site. When a cell site's inventory of MAC addresses is all assigned at a particular time, other users are unable to establish connections. Because some applications and devices may hold onto a MAC address, once assigned, even when they are not actively being used to transmit data to the network, the network may need to drop the idle application to free up a MAC address for an active user. (*Id.* ¶ 23.) If the Commission adopted the proposed rules, however, the purveyor of an application that is designed to keep access connections alive for lengthy periods of time or to hold on to MAC addresses might argue that restricting such applications amounts to blocking access to or discriminating against the application. More generally, the rule could be interpreted

to require wireless network providers to allow all “bandwidth hog” applications at any time, to the detriment of other users who would be blocked from the network or would receive lower quality service.

Finally, it would make particularly little sense to risk the significant harms from net neutrality rules at this juncture in the wireless industry’s development. Carriers are just now embarking on the massive investments needed to deploy 4G technologies, which will provide greater speeds and additional broadband pipes into the home. Adopting the proposed rules would call into question whether network providers could earn sufficient returns to justify this investment – a result that would discourage 4G deployment and the resulting innovation, competition, and broader benefits for the United States economy that it will create.

Moreover, the nature of the technical and operational challenges that will be posed by new 4G networks – and what network management practices might be needed – is inherently unknown at this point. For example, it is impossible to know what new applications and services might be developed given the new capabilities of 4G, what capacity they will require, what usage patterns will develop among subscribers, what security threats will emerge, and numerous other variables that will help determine what network management practices are needed to provide users with the quality of service they demand. The same is true as to the business models and services that might be most attractive to consumers and economically efficient. Thus, defining the scope of “nondiscrimination,” “reasonable network management,” and all the other categories in the Commission’s proposed rules would be especially infeasible at this time. Given the spectacular success of the wireless market and the absence of *any* evidence of a problem to be solved, extending the proposed rules (or even the existing wireline broadband principles) to wireless would make no sense and could not be justified.

C. The Commission’s Proposed Nondiscrimination Rule – Including Its Unprecedented and Unjustified Introduction of Price Regulation for the Internet – Would Hamper Innovation and Investment and Harm Consumers.

The Commission’s proposed nondiscrimination rule would, for the first time, interject archaic common carriage concepts and price regulation into the Internet. Indeed, the Commission’s proposed rule is extraordinarily broad, going beyond even traditional common carriage regulation by prohibiting *all* discrimination, rather than simply “unjust or unreasonable” discrimination⁵⁵ and prohibiting *all* charges to application or content providers for any kind of service enhancement. In so doing, the proposed rule would go well beyond merely restricting conduct that is affirmatively anticompetitive and therefore harms consumers to reach “discrimination” or differentiation that is pro-competitive and benefits consumers.⁵⁶ As a result, imposing such a rule would serve only to discourage investment and innovation, distort competition, and limit consumer choice.

First, a prohibition on “discrimination” in the Internet context inherently lacks meaning and would be virtually impossible to interpret or apply because different forms of traffic have

⁵⁵ See, e.g., 47 U.S.C. § 202(a) (“It shall be unlawful for any common carrier to make any *unjust or unreasonable* discrimination in charges, practices, classifications, regulations, facilities, or services....”) (emphasis added); *Orloff v. FCC*, 352 F.3d 415 (D.C. Cir. 2003) (finding that Verizon Wireless’ practice of offering different terms to some customers but not others did not violate the prohibition against “unjust or unreasonable” discrimination because, in the absence of a tariffing requirement, giving such concessions to customers was a manifestation of competition and benefitted consumers). While the Commission points to the unqualified nondiscrimination requirements in sections 251 and 271-272 of the Act, *NPRM* ¶ 109, those requirements concerned horizontal relationships between ILECs and their competitors and rested on Congress’s conclusion that ILECs had monopoly power over bottleneck facilities. As discussed above, no such finding could possibly be made here and, in any case, the proposed rule focuses on *vertical* relationships between broadband network providers and application and content providers.

⁵⁶ Even one of the leading proponents of net regulation has previously recognized that a flat ban on any discrimination that “prohibit[ed] *any* differential pricing or conditions” would be “counterproductive” and “overbr[oad].” Letter from Richard Whitt, Washington Telecom Counsel, Google to Marlene Dortch, Secretary, FCC, WC Docket No. 06-150 (Nov. 21, 2007).

long been treated differently. For example, the use of content delivery networks and caching services and differing arrangements between networks for handing off traffic depending on the type of traffic involved mean that not all traffic is treated equally on the Internet today. (Katz ¶¶ 12-15.) Business, government, and other commercial customers have always had the flexibility to negotiate customized deals with providers of broadband Internet access services that can include customized practices concerning network management, security, prioritization, and many other aspects of their services. Similarly, pricing models vary widely, including success-based formulas such as revenue sharing and a wide range of arrangements from flat rate to usage sensitive prices. It is unclear what the Commission is intending to prohibit and, even if were, the Internet marketplace is evolving rapidly and it is impossible to predict what practices or models will best meet customer demand and be economically efficient. Moreover, the Commission itself readily concedes that many types of discrimination are pro-competitive and can provide benefits to consumers, yet the proposed rule makes no effort to distinguish those types of discrimination that are beneficial or benign and to cabin its prohibition to only those actions that can be shown in a specific case to harm competition and therefore consumers. Thus, imposing a sweeping prohibition that is based on, but is even more stringent than, outdated common carriage concepts cannot be justified and will serve only to stifle experimentation and innovation.

Some will no doubt argue that the Commission's proposed rule should be read to require broadband network providers to treat all packets the same regardless of any quality of service needs of the associated application. While putatively neutral in a literal sense, this would have a highly *discriminatory* effect since it would harm quality of service for latency-sensitive applications such as VoIP, streaming video, and telemedicine. Indeed, the Commission appears to recognize as much when it raises the possibility that its proposed rule might entitle "a

broadband provider to protect the quality of service for those applications for which quality of service is important by implementing a network management practice of prioritizing classes of latency-sensitive traffic over classes of latency-insensitive traffic.” *NPRM* ¶ 137. But in the very next sentence it questions whether “such a practice would be difficult to implement in a competitively fair manner,” *id.*, leaving it entirely unclear what the Commission actually intends. Indeed, even the idea of a “class” of service is fraught with ambiguity – for example, does a gaming application that allows players to talk to one another qualify as a VoIP service? In any case, even a rule that required “nondiscrimination” within a “class” of service would harm innovation and reduce consumer choices.

The same uncertainty appears in the context of pricing – indeed, the rule takes the first wholly unprecedented step toward price regulation on the Internet by proposing to flatly prohibit broadband providers from charging a fee to “a content, application, or service provider for enhanced or prioritized access to the subscribers of the broadband Internet access service provider,” and effectively dictating a price of zero for such services. *NPRM* ¶ 106. But it is not clear what concern the Commission is addressing. Its principle against blocking lawful content and applications would already preclude a network provider from refusing to carry content unless the provider paid a “toll” of some kind. Does the Commission mean to ban the various existing revenue models such as success-based formulas in which a broadband access provider shares revenues with an application or content provider? Does the Commission intend to prohibit content distribution networks or content caching providers from purchasing collocation services in provider facilities, or obtaining high-speed connections to provider backbone routers, to facilitate delivery of popular content to that provider’s end users, or to allow such preferential

collocation or connection arrangements only as long as the provider makes them available free of charge?

It is also unclear whether the Commission's rule has any effect on how broadband access providers price services to subscribers. For example, would a usage-sensitive pricing model "discriminate" against high bandwidth applications or websites with rich multimedia content under the Commission's rule on the theory that it would have the effect of discouraging subscribers from using them? Again, the Commission's rule is ambiguous. Adopting any form of nondiscrimination rule is going to raise similar questions and require the Commission to pick and choose what practices and business models it is willing to permit and which it is not. But the Commission should not and cannot predict what models will prove most beneficial to customers and most efficient from an economic standpoint. As the NTIA recently noted, "[i]n view of the difficulty that government has in determining efficient prices, price regulation is likely to stifle investment in broadband infrastructure or to discourage broadband service innovation."⁵⁷

Similarly, the Department of Justice has warned the Commission that "care must be taken to avoid stifling the infrastructure investments needed to expand broadband access. In particular, price regulation would be appropriate only where necessary to protect consumers from the exercise of monopoly power and where such regulation would not stifle incentives to invest in infrastructure deployment."⁵⁸

Second, the nondiscrimination rule, including the express prohibition on *any* charge to application or content providers for enhanced service, would appear to prohibit – or at the very least create significant uncertainty and confusion about – many pricing and business models,

⁵⁷ *NTIA Broadband Comments* at 6.

⁵⁸ *DOJ Broadband Comments* at 28.

services, and network management practices that consumers and application and content providers benefit from today, as well as restrict the introduction of new ones.

Pricing and Business Models. The prohibition on discrimination – and the particularly extreme version proposed here that would prohibit payments by content, application, and service providers in many instances – would inhibit the development of alternative business and pricing models that could be more efficient and benefit consumers. As an initial matter, the proposed prohibition is incoherent. As the *NPRM* elsewhere recognizes, so-called end users are themselves content providers as they increasingly upload content (e.g., a YouTube video).⁵⁹ Presumably, however, the Commission does not intend to suggest that a broadband access provider would be engaging in improper discrimination if it, for example, offered a promotional discount to a particular subset of end users. But its proposed rule could be read to do just that. More generally, the Commission’s rule appears to be based on the premise that price discrimination is inherently harmful. In fact, however, a number of forms of price discrimination promote consumer welfare by, among other things, making products and services more widely available. (Katz Decl. ¶¶ 62-63.) As the FCC’s chief economist has noted, “[p]rice discrimination and related practices like producing products in multiple versions are often a natural way to recover the high fixed costs of information technology.”⁶⁰ Indeed, as noted above, the Commission itself concedes that many forms of discrimination, including price discrimination, can be pro-competitive and benefit consumers. Likewise, the Department of Justice has advised that the Commission “should avoid restricting the ability of providers to offer

⁵⁹ *NPRM* ¶ 99 (“We propose not to adopt a specific definition of ‘content, application, or service provider,’ because any user of the Internet can be such a provider. For example, anyone who creates a family website for sharing photographs could be reasonably classified as a ‘content provider.’”).

⁶⁰ Jonathan B. Baker, “Competitive Price Discrimination: The Exercise of Market Power Without Anticompetitive Effect,” 70 *Antitrust Law Journal*, at 645 n.6 (2003).

new and innovative forms of service packages or pricing policies, or to discount prices to individual users from standard advertised offerings.”⁶¹

In any case, the proposed prohibition on business arrangements between broadband access providers and content/application providers could have the effect that *all* network costs would have to be recovered from charges to consumers in many instances where that otherwise might not be the case. That would effectively constitute a wealth transfer from consumers to application and content providers. It would prevent the development of innovative pricing models that could promote broadband adoption. For example, if service providers were free to pursue “two-sided” pricing business models in which subscriber fees were kept low and additional fees were charged to content providers whose own services were partly or wholly advertising-supported (or subscriber fees were eliminated altogether, akin to the model for free broadcast television), consumers could well benefit. (Becker/Carlton ¶ 65.) There is certainly no a priori reason that such a model is less efficient or would not benefit some or all users, but, depending on how it is interpreted, the Commission’s proposed rule could ban any experimentation, differentiation, and innovation along those lines to the extent the services provided to content and application providers in any way could be said to enhance their access to consumers. The effect would be the same as saying that newspapers and magazines could no longer charge advertisers and instead would have to recover all their costs through subscription

⁶¹ *DOJ Broadband Comments* at 27.

fees – there can be no doubt that the effect would be to cause newspaper and magazine prices to rise and subscription numbers to plummet.⁶²

The proposed rule also is highly inefficient in numerous respects and would perpetuate or cause negative externalities. For example, two-sided pricing in which network providers charged content and application providers for prioritization or other enhancements could send appropriate price signals that provide content and application providers with the incentives to efficiently use appropriate bandwidth compression technologies. (Becker/Carlton Decl. ¶ 62.) Otherwise, high bandwidth services that do not efficiently optimize data compression contribute to congestion and impose costs on users and providers of other services. Moreover, application/content providers that paid for enhanced services presumably could pass along those costs to their customers – a result that would internalize costs that those customers create rather than having them spread among *all* Internet users. Further, 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 – which in turn would permit and foster greater innovation in applications and content that could take advantage of the increased network capabilities. (Becker/Carlton Decl. ¶¶ 21, 62.)

These costs of the Commission’s proposed pricing rule would not be offset by any countervailing benefits. The proposed restriction is apparently motivated by a desire to protect

⁶² See Alfred E. Kahn, Presentation to Federal Trade Commission, at 6 (Feb. 13, 2007), available at <http://www.ftc.gov/opp/workshops/broadband/presentations/kahn.pdf> (net neutrality proponents “fail to comprehend—or choose to ignore—that the market here is “two-sided”—providing Internet content and services to consumers and the attention of consumers to advertisers. It makes no more sense, therefore—and is clearly misguided for consumer advocates—to want to forbid the broadband access suppliers that carry those advertising messages [from] charging the advertisers for access to the public than to require newspapers, television broadcasters or cable companies to obtain their revenues exclusively from readers, viewers or subscribers.”).

“small” application/content providers who allegedly would be less able to pay for prioritized or enhanced services. *See, e.g., NPRM* ¶ 69. But protecting particular competitors or classes of competitors is not a legitimate goal of regulation. And, in any event, the rule would be affirmatively anticompetitive and would lock in the advantages enjoyed by established actors in the Internet ecosystem to the detriment of smaller providers. As noted above, large players such as Google have enormous network infrastructures that allows them to deliver their content in prioritized fashion – investments that smaller players could not make. Similarly, third parties such as Akamai and Limelight offer services through their content delivery networks that enable providers to obtain enhanced, faster delivery of their content. The provision of quality enhancement services by broadband network providers would provide smaller application and content providers an alternative that could offset these existing advantages – a choice that might be more efficient or provide capabilities that others could not. As David Farber and Michael Katz have noted, “[n]o one would propose that the U.S. Postal Service be prohibited from offering Express Mail because a ‘fast lane’ mail service is ‘undemocratic.’ Yet some current proposals would do exactly this for Internet services.”⁶³

Moreover, the Commission’s claim simply assumes that capital markets will not function to provide resources to providers whose business plans and products and services are attractive and would benefit from being able to purchase service enhancements. And it ignores the strong incentives of broadband access providers to ensure delivery of particularly desirable content

⁶³ David Farber & Michael Katz, *Hold Off On Net Neutrality*, Wash. Post, Jan. 19, 2007, at A19.

from any provider – whether large or small – with appropriate quality of service in order to attract customers and compete successfully.⁶⁴

Services. The proposed rules also would call into question existing, highly popular, and beneficial services and again go well beyond prohibiting affirmatively anticompetitive practices that harm consumers. The Commission presumably does not actually intend to prohibit these arrangements, but its sweeping rule could raise questions about them, thereby causing uncertainty and confusion in the marketplace and slowing innovation and investment. And, more generally, there is no clear way to know what would be allowed and what would not, and attempting to solve that problem by creating a laundry list of exceptions would result in precisely the kind of regulatory creep described above and would in any case quickly be overtaken by new innovations and services. For example, the nondiscrimination requirement could, if literally applied, render services such as application stores or Verizon’s Widget Bazaar illegal or impractical to offer. Application stores typically involve payments by application or content providers based on a percentage of revenues they earned. Would such payments be unlawful under the proposed nondiscrimination rule? Further, would a network provider be required to allow *any* third-party content provider to make its applications available through their applications stores or services such as Verizon’s Widget Bazaar in order not to “discriminate” against those not included? That could well make it impossible to provide such services in the first place – a result that would hurt not only consumers, but also small application providers for whom these services offer a platform to reach a large number of customers they otherwise would

⁶⁴ As discussed above, to the extent the Commission’s rule is motivated by concern about vertical leveraging (i.e., that a broadband provider offering its own content or applications might have an incentive to discriminate against competing application and content providers), that concern has no factual or theoretical foundation here and, in any case, the proposed rules are far broader than would be needed to address that issue.

not have and allow them to compete with established industry players. What about targeted services that provided easy access to selected content or applications for target audiences such as children or seniors who are less comfortable with computers and desire a simple-to-use interface – would their selectivity render them discriminatory and therefore deprive consumers of such choices?

Similarly, parties could argue that other services, such as caching arrangements – which enable certain content providers to store content and connect to the Verizon network at more favorable locations and thereby allow them to improve the customer experience and better compete against large players – should be prohibited under the Commission’s proposed rule because they would “discriminate” against those providers who do not purchase such services. If Netflix came to Verizon and asked to set up servers in major central offices around the country in order to speed up their video offerings, or to peer with Verizon in locations that would bypass congested routes, could Blockbuster successfully file a complaint that Verizon was discriminating in favor of Netflix? Again, the Commission presumably does not intend to ban these services, which would increase competition with established providers such as Google that already have extensive network facilities to prioritize delivery of their own content services, but its proposed rule provides no clear basis for why they would not fall within its sweep.

Network Management Practices. Further, to the extent that the proposed nondiscrimination rule had the effect of restricting or banning practices such as prioritization (or even de-prioritization), queuing, buffering, actions taken in response to security threats, or other measures that would ensure quality of service, it would harm competition and innovation and result in inefficient outcomes. Prioritization and other measures to ensure quality of service clearly can benefit consumers. Some applications require little bandwidth and are not time

sensitive (e.g., email), while others require significant bandwidth and are latency and jitter sensitive (e.g., VoIP, HD video and video conferencing, gaming, health monitoring and telemedicine, and education). Prioritizing the delivery of the latter over the former will improve the quality of one service without harming the other. Conversely, “de-prioritizing” certain traffic (e.g., delivering electric meter readings at night) would lead to greater efficiency for everyone.

The potential benefits of prioritization and similar techniques to customers is evident from the fact that firms that purchase private network services regularly choose to prioritize certain types of traffic on their networks. For example, Verizon’s private IP service enables customers to prioritize traffic based on its type (e.g., voice, video, or data) and application (e.g., a business critical use). The fact that customers often pay for the ability to differentiate traffic in this way demonstrates that users want and value prioritization, queuing, and other techniques and that a categorical ban on them would harm consumers. (Katz Decl. ¶ 14; Becker/Carlton Decl. ¶¶ 63-64.)

Further, the ability of network providers to provide prioritization and other quality of service enhancements could spur investment by content and application providers to develop offerings that could not be efficiently or usefully provided by a “best efforts” regime. (Becker/Carlton ¶ 72.) For example, real-time medical services might never be feasible unless network providers are able to guarantee a certain level of quality that will depend on treating that traffic more favorably than other traffic. The Commission provides no basis to second guess the decisions of customers, engineers, and network operators that these service enhancements can be valuable or an explanation of what problem it is trying to solve. There in fact is no existing problem – competitive pressures and consumer demand create strong incentives for providers to

engage in prioritization and similar techniques only when they will benefit – and therefore attract – customers and/or to offer customers choices about what types of service they prefer.

Third, the uncertainties and other harms resulting from the proposed nondiscrimination rule would only multiply as more and more specialized services integrate components from the Internet. For example, as video services or a provider’s “storefront” increasingly integrate selected content from the Internet (e.g., a service focused on children’s content that incorporates particular videos from the Internet aimed at children), a nondiscrimination rule that required that all content and application providers be offered access to such services on identical terms could well preclude the provider from integrating any Internet-delivered content at all – a result that would again reduce consumer choices and benefits. Given that these types of differentiated services are at a nascent stage and just starting to be introduced and that there is no way for the Commission (or anyone else) to predict how they will develop, what consumers may demand, and what benefits such services might bring, it would be particularly unwarranted to impose a broad nondiscrimination rule now that would choke off these innovations.

D. Any Limitations on “Managed” or “Specialized” Services Would Stifle Innovation and Limit Competition and Consumer Choice.

The *NPRM* raises questions about whether and how its proposed rules should apply to a broadband provider’s own “managed” or “specialized” services. *See NPRM* ¶152. The answer to that is simple. Regardless of what else it does here, the Commission should not impose any limitations on these services, and instead should make clear that any network provider that offers traditional Internet access also should be free to provide consumers with the option of choosing any additional services that the provider cares to offer, without regulatory limitations or restrictions. That result clearly is in consumers’ best interests. It will give them additional and new options that they can choose to take (or not) in addition to (or even instead of) traditional

Internet access, whether it be video services, telemedicine, tailored storefronts or other offerings focused on particular groups such as seniors or children (in much the way that some wireless phones are tailored to such groups), or other offerings not yet conceived. Consumer demand and market forces can then determine which services do or do not succeed. Conversely, applying any rules for the first time to so-called “managed” or “specialized” services would cause significant harms.

First, as discussed above, broadband access providers need broad flexibility to offer their own differentiated services – regardless of what term is used to describe them such as “managed” or “specialized” or something else – in order to support a business case for making ongoing investments to deploy broadband more broadly, and to increase capacity and add new capabilities where it has been deployed. While the revenues earned from charging consumers for public Internet access are a critical component of the business case, they simply cannot justify the required investments standing alone. The *NPRM*'s expressed concern that broadband access providers might allocate all their capacity to managed or specialized services at the expense of Internet access in order to avoid any rules adopted here (e.g., *NPRM* ¶¶ 71, 153) is belied by economic realities. A provider that chose to allocate insufficient capacity for public Internet access would quickly find itself losing customers to competitors. (Topper Decl. ¶¶ 139-45.) Multiple tiers of service exist in other industries, as well. For example, both UPS and FedEx have many different levels of speed and service. They have incentives to compete on all levels of service and, as such, have ensured high quality even at the cheapest levels. In point of fact, the Commission's concern has the reality backward: the ability to offer managed/specialized services helps create the business case for investing in high-capacity fiber that also then serves to provide higher capacity and faster speeds for Internet access. As a result, no matter what else it

may do here, the Commission should not impose any restrictions on the ability to offer services in addition to traditional Internet access service, regardless of what label is attached to those services.

Second, as noted above, the dividing line between Internet access and “managed services” is becoming increasingly blurred as more and more services integrate content or features from the Internet or connect directly or through a proxy with the Internet. Any attempt to define a fixed category of permissible services inevitably will create ambiguities and limit development of innovative new services that do not fit neatly within any definition adopted today. Such innovations, of course, benefit consumers by offering them even more choices. But the Commission’s proposed rules leave significant ambiguity about whether such services would be subject to restriction. For example, the Commission proposes to apply the rules to “broadband Internet access service,” which is defined as the provision of IP data transmission between an end user and any “endpoints reachable, directly or through a proxy, via a globally unique Internet address assigned by the Internet Assigned Numbers Authority.” *NPRM*, Appendix A, § 8.3. But some services that clearly should be deemed “managed” or “specialized,” including many private network offerings, would appear to fall within that definition. For example, many VoIP services used by enterprise customers draw on public IP addresses. And, as noted above, more and more services increasingly integrate selected content or features from the Internet (e.g., the FiOS Widgets service, which allows users to access certain endpoints such as Facebook that are reachable using the Internet). There is no basis to impose the proposed regulations on these services just because they draw in part of specific content or features from the Internet or just happen to involve the use of a public IP address.

That is particularly true with respect to private IP services provided to enterprise customers that allow them to deliver data over Verizon’s IP network with the flexibility to control the priority and security afforded that traffic. (Products Decl. ¶ 8.) Because such services are distinct from Internet access services (even if some customers may also incidentally use their private network to access content on the public Internet), they, and other services sold to business customers, have not been considered subject to the Commission’s wireline broadband principles or been the focus of debates concerning “net neutrality,” and these offerings presumably would not be affected by the Commission’s proposed rules. Indeed, it would make little sense to impose requirements about access to all content and applications on the public Internet or “nondiscrimination” when customers of such services are not intending to purchase undifferentiated access to the public Internet.

Third, rather than trying to define or predetermine a fixed category of “permissible” services in some static or artificial way, the Commission should make clear that any provider that offers traditional Internet access that allows consumers to access any lawful content and applications also is free to offer consumers the option of purchasing any and all additional services that the provider chooses to provide: that will give consumers additional choices and allow market forces to determine what services best meet consumer demand. And it is certainly a preferable alternative to having the Commission be in the business of trying to identify or define permissible “managed services.” Although certain services such as private IP services – which, as described above, involve a high degree of management, often at the customer’s direction – clearly should fall within any “managed services” exception, creating a comprehensive and current definition would be a futile exercise given the broad variety of services offered today and the continuing evolution and expansion of such services. The

uncertainty and confusion that would result from any attempt to codify such rules inevitably would deter innovation, undermine the business case for investment in broadband facilities, harm competition, and thereby harm consumers. To the extent the Commission adopts any rules at all, they should be limited by their terms only to traditional wireline public Internet access services – i.e., services that are expressly sold as offering the public access to all lawful endpoints on the public Internet – as well as providers of lawful content, applications, and services on the public Internet (for the reasons described above).

E. The Proposed Rules Would Place Into Doubt Whether Providers Could Engage in Network Management Needed To Better Serve and Protect Consumers.

Broadband providers unquestionably need to engage in network management to provide the quality service that customers demand. Any rule that limits providers to “reasonable” network management practices, while seemingly benign, will have unintended and harmful consequences. Because it will subject engineers to the risk of sanctions for guessing wrong as to what regulators might later deem reasonable, such a rule will engender uncertainty and undermine the ability of providers to engage in practices needed to serve and protect consumers.

First, there is now widely established consensus among virtually all concerned that network management is critical to maintaining a functioning Internet and to respond to a variety of issues that are growing more complex over time. Examples include the need to manage capacity constraints caused by the rise in traffic volumes due to growth in uses such as streaming video, gaming, and P2P file exchanges; protect users and the network from unlawful or harmful content; and optimize service, including for latency-sensitive applications such as telemedicine. (Network Mgmt. Decl. ¶¶ 8-23.) As described above, the need for network management is particularly acute in the context of wireless broadband services due to the complications introduced by mobility and a variety of other technical constraints.

Moreover, network management is critical to important national priorities such as cybersecurity, fighting illegal content, and protecting children online. Although the Commission appears to recognize the importance of such goals, and proposes to include exceptions that would purport to permit network management practices for these purposes, the practical effect of the proposed rules would be to undermine the ability to serve these goals. Take, for example, security. Networks face numerous threats that Verizon and others must defend against. These include 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). (Network Mgmt. Decl. ¶ 13.) Providers need to be able to act dynamically and quickly in the face of these evolving threats.⁶⁵ The proposed regulations, however, would slow response time, reduce flexibility, and introduce uncertainty. For example, because security staff is often responding based on incomplete information to emerging harms, lawful content may inadvertently be caught by widely accepted and effective security measures, especially in the initial phase of responding to a threat, yet it is unclear whether that would violate the Commission’s rules (e.g., the prohibition on blocking lawful content). If it did – or if there was uncertainty or risk that it might – providers might not act at a stage where the threat was easier to combat or manage, or they might target their responses too narrowly, to the benefit of terrorists and hackers. And the rules would in any event slow down responses because engineers likely would have to consult with the requisite squadron of lawyers who themselves would be hamstrung by inherently uncertain standards in trying to evaluate and predict whether the Commission would in hindsight deem a particular technical response to be “reasonable” under all of the circumstances of a particular

⁶⁵ Only recently, for example, as many as 34 different Internet companies were apparently the victim of a new sophisticated set of cyber attacks originating in China. See Jessica E. Vascellaro, Jason Dean & Siobhan Gorman, *Google Warns of China Exit Over Hacking*, Wall St. Journal (Jan. 13, 2010).

case. Moreover, the regulatory uncertainty and the possibility that new techniques could not be deployed would undermine incentives to invest and innovate to better address these concerns.

Second, there also appears to be a widespread recognition that the need for effective network management cannot be eliminated simply by adding capacity – for example, security threats always need to be dealt with no matter what the capacity of the network. Moreover, the demands placed on broadband networks have historically grown to match and then exceed added network capacity. And, in any case, effective network management can be more cost-efficient than adding costly capacity. It makes no economic sense to impose rules that require the addition of more capacity than would be needed if existing capacity could be used more efficiently. (Katz Decl. ¶ 48.) Indeed, rules that restricted a network provider’s ability to use capacity efficiently would prevent the provider from producing as much output as possible from a given amount of network equipment. As a result, the cost of capacity per unit of output would be higher, the operator’s net return on investment would be lower, and it would have *less* incentive to invest in additional capacity. (*Id.*)

Moreover, adopting a restriction on network management practices by broadband access providers would overlook the fact that other members of the Internet ecosystem also engage in active network management. Google is one of the Internet’s largest network operators, as are Akamai and other owners of content delivery networks. They all must contend with issues such as security threats and changes in traffic patterns. Likewise, content and application providers have to manage traffic volumes across their server networks. (Network Mgmt. Decl. ¶¶ 33-35.) Because those practices too can affect users’ access to content, there is no principled basis for treating them differently than broadband access providers.

Third, network management is an extraordinarily complex undertaking that requires maximum flexibility, and, as noted above, imposing any rules in this area, even ones that seem reasonable, necessarily will limit this flexibility and have harmful unintended consequences. Even network providers have different views as to the optimal approach, and the best approach may differ for different networks. Consumer welfare is best promoted by allowing network operators to have wide berth to experiment and use different techniques, recognizing that competitive market forces will cause them to use those approaches that best create consumer value. (Katz Decl. ¶¶ 56-57.) Although the Commission is certainly right to reject the standard it adopted in *Comcast* as overly strict, *NPRM* ¶ 137, even the proposed reasonableness standard would leave tremendous uncertainty at best – fraught with risks from inaccurately predicting the Commission’s view on the “reasonableness” of a particular method. Because the threats to networks, capacity challenges, and service issues are constantly changing, the development of legal guidance for engineers would be impractical and continuously out of date. At the same time, the Commission clearly could not practically or effectively impose specific, detailed rules (indeed, doing so would be even more damaging). Thus, the inevitable result would be an over-lawyered process that reduces flexibility and experimentation and is ineffective at handling new security threats and rapidly changing conditions that network engineers must deal with in the real world– a result that would harm consumer welfare.

F. A Decision To Open the Door To Internet Regulation Could Have Significant Harmful International Ramifications.

Up to now, the United States has taken a hands-off approach to the Internet, leading to an explosion of growth and innovation. That approach also has set an example for the rest of the world that, while obviously not always followed, has nevertheless served as a benchmark and provided a basis for the U.S. to urge other nations to take a similar approach. Indeed, the FCC

itself, under the leadership of former Chairman Kennard, pointed to its own example of the absence of regulation of the Internet as a model for foreign regulators to follow:

The Internet has evolved at an unprecedented pace, in large part due to the absence of government regulation. Consistent with the tradition of promoting innovation in new communications services, regulatory agencies should refrain from taking actions that could stifle the growth of the Internet. During this time of rapid telecommunications liberalization and technology innovation, unnecessary regulation can inhibit the global development and expansion of Internet infrastructure and services. To ensure that the Internet is available to as many persons as possible, the FCC has adopted a “hands-off” Internet policy. We are in the early stages of global Internet development, and policymakers should avoid actions that may limit the tremendous potential of Internet delivery.⁶⁶

However, the current and immediate past Coordinators for International Communications and Information Policy at the Department of State have expressed concern that adopting “net neutrality” rules would set a harmful example for other countries: “the Network Neutrality proceeding has attracted extensive attention around the world. I think it is fair to say that the level of international interest is very nearly universal. In some countries it is being interpreted as an initiative by the United States to regulate the Internet. And we are concerned that in some countries it may be used as a justification for blocking access for purposes of preventing

⁶⁶ FCC, *Connecting the Globe: A Regulator’s Guide to Building a Global Information Community*, at Section IX (1999), *available at* <http://www.fcc.gov/connectglobe/sec9.html>.

unwelcome political, social, or cultural information from being disseminated to their citizens.”⁶⁷

Commissioner McDowell confirmed this possibility: “some foreign regulators are waiting for the U.S. to assert more government authority over the Internet to justify an increased state role over the Internet’s affairs in their countries,” some of which “may have a definition of the ‘public interest’ that is far different from ours.”⁶⁸

Such a result should be of concern not only because of its implications for citizens of those countries that adopt such regulation – such as the diminution of the Internet as a tool to fight government repression – but also because the Internet is a global network and U.S. citizens and companies are not insulated from the effects of Internet regulations abroad.

VI. The Proposed Rules Would Be Unlawful.

A. The Commission Lacks the Authority To Adopt the Sweeping Rules Proposed Here.

From a legal standpoint, the threshold question is whether and to what extent the Commission has authority to impose the proposed regulations in the first instance. In its *NPRM*, the Commission asserts that it has the authority to create and enforce far-reaching net neutrality regulations pursuant to its so-called “ancillary authority.” But the Commission’s assertion of

⁶⁷ International Innovation and Broadband, Remarks of Ambassador Philip L. Verveer, U.S. Coordinator for International Communications and Information Policy, at House of Sweden, Washington, D.C. (Dec. 3, 2009) *available at* <http://www.state.gov/e/eeb/rls/rm/2009/133802.htm>; *see* Ambassador David Gross, Post to Interesting-People (Oct. 15, 2009), *available at* <http://www.interesting-people.org/archives/interesting-people/200910/msg00121.html>. (“[T]here may be virtually no basis for the United States to object to other governments also creating new rules governing the Internet. . . . It is easy to understand that these other governments will seek to design rules to help their domestic companies at the expense of international and American companies as well as at the cost of the economically efficient design of the Internet. Ironically they are also likely to use the establishment of new US rules regulating the Internet to impose their own restrictions on Internet content – especially focusing on restricting the free flow of information so as to promote their own interests in enhancing Chinese ‘social cohesion’ or other countries that seek to ‘defend against religious defamation.’”).

⁶⁸ Commissioner Robert McDowell, “Questions to Ask Regarding Internet Regulation,” Institute for Policy Innovation Communications Summit (November 12, 2009).

broad ancillary authority to impose the proposed regulations is a bridge too far. The Commission is a creature of statute and thus can only exercise authority delegated to it by statute. To be sure, as the Supreme Court has recognized, the Commission has authority to take certain actions that, while not explicitly authorized in the Communications Act, are needed to carry out those functions that expressly *have* been delegated to it, and courts have upheld various exercises of the Commission’s ancillary authority. But, as the courts also have made clear, that authority is necessarily cabined. The Commission cannot simply take any action it views to be in the public interest so long as it involves the regulation of communications. Instead, the Commission’s exercise of authority must be “ancillary” to some other provision of the Communications Act that does confer express substantive responsibility on the Commission. Thus, to justify an exercise of ancillary authority, the Commission must (1) identify a “primary” substantive statutory provision to which the proposed action is ancillary, (2) demonstrate that the action is needed for the effective performance of that primary provision, and (3) ensure that the action is not otherwise inconsistent with the Act. *See, e.g., United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968); *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) (“*Midwest Video II*”).

The Commission cannot satisfy this standard. Its proposed rules would impose the equivalent (indeed, a stricter version) of common carriage regulation on broadband Internet access services, a result that is contrary to the legislative scheme. While this is most clearly true of the proposed nondiscrimination obligation, it also is true of other proposed requirements, which essentially duplicate requirements imposed historically to give effect to core common carriage duties. The Supreme Court overturned a similar attempt to use ancillary authority to extend common carriage regulation to cable television in *Midwest Video II*. In addition, although

the Commission and other proponents of net regulation have pointed to a series of provisions in the Communications Act that they claim can be the basis for ancillary authority to impose net regulation, an examination of each of these provisions demonstrates that they cannot play that role. In some cases, the cited provisions do not even assign any function to the Commission at all, and thus net regulation could not be ancillary to the performance of any Commission responsibility. In others, while the Commission has a statutorily mandated responsibility, net regulation would not advance – let alone be necessary for – that responsibility.

At bottom, the theories of ancillary authority that have been advanced to justify imposing net regulation would give the Commission virtual *carte blanche* authority to regulate the functioning of the Internet. The courts, including in the recent oral argument in *Comcast v. FCC*, have repeatedly warned against just such a broad interpretation of ancillary authority.⁶⁹ Moreover, as explained in the sections that follow, net regulation raises significant First and Fifth Amendment issues that also strongly counsel against a broad interpretation of the Commission’s statutory authority under the doctrine of constitutional avoidance.

1. The Commission May Exercise Ancillary Authority Only in Limited Circumstances.

Like any agency, the Commission “may issue regulations only pursuant to authority delegated to [it] by Congress.” *American Library Ass’n v. FCC*, 406 F.3d 689, 691, 698 (D.C. Cir. 2005) (“The FCC, like other federal agencies, literally has no power to act . . . unless and until Congress confers power upon it.”). Generally, Congress does so by passing provisions that direct the Commission to carry out certain functions. At the same time, the courts have recognized that the Communications Act also authorizes the Commission in certain

⁶⁹ See, e.g., Oral Argument Transcript, *Comcast Corp. v. FCC*, No. 08-1291, at 50 (Jan. 8, 2010) (Judge Randolph: “ancillary authority has to be pegged to a particular operative statute”).

circumstances to exercise “ancillary authority” to take actions that extend beyond the specific duties Congress has set forth. But this ancillary authority has important limits that the agency must observe.

As a threshold matter, the Commission must have jurisdiction over the subject matter at issue. Sections 1 and 2(a) of the Communications Act give the Commission jurisdiction over “interstate and foreign communication by wire or radio.” That jurisdiction is not automatic and does not extend to every subject that affects or pertains to communications. *See, e.g., American Library Ass’n*, 406 F.3d at 703.

In any case, as the D.C. Circuit has explained, subject matter jurisdiction is only the first step of the inquiry. *See id.* at 700; *see also Bell v. Hood*, 327 U.S. 678 (1946) (holding that question whether court had jurisdiction was distinct from whether a law gave rise to a cause of action). The Commission’s ancillary authority is not a roving mandate to take any action the agency deems desirable with respect to matters that fall within its jurisdiction because they involve the regulation of “interstate and foreign . . . communication by wire or radio” and could be said to advance the very general goal of making available “a rapid, efficient, Nation-wide, and world-wide wire . . . communication service . . . with adequate facilities at reasonable charges.” 47 U.S.C. § 151. Indeed, interpreting the Commission’s authority under sections 1 and 2(a) so expansively would render much of the rest of the Communications Act – which gives the Commission authority to carry out specific functions – unnecessary surplusage in violation of basic canons of statutory construction. Moreover, such an interpretation also could raise significant constitutional questions: under the separation of powers that lies at the heart of our governmental system, Congress may not delegate its lawmaking power over a subject to an agency without providing appropriate standards and principles such that the agency is merely

executing Congress's will. *See generally Whitman v. American Trucking Ass'ns, Inc.*, 531 U.S. 457, 472 (2001); *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928).

Instead, even if the Commission has jurisdiction, actions taken under the Commission's ancillary authority must, as the name suggests, be "ancillary" to something else. As both the Supreme Court and the D.C. Circuit explained in their seminal decisions concerning ancillary authority, the Commission's action must be "reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." *American Library Ass'n*, 406 F.3d at 700-01; *Southwestern Cable*, 392 U.S. at 178. That is evident from the statutory provisions giving rise to this authority. In particular, as the language in section 4(i) of the Act provides, the Commission may "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with [the Communications Act], as may be necessary in the execution of its functions." Other provisions of the Act to which proponents of net neutrality point as giving rise to the Commission's ancillary authority similarly grant authority to the extent "necessary" to "carry out the provisions of the" Communications Act." 47 U.S.C. §§ 201(b), 303(r). These provisions are not an independent or stand-alone source of regulatory authority. Rather, they are "more akin to a 'necessary and proper' clause" that provide the Commission with rulemaking authority as needed to carry out other provisions of the Act. *See Motion Picture Ass'n of America v. FCC*, 309 F.3d 796, 806 (D.C. Cir. 2002).

Thus, as courts have repeatedly explained, to justify an exercise of ancillary authority, the Commission must (1) identify a "primary" substantive statutory provision to which the proposed action is ancillary, (2) show that the action is needed for the effective performance of that

primary provision, and (3) ensure that the action is not otherwise inconsistent with the Act.⁷⁰ See, e.g., *Southwestern Cable, Co.*, 392 U.S. at 178; *Midwest Video II*, 440 U.S. at 700-02; *American Library Ass'n*, 406 F.3d at 700. In order to show that a proposed regulation under ancillary authority is necessary to give effect to a substantive statutory provision, the Commission must point to evidence demonstrating that the provision cannot be given effect through other means, such as direct regulation under that provision or as a result of competition or other market forces. For example, in order to justify a rule against blocking the transmission of video over the Internet as an exercise of ancillary authority to give effect to the provision in the Cable Act authorizing the Commission to regulate cable rates in certain circumstances, 47 U.S.C. § 543, the Commission would have to show that it could not accomplish its assigned function without exercising ancillary authority. In particular, it would need to demonstrate that neither direct regulation of cable rates nor competition could accomplish the same goal.

These prerequisites for the exercise of ancillary authority reasonably ground that authority in the Act, while at the same time giving the Commission the flexibility needed to carry out its expressly assigned statutory responsibilities. Thus, for example, the Commission reasonably determined that it had ancillary authority to extend the privacy protections accorded to customer proprietary network information (“CPNI”) associated with the use of telecommunications services to Voice over Internet Protocol (“VoIP”) services that are

⁷⁰ Since its recognition of ancillary jurisdiction in *Southwestern Cable Co.* and in a plurality opinion in *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) (*Midwest Video I*), the Supreme Court has become more strict in its willingness to recognize implied grants of authority. See, e.g., *Touche Ross & Co. v. Redington*, 442 U.S. 560, 578 (1979) (“[I]n a series of cases since [1964] we have adhered to a stricter standard for the implication of private causes of action”); *Roosevelt v. E.I. Du Pont de Nemours & Co.*, 958 F.2d 416, 420 (D.C. Cir. 1992) (Supreme Court “has exercised greater restraint in the implication of private rights of action”). That trend confirms that, as reflected in the decision in *Midwest Video II*, the plurality decision in *Midwest Video I* represented a high watermark in the scope of ancillary authority.

interconnected with the public switched telephone network (i.e., VoIP services that permit users to place calls to, and receive calls from, traditional telephones). The Commission found that (1) such an action was ancillary to section 222 of the Act; (2) that it was needed to ensure effective protections for CPNI because otherwise information about customers of telecommunications services would be unprotected to the extent they participated in calls with users of interconnected VoIP services; and (3) that the action was not otherwise inconsistent with the Act.⁷¹

In the context of broadband Internet access services, as the Supreme Court recognized in *Brand X*, “the Commission has *jurisdiction* to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications, *see* §§ 151-161.” *NCTA v. Brand X Internet Servs.*, 545 U.S. 967, 976 (2005) (emphasis added). But before the Commission could impose any such obligations, it would have to demonstrate that the particular regulations it seeks to promulgate pursuant to its ancillary authority are needed for the effective performance of the Commission’s expressly assigned duties under some other substantive statutory provision and are not otherwise inconsistent with the Act. Importantly, the Commission would have to make that showing for *each* proposed regulation. *See, e.g., NARUC v. FCC*, 533 F.2d 601, 612 (D.C. Cir. 1976) (“*NARUC II*”) (“[E]ach and every assertion of jurisdiction . . . must be independently justified as reasonably ancillary to” a specific statutory responsibility).

⁷¹ Report and Order, *Telecommunications Carriers’ Use of Customer Proprietary Network Information and Other Customer Information*, 22 FCC Rcd 6927 (2007).

2. The Commission Does Not Have Ancillary Authority To Impose the Proposed Broad Net Neutrality Rules.

a) The Commission Does Not Have Authority To Impose Common Carriage-Like Obligations, Including Its Proposed Nondiscrimination Rule, on Information Services Such as Broadband Internet Access.

The Commission’s ancillary authority does not encompass actions that are otherwise inconsistent with the Communications Act. Yet the Commission’s proposed rules would be just that. As noted above, the proposed rules seek to import legacy common carrier duties on the Internet. That is most clearly true of the nondiscrimination requirement: the duty to accommodate all comers on an undifferentiated basis on the same terms and conditions is the very hallmark of common carrier regulation. *See, e.g.*, 47 U.S.C. §§ 201-202; *NARUC II*, 533 F.2d at 608 (“[T]he primary sine qua non of common carrier status is a quasi-public character, which arises out of the undertaking ‘to carry for all people indifferently. . . .’”). But the Act makes clear that information services may not be subject to such common carriage regulation, and the Commission has repeatedly found, and the Supreme Court has affirmed, that broadband Internet access is an information service.

As the Commission has recognized, in the Telecommunications Act, Congress was careful to define two “*mutually exclusive*” categories of service – “information services” and “telecommunications services.”⁷² Further, the definition of “telecommunications carrier” in the Act provides that a “telecommunications carrier shall be treated as a common carrier under this Act *only to the extent that it is engaged in providing telecommunications services.*” 47 U.S.C. § 153(44) (emphasis added). Thus, the D.C. Circuit has noted, “[w]hether an entity in a given case

⁷² *See, e.g.* Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11520, 11522-23 ¶¶ 39, 43 (1998) (“The language and legislative history of both the House and Senate bills indicate that the drafters of each bill regarded telecommunications services and information services as mutually exclusive categories.”).

is to be considered a common carrier” turns not on its typical status but “on the particular practice under surveillance.”⁷³ Accordingly, under the terms of the Act, a provider cannot be subject to common carriage regulation under Title II with respect to the provision of information services. *See Brand X*, 545 U.S. at 975 (“The Act regulates telecommunications carriers, but not information-service providers, as common carriers.”).

The Commission recently has argued that because this limitation appears in the definition of “telecommunications carriers,” it does not apply to information service providers at all.⁷⁴ But that is nonsensical. Anytime a telecommunications carrier provides an information service, it too is an information service provider. Thus, under the Commission’s reading, the limitation on common carriage regulation would no longer apply, and the information service could be subject to common carriage regulation – exactly the opposite of what the plain language of the Act says. Indeed, the Commission’s interpretation would have the perverse result of subjecting information service providers – including not only broadband Internet access providers, but potentially other web-based information service providers – to the most intrusive form of regulation – common carriage – even though a primary aim of carving out a category of first “enhanced services” and then information services has been to exempt these services from just such regulation.

The Supreme Court previously overturned a similar attempt to impose the equivalent of common carrier regulation under the rubric of ancillary authority. In that case, *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979), the Commission sought to require cable companies to make certain channels available for third-party access on the theory that such regulation was ancillary to the agency’s regulation of broadcast. The Supreme Court rejected the Commission’s assertion

⁷³ *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994); *Virgin Islands Tel. Corp. v. FCC*, 198 F.3d 921 (D.C. Cir. 1999).

⁷⁴ *See* Brief of Respondent FCC, *Comcast Corp. v. FCC*, No. 08-1291, at 42 (D.C. Cir. filed Sept. 21, 2009) (“FCC Comcast Br.”).

of ancillary authority on the ground that the regulations were tantamount to common carriage obligations, and the Act prohibited the treatment of broadcasters as common carriers: even though the Act contained no comparable prohibition as to cable, the Court explained that it could not be ancillary to the regulation of broadcast to impose a rule that was antithetical to a basic parameter of broadcast regulation. *See id.* at 700-02.

Here, the conflict with the Act is even more direct: the Act makes clear that information services themselves are not subject to common carrier regulation (because only telecommunications services are), yet the Commission proposes to use ancillary authority to impose the functional equivalent of such regulations. Moreover, the Commission's proposed rule would go even *further* than traditional common carrier regulation by imposing an *absolute* ban on discrimination, rather than just prohibiting "unjust and unreasonable" discrimination as under traditional common carriage regulation. *Compare NPRM* ¶ 109 *with* 47 U.S.C. §§ 201-202. The Commission cannot invoke ancillary authority to impose a stricter standard on information services – which the Act exempts from common carriage regulation – than on telecommunications services.

Nor could the Commission reverse course and find that broadband Internet access is a telecommunications service. The Commission has already concluded multiple times as a matter of statutory interpretation that broadband Internet access is an information service under the terms of the Act.⁷⁵ That conclusion has been affirmed by the Supreme Court. *See Brand X*, 545 U.S. at 992. The Commission would have no basis to reverse course. Obviously, the statute – and in particular the definitions of "telecommunications service," "telecommunications," and

⁷⁵ *See, e.g., Cable Modem Order*, 17 FCC Rcd at 4828-31 ¶¶ 44, 52-55; *Wireline Broadband Order*, 20 FCC Rcd at 14862-65 ¶¶ 12-17; *Wireless Broadband Order*, 22 FCC Rcd at 5916, 5919-20 ¶¶ 40-41, 50-53.

“information service” – has not changed. And the attributes of Internet access services that make them information services have not changed. Internet access service “combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications” and thus unquestionably involves “generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.” *Cable Modem Order* ¶ 38 (quoting 47 U.S.C. § 153(20)). Broadband Internet access services fit squarely within this definition, and the Commission could not lawfully now find otherwise.

Some parties undoubtedly will argue – as they did at the time of the Commission’s original decisions – that broadband Internet access service should be “unbundled” into its component parts, and the transmission component treated as a separate “telecommunications service” subject to common carriage regulation. The Commission previously rejected that argument, and again, it has no grounds for reaching the polar opposite conclusion here. As an initial matter, the Commission’s prior conclusion that, under the terms of the statute, transmission is part and parcel of a single integrated Internet access service offered to consumers – and not a separate “telecommunications service” – remains true. *Cable Modem Order* ¶¶ 39-40, 58 (“Though by definition an information service includes a telecommunications component, the mere existence of such a component, without more, does not indicate that there is a separate offering of a telecommunications service to the subscriber.”). Nor could the Commission compel a broadband Internet access provider to offer a separate transmission service subject to common carriage regulation. Absent a voluntary undertaking, the Commission cannot impose an obligation to provide a service on a common carrier basis through “legal compulsion” absent a demonstration that the presence of substantial market power necessitates common carrier

obligations. *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).

Here, there is no evidence of market power in the provision of broadband transmission services or the lack of availability of such services to service providers that would justify such a reversal of position by the Commission or otherwise support a requirement that wireline Internet access service providers offer the transmission component as a separate common carrier service. The Commission has repeatedly found that the marketplace for broadband services is competitive and accordingly declined to impose common carriage obligations.⁷⁶ It may not reach the opposite conclusion now without a “reasoned analysis” explaining why. *See, e.g., Motor Vehicles Mfrs. Assn. v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 57 (1983). Yet, as explained above, the market has actually become *more* competitive since the Commission’s found that broadband access providers lacked market power (e.g., through the emergence of 4G wireless services), and thus there is no reasoned basis for the Commission to conclude that the telecommunications component of broadband access should be separately subject to common carriage regulation as a telecommunications service.

Even aside from the fact that the Commission could not require a broadband Internet access provider to unbundle the transmission component and subject it to common carriage regulation, doing so would not in any event provide any basis to impose the rules proposed here.

⁷⁶ *See infra* Section VI.C.1; *see also Wireline Broadband Order*, 20 FCC Rcd at 14879-85 ¶¶ 47-58 (2005).

Those rules would apply to the Internet access service as a whole – they impose obligations with respect to what information and applications a user must be able to access, the means for “storing,” “retrieving,” and “making available” such information, and numerous other aspects of Internet access service well beyond the transmission component. Because broadband Internet access services are indisputably information services, the proposed rules would impose common carriage regulation on information services in direct contravention of the Act – a course the Commission has no authority to take.

b) No Provision of the Act Provides a Basis for Ancillary Authority To Impose Net Regulation.

The Commission and net regulation proponents have pointed to several sections of the Communications Act that they contend can serve as the primary substantive statutory provision to which net regulations would be ancillary. But a closer look at each of those sections demonstrates the fallacy of those arguments. As the Supreme Court explained in rejecting the FDA’s claim of authority to regulate tobacco products, “the FDA has now asserted jurisdiction to regulate an industry constituting a significant portion of the American economy [W]e are confident that Congress could not have intended to delegate a decision of such economic and political significance to an agency in so cryptic a fashion.” *FDA v. Brown & Williamson*, 529 U.S. 120, 147 (2000). Those words apply equally to the FCC’s strained attempts here to find authority to regulate the Internet.

Section 201. On its face, section 201 applies only to common carriers. And, as described above, imposing common carriage regulation on broadband Internet access would be contrary to the Act’s delineation of mutually exclusive categories for information services and telecommunications services and its limitation of common carriage regulation to the latter. Moreover, Section 201(b) requires that charges and practices with respect to *common carrier*

services be just and reasonable – the Commission does not need to impose net regulations on broadband Internet access service (i.e., an information service) to effectively carry out that function as to *common carrier services*, which would be the only basis for invoking authority ancillary to Section 201.

The Commission points in its *NPRM* to the language in section 201(b) providing the Commission with authority “to prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter.” But the Commission’s appeal to that provision begs the question what “provisions” net regulation is intended to carry out. In other words, much like section 4(i) of the Act, this language is not an independent substantive grant of authority. Rather invoking it still requires the Commission to identify some *other* provision of the Act that gives it such authority.

Section 230. The Commission and net regulation proponents also have pointed to various general policy statements in the preamble to section 230 as a basis for ancillary authority to impose net regulations. This argument fails on a number of levels. First, section 230 confers no substantive authority on the Commission to do *anything*. The only substantive provisions of this section provide for immunity for civil liability for providers of interactive computer services in certain circumstances and are administered by the courts, not the Commission. No regulation could be “reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities” under section 230 because the Commission has no responsibilities under that section.

Second, section 230 expressly provides for immunity where service providers *restrict* access to content they deem in good faith to be objectionable (even if not unlawful) – a result in tension with the objective net regulation proponents hope to achieve. Thus, adoption of net

regulations that would require providers to provide access to and transmit *all* lawful content would not be ancillary to section 230 – it would at least in part be contrary to it.

Third, section 230 is a deregulatory provision that cannot be read to provide a basis for sweeping new regulation. In the same purposes section on which the Commission relies, Congress found 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). While Congress also expressed a policy to “encourage the development of technologies which maximize user control over what information is received” when using the Internet, *id.* § 230(b)(3), the substantive provisions of the statute make clear that Congress was referring to the provision of parental control and other screening technologies that would enable users to “control” the information they receive by *blocking* indecent and other offensive content. *See id.* §§ 230(c)(2), (d). Nothing in the statute evinces any intent to give the Commission greater regulatory control over the Internet. The suggestion that Congress delegated authority to the Commission to broadly regulate the Internet and cabined that authority only through a few snippets of general statements of policy without assigning the Commission any function whatsoever makes no sense. As the Supreme Court has stated, “Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions – it does not, one might say, hide elephants in mouseholes.” *Whitman v. American Trucking Ass’ns*, 531 U.S. 457, 468 (2001).

Section 706. Section 706 similarly does not support exercise of the Commission’s ancillary authority to promulgate net regulation. As an initial matter, the Commission itself has held that section 706 does not confer any substantive authority or function on the Commission but is no more than a statement of general policy that is best understood as guidance for how to

interpret other provisions of the Act.⁷⁷ As the D.C. Circuit has explained, an exercise of ancillary authority is not valid merely because it advances a “valid communications policy and in the public interest,” but rather must ensure the effective performance of a specific, expressly assigned function. *See Motion Picture Ass’n of America*, 309 F.3d at 806. A contrary rule would broaden the agency’s authority well beyond what Congress has expressly assigned.

In any case, imposing net regulation would be *inconsistent* with 706. This section generally concerns the deployment and availability of broadband facilities to users, and the Commission has repeatedly determined that a “light touch” regulatory policy is most likely to lead to greater investment and deployment. Conversely, onerous or intrusive net regulations would discourage investment in and deployment of such facilities and thus cannot be reasonably ancillary to section 706.

Section 251. Section 251 requires, among other things, that telecommunications carriers “interconnect directly or indirectly with the facilities and equipment or other telecommunications carriers” and “not . . . install network features, functions, or capabilities that do not comply with” standards established under section 256 (discussed below). Some net regulation proponents have argued that net regulations could be deemed ancillary to this interconnection obligation.

But this is incorrect for at least two reasons. First, as noted above, Congress created the category of “information services” at the same time as it imposed the interconnection obligation in section 251 in the 1996 Act, yet it deliberately chose to impose an interconnection obligation under section 251 only with respect to “telecommunications carriers,” which the Act defines as a provider of “telecommunications services.” As discussed above, Congress created a mutually

⁷⁷ See, e.g., Memorandum Opinion and Order, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd 24012, 24044, 24046-48 ¶¶ 69, 74-77 (1998).

exclusive “information service”/“telecommunications service” dichotomy. In so doing, Congress was largely codifying the enhanced service/basic service classification the Commission had adopted in a series of proceedings called the *Computer Inquiries*. A fundamental tenet of those proceedings was that enhanced services (i.e., information services) should generally be left unregulated, while basic services could be regulated. *See Brand X*, 545 U.S. at 976-77. In the 1996 Act, Congress followed the Commission’s lead and imposed interconnection obligations on telecommunications carriers, but not on those providing information services. To now rely on the provision imposing those obligations as a basis to regulate information services such as broadband Internet access would thus be contrary to – rather than ancillary to – the policy choice that Congress made.

Second, there is no market reason or any other basis to suggest that net regulations are needed to ensure the effective performance of the Commission’s duty to require interconnection among *networks that provide telecommunications services*. Ancillary authority is only appropriate when it is needed to carry out the duty specified in the statute, and the Commission cannot accomplish that duty through exercise of its direct authority. Here, that duty is not the interconnection of all communications networks generally, but those that provide telecommunications services. And those networks already are interconnected. Although proponents have suggested net regulation is needed to ensure that VoIP traffic can be transported to and from the public switched telephone network, even in that context there is no failure of interconnection such that the Commission needs to step in to ensure the effective performance of its duties as to telecommunications services.⁷⁸ Indeed, the Commission’s Wireline Competition Bureau already made clear that VoIP providers can interconnect through wholesale providers

⁷⁸ In any case, that narrow rationale could not possibly justify assertion of jurisdiction to impose the wide-ranging rules that the Commission has proposed.

that provide telecommunications services when it declared unlawful attempts by certain rural providers to refuse interconnection with carriers that provided wholesale transport services to enable Time Warner's VoIP customers to connect with the public switched telephone network. Further, of course, VoIP providers are free to negotiate commercial terms under which they can interconnect directly with telecommunications carriers. And there is a long history of voluntary IP interconnection agreements such as peering and transit arrangements. Given these facts, the Commission can make no showing that its proposed regulations are somehow needed to give effect to its directly assigned duties.

Section 256. Contrary to claims by some, net regulations also are not needed to ensure the effective performance of the specific functions the Commission is assigned under section 256. While Section 256(a)(2) sets forth a general purpose of ensuring that users and information providers can seamlessly receive and transmit information over telecommunication networks, Congress then assigned the Commission only two specific functions to carry out this general purpose, neither of which can support the exercise of ancillary authority to impose net regulations.

Section 256(b)(1) concerns oversight of network planning "by telecommunications carriers and other providers of telecommunications service for the effective and efficient interconnection of public telecommunications networks used to provide telecommunications services." Again, however, this provision is limited by its terms to "telecommunications services" and, as discussed above, there is no basis to suggest that regulation of an information service – that is, broadband Internet access – is needed to ensure interconnection of telecommunications networks. And, in any event, there is no evidence that public telecommunications networks do not already effectively and efficiently interconnect, or that net

regulations concerned with the ability of end users to access content and applications over the Internet would improve such interconnection. Similarly, the other substantive provision, section 256(b)(2), authorizes the Commission to participate in the development of standards by industry standard-setting organizations concerning “public telecommunications network interconnectivity,” which the statute defines as the ability of “public telecommunications networks used to provide telecommunications service to communicate and exchange information without degeneration, and to interact in concert with one another.” 47 U.S.C. § 256(d). In addition to the limitation to telecommunications services, the statute does not even authorize the Commission to set such standards – just to participate in industry standard-setting. It surely can do so without imposing its own net regulations.

The only mention of information services in the substantive provisions of section 256 concerns development of standards under section 256(b)(2) to promote access to such services by subscribers of rural telephone companies. But that mention must be read in the context of section 256(b)(2) as a whole, which, as noted above, is directed at the interconnectivity of networks used to provide telecommunications services. In other words, because Internet service providers often use telecommunications services (e.g., ISDN lines) to deliver Internet services, increased interconnection among telecommunications networks will facilitate subscriber access to Internet and other information services. And, in any event, the fact that the provision speaks specifically only to subscribers of rural telephone companies belies any notion that Congress intended to empower the Commission even to participate in industry standard-setting of “neutrality” standards for broadband access services more generally.

Titles II, III, and VI of the Communications Act. In its appellate brief defending the *Comcast* Order, the Commission has suggested that net regulation falls within its ancillary

authority because the Internet affects other regulated communications – in particular, broadcast and cable television and telephony – in much the same way cable affected broadcast television when the Supreme Court upheld the Commission’s ancillary authority to impose certain regulations on cable in *Southwestern Cable*.⁷⁹ But the Commission paints with too broad a brush. The question is not simply whether the Internet affects other regulated communications services or serves as a competitive alternative to them. Rather, the Commission must show that net regulation is needed to ensure the effective performance of its specific substantive responsibilities with respect to regulated services. In *Southwestern Cable*, for example, the Court found that to be the case because cable television risked undermining the entire system of local broadcasting through importation of out-of-market broadcast signals and certain regulation of cable was thus necessary to ensure the continued effectiveness of the regulatory regime in Title III of the Communications Act. *See* 392 U.S. at 175-76. But the Court’s ruling in *Southwestern Bell* did not “recognize[e] sweeping authority over [cable television] as a whole,” but rather depended on a specific showing that the particular regulation in question was ancillary to “specifically delegated powers under the Act.” *NARUC II*, 533 F.2d at 612-13. That is confirmed by the Supreme Court’s holding in *Midwest Video II*, where the Court struck down other broad requirements on cable companies that are directly analogous to those that the Commission has proposed here as being unnecessary to carry out its expressly assigned responsibilities.

Here, neither the Commission nor proponents of net regulation can show that such regulation is needed to prevent services offered over the Internet from undercutting the effectiveness of Commission regulation of cable, broadcast, or telephony. The Commission

⁷⁹ *See* FCC Comcast Br. at 43-46.

instead argues that increased net regulation is needed to allow Internet-based video and telephony services to fulfill their promise as competitive alternatives to regulated services. But that is wrong on two levels. First, the Commission cannot make a showing that its proposed regulations are in fact needed to accomplish that goal – to the contrary, as explained above, competition already is flourishing in the Internet ecosystem, including for video and telephone services. Second, the Commission cannot justify exercise of ancillary authority on the ground that a proposed regulation may advance a policy goal that the Commission believes to be desirable. Indeed, that logic would know virtually no limit since it would allow the Commission to impose the full panoply of economic regulation, including rate regulation, on any Internet-based application or service that arguably competed with cable, broadcast, or telephony – including, for example, not only VoIP and services such as Hulu.com that are specifically television-related, but also email, instant messaging, chat rooms, and other technologies that can be used as an alternative to making a phone call or distributing video.

Ancillary authority does not give the Commission such *carte blanche* regulatory authority over the Internet. As noted above, even in the cable context to which the Commission points, in *Midwest Video II*, the Supreme Court rejected the Commission’s attempt to impose common carriage access obligations on cable operators that were intended to promote local-originated programming – one of the objectives of Commission broadcast regulation – as falling outside of its ancillary authority. As it explained, ancillary authority does not exist whenever regulation would advance a general policy objective, but only where “necessary to ensure the achievement of the Commission’s statutory responsibilities.” *Id.* at 706.

Finally, Title III also does not provide a source of authority for the Commission to impose net regulation on wireless services. As noted above, section 303(r) gives the

Commission authority to promulgate rules and conditions in connection with services that use the radio spectrum, that authority is not unbounded, but rather is cabined to rules and conditions that “may be necessary to carry out the provisions of this chapter.” Thus, the Commission would need to be able to point to some other provision in Title III that authorized net regulation. No such provision exists. Moreover, the Commission has previously concluded that mobile wireless broadband Internet access service is not a “commercial mobile radio service” and therefore is not subject to the provision in section 332 of the Act that generally requires that providers of commercial radio service shall be treated as common carriers. *See Wireless Broadband Order* ¶¶ 37-56. Rather, wireless broadband Internet access is an information service, and thus, as with wireline broadband Internet access, imposing common carriage-like requirements would rewrite the legislative scheme. As the Commission itself put it, “[c]oncluding that mobile wireless broadband Internet access service, as an information service, should not be included in the CMRS definition or subject to Title II common carrier obligations applicable to telecommunications service providers is most consistent with Congressional intent to maintain a regime in which information service providers are not subject to Title II regulations as common carriers.” *Id.* ¶ 41. In fact, the Commission’s proposed rules would actually conflict with section 326 of the Act, which states that “no regulation or condition shall be promulgated or fixed by the Commission which shall interfere with the right of free speech by means of radio communication.” As explained below, net regulation would have just such an effect by interfering with the speech rights of broadband access providers, as well as application and content providers.

3. The Ancillary Authority Theories Used in an Attempt To Justify Net Regulations, if Accepted, Would Give the Commission Far-Reaching Authority Over the Internet.

Net regulation proponents have advanced these and related theories of ancillary authority in an attempt to justify regulation of broadband access providers (in particular, wireline telephone company and cable providers). But those theories have no obvious stopping point that would preclude the Commission from using them to regulate the Internet more generally.

For example, many incumbent providers of Internet-related services such as Google and Amazon have their own networks or rely on another company's content delivery network (e.g., Akamai) to, among other things, circumvent congested points on the Internet to bring data as close as possible to the end user. Under the theories described above, the Commission likely would have jurisdiction to regulate those networks as well and, for example, impose nondiscrimination and other obligations on Internet content and application providers.⁸⁰ After all, if Amazon or Google refused to connect its network with that of a particular broadband carrier, and users of that broadband carrier could no longer reach Amazon or Google (or could do so only at much slower speeds), then the same principles of "net neutrality" should apply to them. And if the Commission's authority to impose interconnection and related obligations is not confined to telecommunications networks, then there would be no reason the Commission could not step in to mandate and oversee such interconnection. Similarly, the broad theory of ancillary authority that would be needed to justify net regulation likely would allow the Commission the authority to regulate application providers and all manner of practices on the Internet (e.g., caching and peering) that have up until now been well understood to be free of regulatory interference and have functioned quite well.

⁸⁰ Because these entities offer services that constitute "information services," they fall within Title I of the Act. If the Commission had ancillary authority to regulate broadband Internet access services, that would be equally true for the services provided by these other actors.

Thus, the theories of ancillary authority advanced by net regulation proponents are breathtakingly broad in potential scope and would justify Commission regulation of virtually all aspects of the Internet. As such, they run counter to the widely recognized understanding that the Internet has been successful in substantial measure because it has *not* been subject to regulatory requirements that limited the flexibility to innovate and deterred investment and growth. But if those theories were adopted, that would mean that all members of the Internet ecosystem would be subject to the regulatory dictates of the Commission.

B. The Proposed Rules Would Not Withstand Constitutional Scrutiny.

1. The Presence of Substantial Constitutional Problems Limits the Commission’s Authority to Adopt Net Regulations.

The Commission’s authority to adopt rules that raise a substantial constitutional problem is limited where no statute unambiguously requires it to do so.⁸¹ Courts have consistently held that agencies may not use their discretion to interpret ambiguous statutes to impose constitutionally problematic rules.⁸² As the D.C. Circuit has explained, “the constitutional avoidance canon of statutory interpretation trumps *Chevron* deference.” *University of Great Falls v. NLRB*, 278 F.3d 1335, 1340–41 (D.C. Cir. 2002).

The Supreme Court has applied this principle of constitutional avoidance specifically to hold that agencies lack authority to impose rules that raise constitutional questions under the First Amendment absent a specific statutory directive. In *Edward J. DeBartolo Corp.*, the National Labor Relations Board interpreted an ambiguous provision of the National Labor

⁸¹ *Solid Waste Agency of N. Cook Cty. v. Army Corps of Eng’rs*, 531 U.S. 159, 173–74 (2001); *Edward J. DeBartolo Corp. v. Florida Gulf Coast Bldg. & Constr. Trades Council*, 485 U.S. 568, 574–75 (1988); *NLRB v. Catholic Bishop of Chicago*, 440 U.S. 490, 507 (1979).

⁸² *E.g., Hernandez-Carrera v. Carlson*, 547 F.3d 1237, 1244 (10th Cir. 2008) (“It is well established that the canon of constitutional avoidance does constrain an agency’s discretion to interpret statutory ambiguities, even when *Chevron* deference would otherwise be due.”).

Relations Act to prohibit union members from distributing handbills on mall property when the handbills advocated a consumer boycott of the mall. 485 U.S. at 570–73. The Court found that Board lacked authority to adopt the construction because it posed “a substantial issue of validity under the First Amendment.” *Id.* at 576.

The D.C. Circuit has similarly applied the doctrine of constitutional avoidance to hold that the Commission lacks authority under the Communications Act to impose rules that raise a substantial takings issue in an “identifiable class of cases,” unless the rules are specifically authorized by Congress. *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441, 1445 (D.C. Cir. 1994). In *Bell Atlantic*, the court vacated the Commission’s rules that gave third parties the right to physically collocate in telephone companies’ central offices because those rules appeared to effect a per se physical taking. *Id.* at 1446. The court explained that “the constitutional implications of the Commission’s action” required a “strict test of statutory authority.” *Id.* at 1447.

The scope of the Commission’s authority is also constitutionally constrained in another way. Under the separation of powers embodied in the Constitution, Congress cannot delegate lawmaking powers to an agency without providing sufficient standards and principles such that the agency is doing no more than executing Congress’s will. *See generally Whitman*, 531 U.S. at 472 (2001); *J.W. Hampton*, 276 U.S. at 409. An expansive interpretation of Commission jurisdiction that provided it a roving mandate to regulate the Internet in the absence of Congressional standards would run headlong into this constitutional limit.

Nothing in the Communications Act expressly requires the Commission to issue “net neutrality” rules or provides it the necessary Congressional standards for doing so. Because the

proposed rules raise substantial constitutional problems under the First Amendment and the Takings Clause of the Fifth Amendment, the Commission lacks authority to impose them.

2. The Commission's Proposed Net Neutrality Rules Violate The First Amendment.

Notwithstanding the rhetoric of some proponents of Internet regulation, it bears emphasis that the First Amendment does not regulate private parties – it protects them. The First Amendment comes into play only when *the government* imposes restrictions affecting speech. Net regulations therefore cannot be justified on the theory that they further First Amendment rights or values. To the contrary, the proposed rules would constitute precisely the type of state action that endangers First Amendment rights. Broadband Internet access providers, like newspapers, other publishers, and members of the media generally, engage in protected speech. The proposed rules would restrict the free speech of those private parties in violation of the First Amendment.

Although the sweep of the Commission's proposed rules is far from clear, the Commission's rules could infringe broadband providers' First Amendment rights both directly, by regulating the speech in which providers engage, and indirectly, by increasing costs associated with broadband providers' means of communication. The Commission has not provided evidence of any government interest that would warrant rules that limit speech in that manner beyond mere speculation about hypothetical future possibilities, and the kinds of broad proscriptive rules proposed here are not even arguably narrowly tailored to achieve legitimate goals. Speech-limiting restrictions of that sort therefore could not be sustained under any form of First Amendment scrutiny. And the serious First Amendment questions raised by the proposed rules confirm that the Commission lacks the authority to promulgate them.

a) The Proposed Rules Would Restrict Broadband Providers' Speech in Multiple Ways.

Although the scope of the Commission’s proposed rules remains unclear, net regulation could impinge on broadband providers’ speech in violation of the First Amendment in at least three ways.

First, any Commission regulation of “managed,” “specialized,” or other differentiated services that limits network providers’ ability to offer chosen content – whether their own or that of their partners – would restrict their speech. That would be true whether the Commission prohibits or restricts such services directly or indirectly by limiting the capacity network providers can allocate to such services. For example, broadband providers engage in speech by providing video programming to their customers, and these video services are becoming increasingly integrated with the Internet. Verizon’s FiOS TV service, for example, provides access to selected Internet content such as Facebook and Twitter through its Widgets. Such content – whether the provider’s own or from a third-party partner – constitutes protected speech.⁸³ To the extent any rules restricted providers’ ability to offer these services, that kind of restriction would constitute direct regulation of protected speech in violation of the First Amendment.⁸⁴

⁸³ See *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.”); *Simon & Schuster, Inc. v. Members of New York State Crime Victims Bd.*, 502 U.S. 105, 117 (1991) (when Internet service providers “contract[] with [others] to transmit [others’] speech,” they act as members of the media protected by the First Amendment and “[a]ny ‘entity’ that enters into such a contract becomes by definition a medium of communication, if it was not one already.”); *Hurley v. Irish-American Gay, Lesbian & Bisexual Group of Boston*, 515 U.S. 557, 570 (1995) (First Amendment precedent does not “require a speaker to generate, as an original matter, each item featured in the communication”).

⁸⁴ See, e.g., *Hurley*, 515 U.S. at 568-70; *Miami Herald Pub. Co. v. Tornillo*, 418 U.S. 241, 256-57 (1974).

Similarly, in the case of storefronts or app stores, providers take great care to manage the look and feel of their stores and exercise discretion over the content and applications (both their own and from third-party partners) they make available in those stores. Again, any Commission regulations that deny providers the ability to manage their stores in that manner would directly restrict speech. In particular, that kind of regulation would prohibit a broadband provider from promoting or featuring certain chosen content in accordance with its own judgment even while it provided access to all lawful content on the Internet through traditional Internet access services—such decisions involve editorial discretion that clearly is protected by the First Amendment.⁸⁵ The end result of such a rule would be to deter, rather than facilitate, speech: if a provider were required to allow access to *all* content or applications into the provider’s storefront or application store, there would be a real deterrent to offering any at all.⁸⁶ Some proponents of net regulation likewise favor rules that would have the effect of restricting a provider’s ability to determine the level of capacity available for its own speech – such as video services, storefronts, and the like – as compared to capacity available for traditional Internet access services. Any

⁸⁵ See *American Library Ass’n*, 539 U.S. at 207-08 (rejecting argument that because library “d[id] not review every Web site that it makes available,” it should have less discretion in deciding what Internet materials it did make available, explaining that a “library’s failure to make quality-based judgments about all the material it furnishes from the Web does not somehow taint the judgments it does make”); *Hurley*, 515 U.S. at 568-70 (“[A] private speaker does not forfeit constitutional protection simply by combining multifarious voices, or by failing to edit their themes to isolate an exact message as the exclusive subject matter of the speech.”); see also *Tornillo*, 418 U.S. at 258 (“The choice of material to go into a newspaper, and the decisions made as to limitations on the size and content of the paper, and treatment of public issues and public officials—whether fair or unfair—constitute the exercise of editorial control and judgment” protected by the First Amendment.).

⁸⁶ See *Arkansas Educ. Tel. Comm’n v. Forbes*, 523 U.S. 666, 681 (1998) (“Were it faced with the prospect of cacophony, on the one hand, and . . . liability, on the other, a public television broadcaster might choose not to air candidates’ views at all.”).

such restrictions would restrict a provider's ability to engage in its own protected speech and impermissibly "diminish the free flow of information and ideas."⁸⁷

Second, by increasing costs or limiting revenues, the proposed rules could limit deployment of networks or new capabilities, resulting in fewer consumers to whom network providers could deliver their speech-related services (or fewer types of speech they could transmit) and thereby limiting protected speech. Broadband networks are the modern equivalent of the microphone or printing press, a means providers use to facilitate and transmit speech on a large scale. Depending on the rules adopted, however, regulation could require broadband providers, in order to engage in their protected speech, to incur network costs unrelated to that speech. The proposed rules also could impose other costs that have the effect of limiting the provider's ability to speak. For example, rules that limit potential business models or sources of revenue that are necessary for providers to fund broadband networks (and their expansion) would have such an effect. If rules were to prohibit providers from featuring paid content on their networks or providing managed or specialized services in addition to traditional Internet access or charging application and content providers for various services they might provide, they would unlawfully limit revenue needed to pay for network investment.⁸⁸ And that type of economic burden could make it uneconomical to expand broadband coverage, thereby limiting the reach and capacity of network providers' "microphones" and thus the ability of those providers and their partners to speak.⁸⁹

⁸⁷ *Turner I*, 512 U.S. at 656 (describing the law invalidated in *Tornillo*).

⁸⁸ *See Grosjean v. American Press Co.*, 297 U.S. 233, 244-49 (1936) (invalidating tax on newspaper advertisements).

⁸⁹ *See 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"); *Tornillo*, 418 U.S. at 256-57 (invalidating statute imposing additional "cost in printing and composing time and materials").

Third, to the extent that any rules apply only to one subset of providers in the Internet ecosystem – as the Commission has proposed here – the First Amendment concerns would be amplified.⁹⁰ As noted above, the providers that appear to be the focus of the Commission’s proposed rules are but one part of the Internet ecosystem, and they compete with other providers that the Commission’s draft rules would appear to exempt from regulation. The lines between “network” providers and content, application, or device providers on the “edge” of networks is largely artificial today, and will become more so over time. While regulatory obligations targeted at one subset of the Internet industry is bad policy and unlawful for the reasons explained above, such discriminatory distinctions among speakers is also anathema to the First Amendment. Indeed, the Supreme Court has repeatedly recognized that such distinctions and discrimination among different classes of speakers is subject to strict scrutiny.⁹¹ Thus, any regulation that limits the ability or manner in which a “network operator” speaks, while leaving Google, Akamai, Amazon, or others free from such regulation for their own, competing speech would run afoul of the First Amendment.

b) The Proposed Rules Could Not Survive First Amendment Scrutiny.

⁹⁰ See *Comcast Cablevision of Broward County, Inc. v. Broward County, Fla.*, 124 F. Supp. 2d 685, 686, 692 (S.D. Fla. 2000) (invalidating ordinance requiring “any cable system franchisee to provide any requesting Internet service provider access to its broadband Internet transport services on rates, terms, and conditions at least as favorable as those on which it provides such access to itself,” which “single[d] out cable operators from all other speakers and discriminate[d] further against those cable operators who ch[o]se to provide Internet content”).

⁹¹ See *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*, 460 U.S. at 592-93 (“A tax that . . . targets individual publications within the press, places a heavy burden on the State to justify its action.”); *Arkansas Writers’ Project, Inc. v. Ragland*, 481 U.S. 221, 228-29 (1987) (invalidating under strict scrutiny “sales tax scheme [that] treats some magazines less favorably than others”).

When government regulation prohibits or limits protected speech, compels a speaker to facilitate the speech of others in a way that threatens to deter or burden the speaker own speech,⁹² interferes with a speaker’s judgment on what speech to feature or promote,⁹³ or imposes costs only on one medium of communication⁹⁴ – all of which the proposed regulation potentially threaten to do – it is subject to the highest form of First Amendment scrutiny, known as strict scrutiny. This standard of review is virtually always fatal to a governmental restriction on speech, except for very rare cases such as child pornography and shouting fire in a crowded theater.

Although there might be an exception to the application of strict scrutiny when a speaker owns a medium of transmission and can create a bottleneck restricting all other speakers,⁹⁵ that narrow exception would be inapplicable to broadband Internet service. As explained above, the courts and this Commission have repeatedly recognized that broadband services are subject to strong and growing competition, and thus there is no bottleneck. In any case, even under that exception, governmental restrictions remain subject to intermediate constitutional scrutiny. Under intermediate scrutiny, a regulation cannot be sustained unless “it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no

⁹² See *Tornillo*, 418 U.S. at 256-57 (invalidating state law compelling newspapers to print certain material after recognizing (1) “the penalty resulting from the compelled printing . . . exacted in terms of the cost in printing and composing time and materials and in taking up space that could be devoted to other material the newspaper may have preferred to print” and (2) the “economic realit[ies]” making it impossible to engage in “infinite expansion” of capacity to carry speech); see also *Turner I*, 512 U.S. at 600.

⁹³ See *Hurley*, 515 U.S. at 568-70; *Tornillo*, 418 U.S. at 256-57..

⁹⁴ See *Minneapolis Star*, 460 U.S. at 588, 592-93 (“A tax that singles out the press . . . places a heavy burden on the State to justify its action.”); *Ark. Writers’ Project*, 481 U.S. at 228 (invalidating tax on certain magazines).

⁹⁵ See *Turner I*, 512 U.S. at 657.

greater than is essential to the furtherance of that interest.”⁹⁶ In reviewing an asserted government interest, the agency “must demonstrate that the recited harms are real, not merely conjectural, and that the regulation will in fact alleviate these harms in a direct and material way.” And a regulation cannot survive unless the limitation on speech “is no greater than is essential to the furtherance” of the government’s interests.⁹⁷ Review of the government’s justification for a limitation on speech is more searching when the speech-restricting regulation is promulgated by an agency rather than Congress.⁹⁸

The proposed rules would violate the First Amendment whether reviewed under strict or intermediate scrutiny. The Commission has provided no justification for adopting the proposed infringements on the protected speech of broadband providers or their partners, much less a justification that could survive First Amendment scrutiny. As described above, there is no evidence of an industry problem that would justify regulation. To the contrary, 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. And as broadband competition increases, the danger of any emerging problem is even less likely. In the face of this empirical evidence, the Commission is left to rely on speculation about hypothetical incentives

⁹⁶ *Id.* at 662 (internal quotation marks omitted).

⁹⁷ *Id.*.

⁹⁸ *Turner Broadcasting Sys., Inc. v. FCC*, 520 U.S. 180, 195 (1997) (*Turner II*) (When “reviewing the constitutionality of a statute,” the Court’s “sole obligation is to assure that, in formulating its judgments, Congress has drawn reasonable inferences based on substantial evidence.” That “substantiality is to be measured . . . by a standard more deferential than [the Court] accord[s] to judgments of an administrative agency.”).

and future possibilities. That is not sufficient to survive any level of First Amendment scrutiny.⁹⁹

The proposed rules also would violate the First Amendment because they would not be narrowly tailored to address any purported threat to maintaining the open Internet. As described below, the Commission has available to it “significantly less restrictive ways to achieve” that goal, including a focus on increased transparency that will provide consumers meaningful information and allow them to make informed choices in response to broadband providers’ practices.¹⁰⁰

c) The Commission Lacks the Authority To Promulgate Rules That Create First Amendment Problems.

Finally, in light of the First Amendment questions raised by rules that limit speech as described above, the Commission lacks the authority to promulgate them. At the very least, those kinds of rules would raise serious questions under the First Amendment. And in a situation “[w]here an administrative interpretation of a statute invokes the outer limits of Congress’s power,” the agency must point to a “clear indication” in the statute that “Congress intended that

⁹⁹ See, e.g., *Turner I*, 512 U.S. at 664 (“When the Government defends a regulation on speech as a means to redress past harms or prevent anticipated harms, it must do more than simply posit the existence of the disease sought to be cured.”); *Edenfield v. Fane*, 507 U.S. 761, 770-771 (1993) (intermediate scrutiny requires more than “supposition” or “speculation or conjecture” – “a governmental body seeking to sustain a restriction on commercial speech must demonstrate that the harms it recites are real and that its restriction will in fact alleviate them to a material degree.”).

¹⁰⁰ *Turner II*, 520 U.S. at 227 (Breyer, J., concurring) (explaining that, with respect to must-carry limitations, reviewing court is “require[d] . . . to determine . . . whether there are significantly less restrictive ways to achieve Congress’ . . . objectives, and also to decide whether the statute, in its effort to achieve those objectives, strikes a reasonable balance between potentially speech-restricting and speech-enhancing consequences”).

result.”¹⁰¹ There is no clear statement of authority here. In fact, Congress has already stated “the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.” 47 U.S.C. § 230(b)(2). The Commission has no authority to adopt rules to the contrary.

3. The Commission Lacks Authority To Adopt Rules Because They Would Result in an Uncompensated Taking.

Because the rules would compel network operators to dedicate their networks (or a portion of them) to the use of others on terms to which the operators would not agree, the rules unquestionably would take private property. Indeed, the Commission’s entire rationale for the rules is that network providers in the future might not allow others to use their networks absent governmental compulsion. The Act, however, does not specifically direct the Commission to take property in this way. Nor do the proposed rules make any provision for just compensation. The Commission accordingly lacks authority to adopt such requirements.

a) The Proposed Rules Would Effect A Physical And Regulatory Taking.

To the extent the proposed rules would prohibit the owner of a broadband network from setting the terms on which other providers can occupy its property, the rule would give those providers the equivalent of a permanent easement on the network—a form of physical occupation.¹⁰² Such a rule would amount to a per se physical taking under *Loretto v.*

Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982). As Judge Williams observed, the “creation of an entitlement in some parties to use the facilities of another, gratis, would seem on

¹⁰¹ *Solid Waste Agency*, 531 U.S. at 172; *see, e.g., Catholic Bishop of Chicago*, 440 U.S. at 500-01 (where agency’s “exercise of its jurisdiction . . . would give rise to serious constitutional questions” under the First Amendment, Court requires “the affirmative intention of the Congress [to sanction that exercise of jurisdiction to be] clearly expressed”).

¹⁰² *Nollan v. California Coastal Comm’n*, 483 U.S. 825, 828 (1987).

its face to implicate *Loretto*.¹⁰³ Indeed, insofar as the rules would authorize third-party occupation of network facilities, they would be directly analogous to the physical collocation rules that the D.C. Circuit held the Commission lacked authority to implement.¹⁰⁴

The proposed rules also would effect a regulatory taking under *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978). The government intentionally induced network operators to invest billions of dollars in broadband infrastructure by telling those operators that the government would allow them to manage access to network facilities and to use those facilities to offer the products their customers desired.¹⁰⁵ The proposed rules would represent an abrupt about-face, potentially forcing the owners of broadband networks to accept a permanent physical occupation of their facilities on terms the government sets or limiting their ability to offer differentiated services over their property. As a result, they would frustrate broadband

¹⁰³ *Turner Broad. Sys., Inc. v. FCC*, 819 F. Supp. 32, 67 n.10 (D.D.C. 1993) (Williams, J., dissenting); see also *In re WXTV*, 15 FCC Rcd 3308, 3320 (2000) (separate statement of Commissioner Furchtgott-Roth) (“it is not unreasonable to argue that when a broadcast station’s signal is mandatorily carried over a cable system, that carriage constitutes a permanent, physical occupation of the cable operator’s private property—and thus a *per se* taking of that property.”). Content providers’ occupation of the network is “physical” because digital content is converted into electrons that tangibly occupy limited physical space on the network. See, e.g., *CompuServe Inc. v. Cyber Promotions, Inc.*, 962 F. Supp. 1015, 1021 (S.D. Ohio 1997) (“Electronic signals generated and sent by computer have been held to be sufficiently physically tangible to support a trespass cause of action.”); *Thrifty-Tel, Inc. v. Bezenek*, 54 Cal. Rptr. 2d 468, 473 n.6 (Cal. Ct. App. 1996) (“[T]he electronic signals generated by the [defendants’] activities were sufficiently tangible to support a trespass cause of action.”); see *Loretto*, 458 U.S. at 450 (Blackmun, J., dissenting) (passing “electronic signal” through cable could constitute “physical touching”). Decisions suggesting that that “electrical impulses” and “electrons” have no physical presence are factually erroneous. See *Qwest Corp. v. United States*, 48 Fed. Cl. 672, 694 (Fed. Cl. 2001) (“electrical impulses”); *In re Pet’n of WRNN Lic. Co.*, 22 FCC Rcd 21054, 21058 ¶ 8 (2007), *aff’d Cablevision Sys. Corp. v. FCC*, 570 F.3d 83 (2d Cir. 2009).

¹⁰⁴ *Bell Atl.*, 24 F.3d at 1445.

¹⁰⁵ *Cable Modem Order*, 17 FCC Rcd at 4848 ¶ 95 (“[W]e believe that forbearance from the requirements of Title II and common carrier regulation is appropriate in this circumstance.”); see *id.* at 4826 ¶¶ 46–47 (explaining that an “open access regime” would undermine competition); *Triennial Review Order*, 18 FCC Rcd at 16,984 ¶¶ 3–5.

providers' substantial and reasonable investment-backed expectations,¹⁰⁶ shift the economic opportunity inherent in their networks to third parties,¹⁰⁷ and involve government action that takes the character of a compelled physical invasion.¹⁰⁸

b) The Commission Lacks Authority To Adopt Rules That Would Raise Substantial Takings Issues in an Identifiable Class of Cases.

The Commission may not adopt rules that raise a substantial takings issue unless Congress has expressly and specifically directed the Commission to impose such requirements, and the Commission or Congress has established a mechanism to provide just compensation for any taking. Because neither condition is met in this situation, the Commission lacks authority to adopt the proposed rules.

As noted, nothing in the Act authorizes the Commission to adopt the proposed rules. Certainly, the Act does not specifically and expressly require the Commission to adopt such rules. The Commission, however, may not impose rules that would result in a taking, or a substantial risk of a taking in an identifiable class of cases, unless Congress has so required. Congress has *exclusive* power to appropriate funds from the Treasury, and the Commission's general authority to administer the Communications Act cannot be construed as a delegation to

¹⁰⁶ *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979) (finding a taking when private party relied on ability to control access to marina in making investments, and government thereafter compelled private party to open the marina to the public).

¹⁰⁷ *Guggenheim v. City of Goleta*, 582 F.3d 996, 1020-21 (9th Cir. 2009) (finding a taking when government imposed rent control on owners of mobile home parks but did not regulate tenants' sale of homes, thus shifting economic opportunity from owner to tenant).

¹⁰⁸ *Penn Central*, 438 U.S. at 124 (noting that that a "'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government").

exercise discretion in a way that would “strike a blow at the power of the purse.”¹⁰⁹ Indeed, the D.C. Circuit recognized in *Bell Atlantic* that affording “*Chevron* deference to agency action that creates a broad class of takings claims, compensable in the Court of Claims, would allow agencies to use statutory silence or ambiguity to expose the Treasury to liability both massive and unforeseen.”¹¹⁰ As a result, the Commission may not adopt rules that result in a taking, or that raise serious takings issues, absent a “clear warrant” from Congress.¹¹¹

Further, the proposed rules provide no compensation for taking a broadband network owner’s property. The rules merely permit broadband providers to continue charging retail customers for access (and indeed would expressly prohibit them from charging application and content providers for various services). For two reasons, these revenues do not compensate them for the government’s taking. First, broadband providers cannot raise retail rates to offset the loss attributable to the taking. Providers presumably already charge prices that maximize revenue in a competitive environment. Second, in a competitive market, broadband providers, not the government, are responsible for the retail revenue they generate.¹¹² The government cannot take credit for revenue earned in a competitive environment. The revenue providers earn in that environment already belongs to them and cannot be deemed “compensation” for the

¹⁰⁹ *Bell Atlantic*, 24 F.3d at 1445 (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).

¹¹⁰ *Bell Atlantic*, 24 F.3d at 1445.

¹¹¹ *Id.* at 1446.

¹¹² William P. Barr et al., *The Gild That Is Killing The Lily: How Confusion Over Regulatory Takings Doctrine Is Undermining The Core Protections Of The Takings Clause*, 73 GEO. WASH. L. REV. 429, 462 (2005) (“Revenues earned in a market open to competition are compensation for the risks the firm undertook when participating in the market. The extent of those returns, moreover, is a function of the competitive dynamic, not of regulatory action.”).

government's taking. See *Brooks-Scanlon Co. v. Railroad Comm'n of Louisiana*, 251 U.S. 396, 399 (1920) (“The plaintiff may be making money from its sawmill and lumber business but it no more can be compelled to spend that than it can be compelled to spend any other money to maintain a railroad for the benefit of others who do not care to pay for it.”).

The only way the government could take credit for retail revenues would be if it were to impose rate regulations *and* prevent competitive entry into the market.¹¹³ By limiting competition, the government could take credit for at least some of the revenue the utilities generate. But the Commission is not even considering that option, having recognized that “consumers are entitled to competition among network providers,” *NPRM* ¶ 5—nor should it. The proposed rules are therefore even more constitutionally problematic because they do not and cannot provide just compensation for the taking of private property.

C. Adoption of the Proposed Rules Would Be Arbitrary and Capricious.

In a series of orders over the last few years the Commission has ruled that regulation of broadband Internet access services would be unnecessary and unwise. In each instance, the Commission expressed its view that consumers are best served by free and open competition in the market for broadband Internet services because competition encourages investment, innovation, and expansion. The extensive regulation proposed in this rulemaking reflects an about-face from this policy. The Commission has offered no reasoned or supportable justification for this radical departure. Nor does it have any basis that would justify imposing such regulations on broadband Internet access providers, while leaving others in the Internet

¹¹³ *Cf. id.* at 462 (“The regulator is ‘responsible’ for generating revenue from a supporting service only if the regulator sets the rate for that service above cost and prevents competitive entry.”).

ecosystem free from comparable regulations. As a result, the proposed rules are arbitrary and capricious in violation of the APA.

1. The Commission Lacks a Reasoned Basis for Departing from Its Prior Orders.

Any rules the Commission adopts here will not be written on a blank slate. Over the past decade, the Commission has repeatedly concluded that broadband Internet access services, regardless of the platform over which they are offered, should be free of common carriage and other Title II regulations.¹¹⁴ In doing so, the Commission found that the market was evolving rapidly to meet consumer demand and increasingly competitive, with no sign of “market failure.”¹¹⁵ The Commission further concluded that a “minimal regulatory environment” and “regulatory certainty” were needed to foster competition, investment, and innovation.¹¹⁶ Accordingly, imposing the costs inherent in regulation would not serve consumer interests. The Commission’s decision to keep broadband access service free of regulation was affirmed by the Supreme Court. *National Cable & Telecommunications Ass’n v. Brand X Internet Services*, 545 U.S. 967, 997 (2005).

The Commission does not even mention these rulings in its *NPRM*, let alone provide the necessary reasoned basis for dramatically departing from them and imposing the equivalent of

¹¹⁴ See *supra* nn. 3-4.

¹¹⁵ See, e.g., *Wireline Broadband Order*, 20 FCC Rcd 14877-78 ¶¶ 44, 47; *Triennial Review Order*, 18 FCC Rcd at 17141-42, ¶ 272; *Verizon Forbearance Petition*, 19 FCC Rcd at 21504 ¶ 19; *United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service As an Information Service*, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006).

¹¹⁶ See, e.g., *Cable Modem Order*, 17 FCC Rcd at 4802 ¶ 5 (“[B]roadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market.”); *Wireline Broadband Order*, 20 FCC Rcd at 14855 ¶ 1 (adopting a “minimal regulatory environment for wireline broadband Internet access services to benefit American consumers and promote innovative and efficient communications”); *Wireless Broadband Order*, 22 FCC Rcd at 5908-14 ¶¶ 18-34.

common carriage requirements.¹¹⁷ As the Supreme Court explained last Term, an “agency must show that there are good reasons for the new policy.” *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009). In particular, it must “provide a more detailed justification than what would suffice for a new policy created on a blank slate” 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.” *Id.* “It would be arbitrary or capricious to ignore such matters. In such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.”¹¹⁸

The Commission does not and cannot provide the necessary “detailed justification” here. As noted, the Commission previously found that regulation of broadband Internet access services was inappropriate because the market is developing in a competitive manner and that regulation would suppress the rapid innovation and investment needed to meet consumer demands. Its proposed rules rest on diametrically opposed assumptions, yet the Commission does nothing to explain this contradiction. Indeed, it does not even purport to undertake a market power analysis at all. And, as discussed above, if it did so, the Commission could reach no other conclusion

¹¹⁷ See *Brand X*, 545 U.S. at 982-983 (an “unexplained inconsistency” between old and new policies supports vacating agency interpretation); *Motor Veh. Mfrs. Ass’n v. State Farm Ins.*, 463 U.S. 29 (1983); *Verizon Telephone Companies v. FCC*, 570 F.3d 294, 304 (D.C. Cir. 2009) (rejecting new market-power test where agency failed to “justify its departure from its precedent” and did not provide “a satisfactory explanation [of the new approach] when it has not followed such approaches in the past.”); *Comcast Corp. v. FCC*, 526 F.3d 763, 769 (D.C. Cir. 2008) (“[A]n agency’s unexplained departure from precedent must be overturned as arbitrary and capricious.”).

¹¹⁸ *Id.*; see also *id.* at 1824 (Kennedy, J. concurring) (“[A]n agency’s decision to change course may be arbitrary and capricious if the agency ignores or countermands its earlier factual findings without reasoned explanation for doing so. An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past, any more than it can ignore inconvenient facts when it writes on a blank slate.”).

than that the broadband Internet access marketplace is even *more* competitive than it was when the Commission found that regulations would be harmful and that it remains characterized by rapid innovation and investment. Nor does the Commission address the “serious reliance interests” that were engendered by its prior decisions – broadband network operators have invested billions of dollars in deploying network facilities, predicated in part on the ability to offer managed and specialized services and private network offerings over those facilities. As discussed above, the ability to offer such services is a critical part of the business case for deploying them. Yet the Commission’s rules could inhibit providers’ ability to do so.

The Commission’s proposed reversal would be all the more arbitrary given the absence of any evidence of a problem that needs to be solved. This is not a case where, since the Commission issued its deregulatory orders, the broadband access market had been beset by problems of Internet service providers blocking access to or degrading lawful content or engaging in anticompetitive conduct. As noted, the Commission can point to only two isolated incidents, both of which were quickly addressed – and neither of which, in any event, were even relevant to the broad nondiscrimination or other rules of the type the Commission now proposes. Given this lack of any empirical evidence of an actual problem, the Commission’s speculation about hypothetical incentives and abilities that broadband access providers might have to act anticompetitively is not enough. As the D.C. Circuit explained, in words equally applicable here, “the Commission has not shown a substantial enough probability of discrimination to deem reasonable a prophylactic rule as broad as the [new rule here], especially in light of the already extant conduct rules. A single incident since the [earlier] must-carry rules were promulgated—and one that seems to have been dealt with adequately under those rules—is just not enough . . .” *Fox TV Stations v. FCC*, 280 F.3d 1027, 1051 (D.C. Cir. 2002); *see also BellSouth*

Telecommunications, Inc. v. FCC, 469 F.3d 1052, 1060 (D.C. Cir. 2006) (agency “prediction of future trends” gives it “no license to ignore the past when the past relates directly to the question at issue,” especially when it fails to “offer[] some reason for believing that the future is likely to differ from the past”). The Commission’s claim that the proposed rules would “ameliorate[] a real industry problem but then citing no evidence demonstrating that there is in fact an industry problem is not reasoned decisionmaking.” *National Fuel Gas Supply Corp. v. FERC*, 468 F.3d 831, 843 (D.C. Cir. 2006).

The Commission’s extension of the proposed rules to wireless broadband services would be especially arbitrary and capricious. Not only would such a decision fly in the face of the repeated decisions described above, but it would be contrary to Congress’s direction that the Commission should pursue a deregulatory approach to wireless offerings. As the Commission has recognized, in the Omnibus Budget Reconciliation Act of 1993 (“OBRA”),¹¹⁹ Congress rejected the preexisting regulatory regime, in which wireless providers were often subject to the same common carrier regulations that applied to legacy wireline carriers.¹²⁰ OBRA “dramatically revise[d] the regulation of the wireless telecommunications industry.”¹²¹ In the

¹¹⁹ Pub. L. No. 103-66, 107 Stat. 312, Title VI, 6002(b) (1993).

¹²⁰ See Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 1411, 1414 ¶ 3 (1994) (“*Second CMRS Report and Order*”).

¹²¹ *Connecticut DPUC v. FCC*, 78 F.3d 842, 845 (2d Cir. 1996); *Cellnet Communs. v. FCC*, 149 F.3d 429, 433 (6th Cir. 1998). See also *Iberia Credit Bureau, Inc. v. Cingular Wireless*, No. 6:01-2148, 2009 WL 3672456, at * 3 (W.D. La. Nov. 2, 2009) (“The 1993 amendment was, in large part, in recognition of the rapid growth of wireless communication methods, in particular cellular phones. The goal of the amended § 332 was to deregulate commercial mobile radio service (‘CMRS’) providers to encourage development of mobile services.”); *In Re Comcast Cellular Telecomms. Litig.*, 949 F. Supp. 1193, 1197 (E.D. Pa. 1996) (observing that Congress’s “stated goals [were] regulatory uniformity and deregulation of CMRS”); *id.* at 1198 (citing Congress’s “goal of fostering rapid and uniform development of the CMRS industry through deregulation”).

Commission’s words, “the statutory plan is clear”¹²² – the “overarching congressional goal” is to “promot[e] opportunities for economic forces – not regulation – to shape the development of the CMRS market.”¹²³ In summarizing its consistently deregulatory approach to mobile wireless providers, the Commission has stated that it relies “on market forces, rather than regulation, except when there is market failure” that would justify regulatory intervention.¹²⁴ Of particular note here, the Commission has recognized that “[t]he continued success of the mobile telecommunications industry is significantly linked to the ongoing flow of investment capital into the industry,” and that it “thus is essential that our policies promote robust investment in mobile services,” including “a stable, predictable regulatory environment that facilitates prudent business planning.”¹²⁵

Although OBRA unsurprisingly focused on CMRS voice services given its enactment in 1993, the wireless broadband marketplace of 2010 is even more dynamic and competitive than the CMRS marketplace of 1993. It would be perverse for the Commission to impose even greater regulation on wireless broadband services than on traditional voice services. Congress’s rationales for prescribing a deregulatory approach to the latter apply with even greater force to wireless broadband offerings today. There have been *no* allegations of any harm in the wireless

¹²² Report and Order, *Petition on Behalf of the State of Hawaii*, 10 FCC Rcd 7872, 7874 ¶ 10 (1995) (“*Hawaii R&O*”).

¹²³ Third Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 7988, 8004 ¶ 29 (1994). See also Memorandum Opinion and Order, *Wireless Consumers Alliance, Inc.*, 15 FCC Rcd 17021, 17034 ¶ 24 (2000) (“Section 332 was designed to promote the CMRS industry’s reliance on competitive markets in which private agreements and other contract principles can be enforced.”); Report and Order, *Petition of New York State Public Service Commission To Extend Rate Regulation*, 10 FCC Rcd 8187, 8190 ¶ 18 (1995) (OBRA incorporates a “general preference in favor of reliance on market forces rather than regulation.”).

¹²⁴ Memorandum Opinion and Order, *Orloff v. Vodafone Airtouch Licenses LLC, d/b/a Verizon Wireless*, 17 FCC Rcd 8987, 8998 n.69 ¶ 22 (2002).

¹²⁵ Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 1411, 1421 ¶ 22 (1993).

broadband market that the proposed rules could even purport to remedy. Moreover, there can be no claim of market failure, given the robust competition in the wireless broadband market.

Under these circumstances, there can be no justification for subverting Congress's preference for a market-oriented framework for wireless services.

2. The Proposed Regulations Are Arbitrary and Capricious Because They Discriminate Between Similarly Situated Entities.

The proposed rules would be unlawful under the APA for the independent reason that they discriminate between broadband Internet access providers and other members of the Internet ecosystem that do or could play “gatekeeping” roles on the Internet, and that have the same hypothesized incentives and abilities as broadband Internet access providers.

As the D.C. Circuit has explained, an agency acts arbitrarily and capriciously when it “applies different standards to similarly situated entities and fails to 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); *Airmark Corp. v. FAA*, 758 F.2d 685, 692 (D.C. Cir. 1985) (vacating orders failing to meet this standard as “patently arbitrary”). As explained above, the distinctions among networks, applications, and devices are rapidly eroding, with the result that numerous entities can engage in the types of behaviors that the Commission would single out with respect to broadband access providers.

Examples abound:

- Search engines such as Google exert far more of a practical effect on what content and applications users are aware of and access than do broadband access providers and can effectively block or degrade access simply by removing a particular site from their search results (or pushing it well down in the list of results).
- Google has its own global network and can decide what content gets carried on that network versus other Internet facilities and can prioritize its own service and content (or those of its partners) over others.

- Content delivery networks such as Akamai and Limelight and providers of caching services effectively allow particular content and application providers to “prioritize” traffic by purchasing their services. These network owners could engage in the same types of practices the Commission hypothesizes as to broadband access providers.
- Offerings such as the iPhone and Kindle clearly provide closed or managed platforms in which Apple and Amazon respectively serve a gatekeeping role and decide what applications a user may or may not run.
- The Kindle also is an example where the service provider pays for the wireless connectivity rather than the consumer, thus effectively bundling network access with content and applications.
- Disney blocks access to ESPN360 by consumers whose Internet service providers do not pay it a fee.
- Many Internet-based consumer applications involve network functionality and thus could engage in behavior that the Commission posits as “non-neutral.” Google Voice, for example, blocks calls to certain phone numbers – thereby stopping consumers from accessing particular content.¹²⁶

The point is not that all of these activities should be prohibited as unlawful – indeed, as noted above, most, if not all, of them, such as the development of the iPhone and Kindle, clearly have had significant consumer benefits. Rather, it is that these players occupy a substantially overlapping position with network providers. As a result, they also could engage in the same types of “anticompetitive” practices the Commission speculatively attributes to broadband providers. Thus, it would be arbitrary and capricious to isolate network providers in order to impose onerous rules on them, but not on other entities that are similarly situated and could engage in the same types of behavior.

VII. Other, Less Restrictive Alternatives Would Better Serve Consumers.

In deciding whether and how to act in the context of this proceeding, the Commission should focus on maximizing consumer welfare by promoting a framework of industry best

¹²⁶ See, e.g., Howard Berkes, *Google’s Voice Is Silent in Some Rural Areas*, NPR (Nov. 2, 2009), available at <http://www.npr.org/templates/story/story.php?storyId=114341718>.

practices or guidelines that provides for informed consumer choice. The goal cannot be to protect or help a particular group of competitors or a specific portion of the Internet ecosystem. Nor should it be to protect or freeze in place a particular “vision” of the public Internet. The Internet has evolved rapidly in just its brief history as a medium of mass communication and commerce as all members of the ecosystem have adapted to meet consumer demands, and there would be no justification for stopping that evolution in its tracks or to flash freeze certain practices or business models.

In the highly competitive Internet environment, the Commission can act most constructively by working to ensure that consumers have access to meaningful information that allows them to make informed choices. With well-informed consumers making decisions about what service to purchase, what content to access, and what applications to use, market forces will drive broadband access providers and other members of the Internet ecosystem to adopt practices and offer services that best satisfy consumer demands. Indeed, as discussed above, the need to satisfy consumers already requires broadband access providers to offer Internet access services that permit consumers to access all lawful content and applications, even absent any regulatory obligation to do so.

Thus, the Commission should facilitate the development of industry standards, self-regulatory codes, and best practices to promote transparency – practices that should apply to all providers throughout the Internet ecosystem, including providers of networks, applications, and devices. Such transparency will allows consumers to decide what practices, services, or devices best suit their needs – and the ones to which they object – and allow for policing of anti-consumer practices through public scrutiny, the possibility of reputational harm, and the risk of additional regulation. The fact that Madison River and Comcast ceased or altered their practices

quickly once they were disclosed demonstrates providers' recognition that perceptions about their conduct can cause them to lose subscribers and that the potentially anticompetitive conduct about which the Commission is concerned could be deterred through increased transparency.

The Commission should not mandate particular disclosures or practices through prescriptive regulations, however, which cannot keep pace with rapid changes in technology and consumer demand. Indeed, any attempt to regulate disclosure will quickly run into problems such as how to determine the level of detail that should be required. For example, too much information will have the practical effect of meaning that consumers will not read the disclosures – or understand them if they do. Moreover, because of the dynamic changes in technology, traffic patterns, security threats, and numerous other factors, mandated detailed disclosure would require frequent updates that likely would serve more to confuse than inform. In any case, mandated disclosures are not needed to provide the appropriate incentives. Broadband access providers need to have a reputation for treating customers fairly in order to compete successfully, and part of maintaining that reputation is to make meaningful disclosures about practices and terms that are important to consumers.

Even if any real problems developed notwithstanding competitive pressures to act in a pro-consumer manner and a greater commitment to transparency, existing laws could provide the remedy. Federal and state consumer protection, advertising, and contract laws, including those administered by the Federal Trade Commission, already guard against fraud, deception, and similar practices. Thus, for example, no additional rules are needed to prohibit a broadband access provider from affirmatively misleading consumers through a false statement about a material term related to its service or failing to provide access to all lawful content and applications if that is what the service provider has promised.

Likewise, antitrust laws are available to deal with anticompetitive practices in which a broadband access provider might engage. As the Federal Trade Commission has explained, “competitive issues raised in the debate over network neutrality regulation are not new to antitrust law, which is well-equipped to analyze potential conduct and business arrangements involving broadband Internet access.” *FTC Report* at 8. For example, antitrust laws are expressly designed to deal with concerns about a vertically integrated firm leveraging market power over one service (e.g., broadband access) to harm a competitor in a second (e.g., content). These laws have well-established means for undertaking the necessary rigorous economic analysis needed to assess whether allegations of such behavior in a particular instance amount to anticompetitive behavior that should be restricted or are simply manifestations of efficient competition. Similarly, the impact of discrimination on competition is a common focus of antitrust analysis by economists and courts, and antitrust enforcement thus provides a mechanism for addressing potential competitive concerns of the type raised by the Commission. (Becker/Carlton Decl. ¶¶ 14, 23.) There is no reason to substitute ill-defined, untested rules in place of the substantial body of antitrust precedent. (Katz Decl. ¶¶ 21-22, 80-81.) Indeed, given the lack of any identified problem to date, there would be no justification for the proposed rules to go beyond antitrust laws and impose prohibitions or remedies for conduct that is otherwise consistent with those laws. (*Id.*)

Finally, if, despite all this, the Commission does promulgate rules of any kind, it is imperative that those rules not single out broadband access providers and instead apply to all parts of the Internet ecosystem. Applying rules to only one set of competitors will compound the competition-distorting effects of those rules. The Commission has spent many years trying to remove the artificial distortions created by separate regulatory silos as telephone companies,

cable operators, wireless carriers, and others have increasingly competed with one another. It would make no sense to re-create that silo system of regulation on the Internet, where it is already clear that distinctions between networks, application and content, and devices are rapidly eroding. As described above, so-called “edge players” are increasingly providing network-based services. Other actors such as Google and Akamai have their own global networks used to deliver Internet content. Numerous others are in a position to favor their own or preferred content, such as Google, Yahoo!, Apple, Microsoft, and many others. Each of these actors have the same hypothetical abilities and incentives to act anticompetitively as do network providers, whether it be a search engine removing a competing site from its search results or a device manufacturer featuring or “prioritizing” particular applications or content. Thus, while the Commission should not impose prescriptive rules at all for the reasons set forth above, if it does so, whether with respect to transparency and disclosure or any other issues raised in this proceeding, any such rules should apply to all actors on the Internet.

CONCLUSION

The Commission should not adopt the proposed rules. Instead, the Commission should focus on maintaining an environment in which providers in all parts of the Internet ecosystem continue to have the incentives to invest and innovate and promoting transparency so that consumers can make well-informed choices that in turn will drive broadband access providers and all other Internet entities to maximize consumer value and meet customer demands.

Respectfully submitted,

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