

**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

**COMMENTS OF VERIZON AND VERIZON WIRELESS ON UNDER-DEVELOPED
ISSUES IN THE OPEN INTERNET PROCEEDING**

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I. INTRODUCTION AND SUMMARY

The record establishes that the sweeping regulation proposed by the Commission in this proceeding and the companion Title II “reclassification” proceeding would be unjustified and unlawful for any broadband Internet access service. That is all the more true for the two types of services that are the subject of the *Further Inquiry*¹ – wireless broadband and so-called “managed” or “specialized” services. In neither case is there evidence of an actual problem that needs to be addressed by regulation. Rather, both of these types of services are at their nascent stages and poised to unleash a new wave of investment and innovation that will result in new and different customer choices that no one can foresee.

Notwithstanding the unique technical and operational challenges associated with wireless services, the wireless marketplace is a picture of intense competition and robust innovation, with new and better services, devices and applications becoming available to consumers at a rapid pace. In addition, wireless broadband services are on the cusp of a revolution as providers begin to roll out 4G services that will bring greater speeds and capabilities and jumpstart cross-platform competition. As a result, now is exactly the wrong time to impose burdensome regulations, which would stifle this innovation and investment, deprive consumers of the resulting benefits, and limit the range of options from which consumers may choose.

Similarly, providers are only at the beginning of developing and offering managed and specialized service that will provide consumers with new choices. Today, they already offer services such as multichannel video (sometimes with access to certain Internet content such as Verizon’s Widgets) and application stores. But more are on the way, ranging from home

¹ *Further Inquiry Into Two Under-Developed Issues in the Open Internet Proceeding*, Public Notice, GN Docket No. 09-191, WC Docket No. 07-52; DA 10-1667 (Sept. 1, 2010) (“*Further Inquiry*”).

medical monitoring to SmartGrid services to others that no one has yet envisioned. Providers will continue to offer consumers the option of traditional, best efforts Internet access, but they also should be free to offer any other services they develop free of regulation, leaving consumers to decide whether to purchase those services in addition to, or instead of, traditional Internet access.

Rather than trying to restrict *any* new services, whether wireless broadband services or so-called “managed” or “specialized” services, the Commission should *encourage* experimentation and innovation and support the creation of the widest possible array of new service options for consumers. And it should promote informed consumer choice by encouraging all providers throughout the Internet ecosystem to disclose the key terms and characteristics of their services so that consumers themselves, rather than government fiat, can determine what services they want to receive and drive the continuing development of the Internet. That approach will best enhance consumer welfare. And it will avoid the morass of statutory authority and constitutional problems in which the Commission would find itself if it attempted to impose regulation of the sort described in the *Further Inquiry*.

The Commission also should continue to work together with Congress, industry, and other stakeholders towards the development of an appropriately tailored and legally sustainable legislative solution that relies on informed consumer choice and transparency, while providing the Commission with authority to address bad actors on a case-by-case basis if they should emerge. While preserving the open Internet and protecting consumers and competition, such a policy would maintain incentives for all providers in the Internet ecosystem to invest and innovate and increase the quality and range of choices available to consumers.

II. THE COMMISSION SHOULD NOT APPLY NEW REGULATORY REQUIREMENTS TO WIRELESS BROADBAND OR MANAGED OR SPECIALIZED SERVICES AND INSTEAD SHOULD PROMOTE INFORMED CONSUMER CHOICE SO CONSUMERS CAN DECIDE WHAT SERVICES THEY WANT AND CONTINUE TO DRIVE THE DEVELOPMENT OF THE BROADBAND MARKETPLACE.

Both wireless broadband and “managed” or “specialized” services have begun to bring enormous benefits to consumers – benefits that will only increase so long as they are not stifled by new burdensome regulations. In the case of wireless broadband services, the record unequivocally establishes that the marketplace is developing in a competitive manner, with no sign of a “market failure” that might justify regulatory intervention. Providers have made massive investments, consumers have benefitted from greater speeds, capabilities, and choices and prices have declined.² Wireless broadband networks are subject to fierce competition among national and regional providers. In its most recent Wireless Competition Report, the Commission found that as of November 2009, 90% of the population had a choice of two or more mobile broadband providers, and 76% had a choice of three or more mobile broadband providers.³

Since 2001, wireless carriers have made an average combined investment of more than \$22.8 billion per year to upgrade their networks. Verizon NPRM Comments at 22. Providers, including Verizon, AT&T, Sprint, Clearwire, cable companies, and regional providers are making billions of dollars of additional investments today to roll out fourth generation (4G) technologies that will further increase broadband competition. For example, Verizon Wireless

² Comments of Verizon and Verizon Wireless, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 21-30 (Jan. 14, 2010) (“Verizon NPRM Comments”).

³ *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, including Commercial Mobile Services*, Fourteenth Report, WT Docket No. 09-66, FCC 10-81, at 7 (May 20, 2010) (“*Fourteenth Competition Report*”).

will initiate commercial Long Term Evolution (LTE) service in up to 38 markets covering roughly a third of the U.S. population during this year, and expects to provide coverage to its entire 3G footprint by the end of 2013.⁴

This competitive marketplace for wireless broadband services has resulted in extraordinary innovation that has led to a broad array of consumer choices, including in particular for wireless devices and applications that are the focus of the *Further Inquiry*. Consumers can choose from among over 630 devices from 33 different manufacturers, including an array of smartphones such as the Droid, iPhone, Palm Pre, and HTC Evo.⁵ New business models such as application stores have enabled consumers to select from an exploding number of applications that are customized to work with various operating systems and devices. And consumers can choose among a wide range of service models – from more open devices, such as the Android-based Droid devices, that provide access to all lawful content and applications in an unmediated marketplace, to more managed options such as the iPhone with Apple-prescreened applications, to more limited devices such as the Amazon Kindle that provide access to particular types of content. Moreover, 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, and 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.

⁴ See “VZ - Verizon at CTIA Enterprise & Applications Conference: Lowell McAdam Keynote Address,” *Thomson StreetEvents*, Oct. 6, 2010, p. 3.

⁵ Ex Parte Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA, to Marlene Dortch, Secretary, FCC, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 2 (Feb. 5, 2010).

In the case of so-call “managed” or “specialized” services, innovative new services or service offerings are now emerging as providers continue to make massive investments in broadband networks and infrastructure that enable these innovative new services. In addition to the investments in wireless networks, according to the Commission, wireline broadband providers made about \$48 billion in capital expenditures in 2008 and another \$40 billion in 2009, with broadband-specific investments of at least \$20 billion in 2008 and \$18 billion in 2009.⁶ Verizon is investing more than \$23 billion to pass more than 18 million premises with its next-generation, all-fiber FiOS network, and has already passed more than 15.9 million of those premises as of the end of June 2010.⁷ Other companies also are deploying fiber-based broadband services to millions of households, and each of the major cable operators is upgrading its network to DOCSIS 3.0 technology, with analysts expecting the technology to be available to approximately 99% of U.S. homes passed by cable by 2013. As a result, the Commission’s High-Speed Internet Services Report indicates that, at a minimum, 87.1% of all census tracts have both a cable modem and ADSL provider. And these services provide increasing speeds. Verizon’s fiber network today offers Internet download speeds of up to 50 Mbps and upload speeds of up to 25 Mbps, with much faster speeds possible when consumer demand warrants them. The speed of DSL offerings likewise has increased, with download speeds of up to 24

⁶ See *Connecting America: The National Broadband Plan*, <http://download.broadband.gov/plan/national-broadband-plan.pdf>, at 38 (2010) (“*National Broadband Plan*”).

⁷ Verizon Investor Quarterly, First Quarter 2010, <http://investor.verizon.com/financial/quarterly/vz/1Q2010/1Q10Bulletin.pdf?t=634146369673541108>, at 8 (April 22, 2010).

Mbps now available in some areas.⁸ Cable modem services using DOCSIS 3.0 typically offer maximum download speeds of up to 20 Mbps.

The investment in networks has been accompanied by the introduction of innovative and differentiated service offerings. Verizon alone, for example, offers, the Verizon FiOS TV service, Verizon Wireless VCast Mobile TV service, and a plethora of enterprise broadband services (such as private IP services). These offerings often integrate content or features from the Internet or connect directly or through a proxy with the Internet. For example, FiOS TV already includes “Widgets” that allow access to certain Internet content on subscribers’ television sets. Application stores and other storefronts offer consumers a wide array of additional offerings. And these differentiated services are clearly at a nascent stage. New offerings such as home medical monitoring, SmartGrid services, and numerous others are just emerging, and others that no one has yet envisioned undoubtedly will be developed. The result – at least absent regulatory restriction – will be an ever-expanding range of service options available to consumers.

Given these competitive and innovative environments for both wireless broadband and managed or specialized services, regulatory constraints are particularly unwarranted. As a general matter, regulatory restrictions on business practices are justified only in clear cases of demonstrated market failure and, even then, only when the benefits of government intervention outweigh the costs.⁹ When those conditions are absent, directing markets is a job best left to

⁸ See Verizon NPRM Comments at Attachment C, Declaration of Michael Topper, “Broadband Competition and Network Neutrality Regulation,” ¶ 10 (“Topper Decl.”).

⁹ See, e.g., Jerry Hausman, *Internet-Related Services: The Results of Asymmetric Regulation*, in *Broadband: Should We Regulate High-Speed Internet Access?* 139 (Robert Crandall & James Alleman, eds., Dec. 2002) (“Regulation should only be used in the situation of market failure”).

consumers in order to maximize long-term consumer welfare. In nascent industries that are undergoing rapid technological change – such as today’s broadband marketplace – it is particularly difficult for even the most capable regulator to keep up with the market’s evolution or to set policies that avoid unintended negative consequences.¹⁰ See Comments of Verizon and Verizon Wireless, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, at Attachment 1, Declaration of Michael L. Katz, ¶ 74 (June 8, 2009)(“Katz NBP Decl.”) (noting the risk of prescriptive regulations given the “complexity of the issues”).

The record contains no evidence of any problem that might justify regulation of wireless broadband or managed or specialized services. Indeed, the concerns noted in the *Further Inquiry* are purely speculative and conditional, and in any event are mostly aimed at freezing in place and shielding from competition existing business models rather than preventing harm to consumers or competition. By definition, “managed” or “specialized” services are intended to provide services in ways that are differentiated from traditional Internet access services, thus creating new and additional choices for consumers. In short, the marketplace is working and leading to greater investment, innovation, and increased consumer choices, with consumer demand driving the development of these services. Regulatory constraints would only impede and restrict the emergence of these new options for consumers and would therefore reduce consumer choice.

In an environment characterized by competition, investment, and innovation, and in which wireless broadband and differentiated services are providing consumers with greater

¹⁰ See Stephen Breyer, *Regulation and Its Reform* 286-87 (1982) (“[B]ecause regulation, once in place, is hard to dismantle, one would like to know whether future technological change is likely to transform an industry that is now a natural monopoly, making it structurally suited to competition.”); Alfred E. Kahn, *The Economics of Regulation* 127 (1971) (“In the presence of such rapid change, the natural monopoly of yesterday may be transformed into a natural arena of competition today; and vice versa.”).

choices, the Commission can best ensure the continued growth and success of all parts of the broadband ecosystem by encouraging providers to experiment and offer a greater range of service options to consumers, while promoting a framework that focuses on enabling consumers to make informed decisions about the services available to them so that those decisions can drive the continued evolution of broadband services and technology. As long as traditional broadband Internet access services remain available as an option for consumers and consumers have the information they need to distinguish between various services and decide which ones best meet their needs, there is no justification for restricting the offering of additional services to consumers – services that consumers may find more attractive for any number of reasons than traditional Internet access services. Promoting transparent and meaningful disclosures to consumers by all providers throughout the Internet ecosystem will enable consumers to make educated choices and thereby facilitate competition and innovation.

To best facilitate this consumer choice framework in an environment where consumers have an increasing array of services to select among, the Commission should encourage the development by providers throughout the Internet ecosystem of best practices, self-regulatory principles, and similar guidelines to promote the quality and usefulness of information available to consumers. As Verizon and Google noted in their joint filing in this proceeding, “[p]roviders throughout the Internet space should give users clear and meaningful information concerning Internet services, applications and content to facilitate informed choices. Transparency could also benefit the Internet more generally, as network operators could improve their services as a result of increased visibility into the demands of new applications, and vice versa.”¹¹ For example, application and content providers should disclose practices that may affect a

¹¹ Comments of Verizon and Google, *Google and Verizon Joint Submission on the Open Internet*, GN Dkt. No. 09-191, WC Docket No. 07-52, at 3 (Jan. 14, 2010).

consumer's use of the Internet. A focus on informed consumer choice also will address all of the concerns identified in the *Further Inquiry* and help deter providers from adopting practices that are anticompetitive and harm consumers. *See Verizon NPRM Comments* at 49. Armed with meaningful information about available services, consumers should be allowed to choose any offerings that may be available from individual providers, rather than have their choices dictated to them by artificial regulatory constraints.

Industry standards already play a meaningful role in providing consumers with information they can use to choose among services. For example, the wireless industry, through its principal trade association CTIA, has voluntarily adopted a Consumer Code for Wireless Service, including broadband services.¹² The CTIA Consumer Code is intended “[t]o provide consumers with information to help them make informed choices when selecting wireless service, and thus to help ensure that consumers understand their wireless service and rate plans, and to continue to provide wireless service that meets consumers’ needs.¹³ Over 30 wireless providers, including Verizon Wireless, AT&T Mobility, Clearwire, Sprint, T-Mobile and U.S. Cellular voluntarily comply with the CTIA Consumer Code. Wireless providers certifying compliance with the CTIA Consumer Code agree to ensure that consumers receive adequate information about their rates, as well as the provider’s terms of service and the extent of its coverage.¹⁴

¹² *See* CTIA, *Consumer Code for Wireless Service*, <http://files.ctia.org/pdf/ConsumerCode.pdf> (“CTIA Consumer Code”).

¹³ *Id.* at 1.

¹⁴ *Id.* at 1, 2. In particular, the CTIA Consumer Code requires participating wireless providers to disclose “material charges and conditions related to the advertised prices, including if applicable and to the extent the advertising medium reasonably allows,” information about activation or initiation fees, monthly access fees or base charges, the contract term, any early termination fee, the times of any peak and off-peak calling periods, whether any additional taxes,

The competitive broadband marketplace also drives service providers such as Verizon Wireless to offer extensive information to consumers about their services.¹⁵ For example, because wireless consumers are interested in where coverage is available, Verizon Wireless provides an online coverage locator tool that allows consumers to view detailed maps showing Verizon Wireless' broadband coverage at the street address level.¹⁶ Improvements in mapping technology and the competitive demands of the market have come together to enhance disclosures in a way that regulation never could. Similarly, because wireless broadband consumers care about the reliability of a provider's service, Verizon Wireless explains its internal network testing, which is the most comprehensive in the industry, and the results of that testing.¹⁷ Verizon Wireless subscribers also have access to information on their data usage in various locations.¹⁸

Even as industry standards and competitive pressures result in robust disclosures, existing federal and state laws protect consumers from false or misleading information. The Federal Trade Commission and state attorney generals institute proceedings to investigate false or misleading advertising within the areas of their respective authority. The competitive nature of

fees or surcharges apply, and any such fees or surcharges collected and retained by the provider. *Id.* at 2.

¹⁵ As the Commission has concluded, "competition is the most effective means of ensuring that the charges, practices, classifications, and regulations . . . are just and reasonable." *Petition of US West Communications, Inc. for a Declaratory Ruling Regarding the Provision of National Directory Assistance; Petition for US West Communications, Inc. for Forbearance; Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Memorandum Opinion and Order, 14 FCC Rcd 16252, ¶ 31 (1999).

¹⁶ www.verizonwireless.com/coveragelocator. Verizon Wireless' provision of coverage maps is consistent with the CTIA Consumer Code which requires providers to "[m]ake available maps showing where service is generally available." See CTIA Consumer Code at 1.

¹⁷ See http://aboutus.vzw.com/bestnetwork/network_facts.html.

¹⁸ See Comments of Verizon Wireless, *Comment Sought on Measures Designed to Assist U.S. Wireless Consumers to Avoid "Bill Shock,"* CG Dkt. No. 09-158 (July 6, 2010).

the broadband marketplace also prompts providers to police one another's advertising to ensure that it is not false, misleading or likely to deceive. When providers are unable to informally resolve disputes over each others' advertising, they can file a complaint with the National Advertising Division of the Council of Better Business Bureaus, a self-regulatory body that helps parties resolve advertising disputes, or seek recourse in federal or state court. In short, federal and state protections already exist to ensure the consumers receive sufficient and accurate disclosures of wireless broadband service terms and conditions.

As a result, there is no need for the Commission to adopt prescriptive consumer disclosure rules at this time. Consistent with the Internet's successful history of self-governance, the Commission should encourage the development by all providers throughout the Internet ecosystem of best practices, self-regulatory principles, and similar guidelines to promote the dissemination of accurate and relevant information in plain language to consumers, so that consumers can then select the services that best meet their needs.

III. THE WIRELESS BROADBAND MARKETPLACE IS UNIQUE AND COMPETITIVE, AND THERE IS NO NEED FOR REGULATION.

The records in this proceeding and the Commission's broadband reclassification inquiry demonstrate that the Commission's stated goal for wireless broadband – promoting innovation, private investment, competition and freedom of expression – is already being achieved. And just as that is true for wireless broadband generally, it is equally true of the device and application sectors that are the focus of the *Further Inquiry*. Moreover, the 4G broadband services that now are in their earliest stages will supercharge these developments and greatly expand the capabilities and usefulness of wireless broadband and open up still further exciting possibilities for wireless devices and applications.

Particularly given the unique competitive, technical, and operational circumstances of the wireless broadband marketplace, heavy-handed regulation is unnecessary in this context and would threaten the rampant innovation and investment that are creating more and better choices in wireless broadband services, applications and devices. Rather than taking that counter-productive step, the Commission should continue to allow informed consumer choice and market forces to drive the development of wireless broadband.

A. Wireless Broadband Is Characterized by Intense Competition and Robust Innovation and Faces Unique Technical and Operational Challenges.

Wireless broadband is unique. This is true both because of the intense competitiveness and increasing openness of wireless broadband services and because of the technical and operational challenges faced by wireless services, including the shared nature of finite spectrum resources and the challenges related to mobility.¹⁹ Moreover, wireless broadband is on the cusp of a revolutionary shift, as providers move to 4G networks and services that will greatly expand the capabilities available to consumers, but that are subject to the technical and operational challenges inherent in wireless networks. While the case for intrusive regulation of *any* broadband services has not been made, these attributes explain why such regulation would be particularly harmful and unwarranted in the wireless context. Instead, the better approach is to promote an environment of informed consumer choices, so that consumers can drive the continuing development of services that meet their needs rather than having their available choices dictated by government regulation.

As an initial matter, neither the Commission nor anyone else has identified a single problem in the provision of wireless broadband Internet access services that could justify

¹⁹ Verizon NPRM Comments, at 58-65; Reply Comments of Verizon and Verizon Wireless Comments, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 45-59 (April 26, 2010) (“Verizon NPRM Reply Comments”).

application of the proposed rules to wireless. To the contrary, all evidence points to the intense and growing competitiveness and openness in all parts of this marketplace, including wireless services, devices, and applications. These successes should come as no surprise, given the intense competition among wireless providers and massive levels of investment and innovation in wireless networks, services, devices and applications. 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, increasing capabilities, and the proliferation of innovative choices for consumers.

Moreover, competition will only increase with the massive investments carriers are making in 4G networks, which will bring greater speeds and capabilities. Private investment is at an all time high for wireless broadband networks.²⁰ Most consumers already have access to 3G services from multiple providers, including the four nationwide carriers and often large or small regional facilities-based providers. In addition, consumers are beginning to gain access to new 4G networks that will provide the capacity and capabilities needed to provide a much wider range of services. For example, Verizon Wireless will offer its 4G service – with expected, typical speeds of 5-12 Mbps downstream – to more than 110 million consumers by the end of this year in 38 major metropolitan areas and at 60 commercial airports coast-to-coast. Consumers are also gaining new choices in service options, as providers seek to differentiate themselves and

²⁰ See Verizon NPRM Comments at 21-29; Comments of Verizon Wireless, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, including Commercial Mobile Services*, WT Docket No. 10-133, at 66-72 (July 30, 2010) (“Verizon 2010 Competition Comments”); Comments of CTIA—The Wireless Association, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, including Commercial Mobile Services*, WT Docket No. 10-133, at 6-15 (July 30, 2010) (“CTIA 2010 Competition Comments”).

attract customers in this competitive environment. For example, the *Further Inquiry* notes that AT&T has now moved to a usage-based pricing approach – an approach that consumers may find attractive because it more closely aligns bandwidth usage with service charges. Other providers are experimenting with a variety of other prepaid and postpaid service plans with varying pricing options.²¹ While this experimentation and increasing variety is taking place – thus increasing the choices available to consumers and making it more likely that a consumer will find a plan that best fits his or her particular preferences – customer satisfaction is high and growing for wireless services.²²

Likewise, innovation is thriving in wireless application stores and in the development of new, high-tech smartphones that allow mobile users to access the Internet content and services of their choice.²³ Wireless applications and “app stores” have gone from nonexistent a few years ago to robust today, and the quick pace of innovation in this area is showing no signs of flagging. App stores run both by wireless providers (*e.g.*, Verizon Wireless, AT&T) and others (*e.g.*, Apple, Google, Blackberry) and featuring a variety of experiences (some more managed, others more open) now offer consumers hundreds of thousands of competing applications that they can

²¹ See Verizon NPRM Comments at 21-29; Verizon 2010 Competition Comments at 46-65, 79-80; CTIA 2010 Competition Comments at 36-49.

²² Last year, the Government Accountability Office reported to Congress that 84 percent of adult wireless phone users are very or somewhat satisfied with their wireless service. See U.S. Government Accountability Office, Testimony before the Committee on Commerce, Science, and Transportation, U.S. Senate, *Preliminary Observations about Consumer Satisfaction and Problems with Wireless Phone Service and FCC’s Efforts to Assist Consumers with Complaints*, Highlights, <http://www.gao.gov/new.items/d09800t.pdf>, at 4 (June 17, 2009). Similarly, the American Customer Satisfaction Index recently found that wireless customer satisfaction is at an all time high for the second year in a row. See American Customer Satisfaction Index, Scores by Industry, Wireless Telephone Services, http://www.theacsi.org/index.php?option=com_content&task=view&id=147&Itemid=155&i=Wireless+Telephone+Service (last visited October 11, 2010).

²³ See Verizon NPRM Comments at 21-29; Verizon 2010 Competition Comments at 96-122; CTIA 2010 Competition Comments at 20-32.

download and use on their wireless devices. The capabilities of 4G will create many new possibilities in this hotbed of innovation.

With devices too, new choices and innovations now come to market on an almost daily basis. Just in the last few months, Verizon Wireless and other providers have introduced dozens of new choices in increasingly sophisticated devices. By way of example, this summer Verizon Wireless introduced the Droid Incredible, Droid X, Droid 2, and even Droid R2-D2 (in addition to numerous other broadband devices); Sprint introduced the HTC Evo using its WiMAX network; and AT&T supports the Apple iPhone 4 and iPad. In addition to these sophisticated, multipurpose devices, many consumers have shown strong demand for more limited single purpose wireless devices such as the Amazon Kindle.

Further fueling this competition and innovation – and undermining any need for regulation – is the strong momentum in the wireless context toward greater openness. Indeed, Verizon Wireless has helped to spur this directional shift through such efforts as its Open Development program, which allows users to attach any wireless device that meets Verizon’s published technical standards and to use any application on that device; and 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.²⁴ Similarly, Verizon Wireless’ support for the open Android platform on several of its devices stokes innovation throughout the wireless ecosystem. Other providers have followed suit and also increasingly fostered third-party innovation in devices and applications that can be used on their networks.

²⁴ See Jessica E. Vascellaro & Niraj Sheth, *Google Opens New Front in Smart Phone Battle*, Wall Street Journal, Jan. 6, 2010.

The result of this competition and increasing openness is exactly the type of environment that the Commission should want – a highly competitive and dynamic marketplace characterized by constant innovation and investment that is leading to an ever-expanding array of consumer choices. 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. 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. *See Verizon NPRM Comments at Attachment B, Declaration of Michael L. Katz, ¶¶ 31-39 (“Katz NPRM Decl.”)*. It surely cannot be the case that consumers would benefit if the market became more homogenized and they had *fewer* choices in services, devices, or applications.

The unique technical and operational characteristics of these services further undermine any rationale for applying regulation to wireless broadband. As Verizon has explained throughout this proceeding, the challenges of shared access to scarce spectrum resources and mobility create distinct technical and operational obstacles. Rules that restrict experimentation with different business models or network management practices would make it more difficult for providers to address these challenges, and, by doing so, threaten the investment and innovation that offers so much promise towards achieving national broadband goals.

Wireless broadband services must manage spectrum sharing by a dynamically varying number of mobile users at any time. Thus, unlike, for example, wireline 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.²⁵ 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 further compound those inherent in 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.”²⁶ A wireless carrier cannot readily increase capacity once it has exhausted its spectrum capacity. *See* 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 they expect.

²⁵ *See* Verizon NPRM Comments at Attachment E, Joint Declaration of Michael D. Poling and Thomas K. Sawanobori, ¶ 17 (“Network Mgmt. Decl.”).

²⁶ *Fostering Innovation and Investment in the Wireless Communications Market; A National Broadband Plan For Our Future*, Notice of Inquiry, 24 FCC Rcd 11322, ¶ 20 (2009).

These challenges not only complicate the provision of services traditionally considered “mobile,” but also “fixed” wireless services. Going forward, the same network may be used to offer services that are mobile, fixed, or some combination of both, and it would be impractical to manage a common network to different standards depending on the nature of an individual service offering. For example, providers may offer devices that can be plugged into a base station at home to provide “fixed” broadband services over a 4G network, but that the customer can also pick up and carry along for mobile broadband access outside of the home. Moreover, even a “fixed” device that does not leave the home could be affected, or affect, a mobile device that is travelling by and that is sharing the capacity on the same network and from the same cell site. Therefore, the challenges of limited spectrum and mobility will be common to “mobile” and “fixed” services, to the extent such services are distinguishable in that way at all, and all wireless services should be subject to the same standards.

As discussed in more detail in Verizon’s earlier filings in this proceeding, these technical and operational characteristics explain the need for various network management practices to make efficient use of wireless networks, devices, and applications. For example, wireless devices are an integrated part of the network service that carriers provide, and providers generally work closely with device manufacturers to ensure not only that the device works well on the network, but also to ensure that devices comply with technical rules and public interest obligations such as E911 and CALEA. *See* Network Mgmt Decl. ¶¶ 17, 24-25. Likewise, wireless providers have an increased need to address devices or applications that may disproportionately use bandwidth or lock up Media Access Control addresses in a manner that harms other users of the network. Verizon NPRM Comments at 62-64.

As the *Further Inquiry* recognizes, these technical characteristics of wireless networks further demonstrate why new business models and alternative pricing structures— such as usage-based pricing – may play an important role in furthering the efficient use of finite spectrum, while also increasing the range of choices available to consumers. Usage-based pricing could more effectively send signals to consumers and developers that could encourage more efficient use of limited spectrum. Consumers who pay based on usage are more likely to select devices and applications that work efficiently, and that in turn will lead developers to take efficiency into account. As discussed below, however, while it is critical that all providers retain the ability to employ alternative pricing models such as usage-based pricing, this alone cannot eliminate the technological challenges associated with wireless networks and do not replace the need for network management.

Finally, it would make particularly little sense to risk the significant harms from regulatory restrictions 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 and on the go. 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 devices and applications developed for new 4G networks – and what network management practices might be needed – is inherently unknown at this point. For example, it is impossible to predict with any certainty what new applications and services might be developed given the

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 any regulatory restrictions – in addition to being ill-advised – would be especially infeasible at this time.

Given the spectacular success of the wireless marketplace and the absence of *any* evidence of a problem to be solved, extending new regulation to wireless broadband would make no sense and could not be justified. Instead, to foster needed innovation and investment, the Commission should rely on a consumer choice framework – facilitated by transparency in available services, devices, and applications – to drive the continued development of this competitive, dynamic and emerging marketplace.

B. The Commission Should Rely on the Competitive Market for Wireless Devices to Empower Consumer Choice and Should Not Impose an “Any Device” Requirement or Other Interoperability Mandate.

Just like the wireless broadband marketplace more generally, the wireless device sector is dynamic and competitive. Verizon Wireless, CTIA and others have documented the robustly competitive marketplace for wireless devices in the United States.²⁷ New, ever-more-sophisticated devices are coming to market at a dizzying pace, providing consumers with myriad choices to meet their needs. CTIA has noted that U.S. consumers have access to approximately 630 different wireless devices, more devices than are available in any other country in the

²⁷ See Verizon 2010 Competition Comments at 97-109; CTIA 2010 Competition Comments, at 20-25.

world.²⁸ A wide range of manufacturers – including Apple, HTC, Kyocera, LG, Motorola, Nokia, Palm, Research in Motion (or “RIM”), Samsung, Sanyo, and Sony Ericsson²⁹ – are competing aggressively by introducing innovative, new devices to attract customers. Among the hundreds of device options available to American consumers, wireless carriers offer dozens of different smartphones, each with its competing set of capabilities and features. Indeed, one of the hallmarks – and great successes – of the wireless marketplace in the United States is the extreme level of innovation and technical diversity, outpacing the rest of the world. Notably, devices such as Verizon’s Droid devices relying on the Android platform, the iPhone, and the 4G HTC Evo were first available in the United States. American consumers are benefitting from and responding to this innovation and competition. Analysts estimate that within just a year from March 2009 to March 2010, the percentage of U.S. mobile phone owners who have a smartphone nearly doubled from approximately 11 percent to 20 percent.³⁰ Moreover, consistent with the shift towards increased openness discussed above, wireless devices are increasingly available from developers and manufacturers independent of the network operator, Apple’s iPhone being a prime example.

²⁸ See Ex Parte Letter from Christopher Guttman-McCabe, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 09-66 *et al.*, Attachment, at 3 (May 12, 2010).

²⁹ Other manufacturers include Alcatel, ASUS, Axsesstel, BandRich, BenQ, Cal-Comp, Casio, Firefly, HP, Huawei, Jitterbug, Novatel Wireless, Option, Pantech & Curitel, PCD, Sharp, Siemens, Sierra Wireless, Uniden, Waxess USA and ZTE. *Id.*, Attachment, at 3; see also Ex Parte Letter from Christopher Guttman-McCabe, CTIA, to Marlene H. Dortch, Secretary, FCC, *A National Broadband Plan for Our Future*, GN Docket No. 09-51 *et al.*, “Handset Innovation” (Attachment, at 1 (Aug. 14, 2009).

³⁰ Mark Donovan, comScore, *The State of Mobile: US Mobile Media Landscape and Trends*, http://www.comscore.com/Press_Events/Presentations_Whitepapers/2010/The_State_of_Mobile_US_Mobile_Media_Landscape_and_Trends, at 26 (June 8, 2010).

In light of these successes, there is no consumer harm to be addressed and no justification for intruding in a dynamic, functioning marketplace. In particular, adopting an “any device” rule or other technical interoperability mandates in this dynamic marketplace – as some proponents of regulation, like the New America Foundation (NAF), have suggested³¹ – would be a significant step backwards and would undermine innovation among wireless devices, harm consumers, and threaten the public interest.

The Absence of Technical Mandates Encourages Robust Technical Innovation. As an initial matter, policymakers must ask whether an “any device” rule or other interoperability or technical mandates would address any documented harm to consumer welfare. In light of the competition and innovation described above, the answer is a resounding “no.”

The Commission’s decision, decades ago, to pursue a hands-off policy for technical requirements in the wireless context – allowing wireless providers to make their own technology choices and manage the devices that use their networks – played a significant role in encouraging today’s vibrant device marketplace.³² The Commission recognized that competition within the industry would serve consumers better than rigid technical standards. Accordingly, it allowed wireless providers to select their own technology, rejecting the prescriptive Part 68 approach that had been used for wireline telephone networks. The Commission correctly recognized that

³¹ See Comments of New American Foundation, et al., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket No. 07-52, at Appendix A, Andrew Afflerbach and Mathew DeHaven, “Any Device and Any Application on Wireless Networks: A Technical Strategy for Evolution” (Jan. 14, 2010) (“NAF Report”).

³² See *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, Third Memorandum Opinion and Order, 9 FCC Rcd 6908, ¶ 66 (1994) (FCC declined to impose technical standards on nascent PCS because “imposition of a rigid technical framework at this time could stifle the introduction of important new technology”); *Implementation of Sections 3(n) and 332 of the Communications Act—Regulatory Treatment of Mobile Services*, Third Report and Order, 9 FCC Rcd 7988, ¶¶ 165-168 (1994) (declining to adopt standards for wireless interoperability to avoid increased costs to consumers and to promote technological innovation). See generally Topper Decl. at ¶¶ 31-33.

mandating technical standards would stifle innovation by network operators and harm consumers, and that “a greater range of technical and service options in the cellular service is in the public interest.”³³ In other words, reliance on the marketplace was the best way to ensure consumers have access to desired and innovative services. This decision resulted in a proliferation of wireless technical standards, which this and prior Commissions have recognized benefit consumers through increased device innovation and falling device prices.³⁴

More recently, in adopting the open platform rules for the Upper 700 MHz C-Block, the Commission again concluded that the network licensee would select the standards for the network and device operating system.³⁵ It encouraged the C-Block licensees to use open standards, which is, in fact, exactly what Verizon Wireless has done.³⁶ As discussed below, Verizon Wireless has published technical specifications related to its LTE network, created an Open Development program and an LTE innovation incubator, and hosted several LTE developer conferences to encourage innovation. All of these steps are intended to encourage third-party innovation and attract it to Verizon Wireless’ networks.

³³ *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunication Service*, Report and Order, 3 FCC Rcd 7033, ¶ 8 (1988).

³⁴ *See Fourteenth Competition Report* ¶¶ 108-109 (“Competition among mobile wireless providers using incompatible wireless network technologies has other advantages that can benefit consumers, including greater product variety and differentiation of services, more technological competition, and greater price competition.”); *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, Thirteenth Report, 24 FCC Rcd 6185, ¶ 127 (2009); *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, Twelfth Report, 23 FCC Rcd 2241, ¶¶ 125-26 (2008); *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, Eleventh Report, 21 FCC Rcd 10947, ¶¶ 102-03 (2006); *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, Tenth Report, 20 FCC Rcd 15908, ¶¶ 106-07 (2005).

³⁵ *See Service Rules for the 698-746, 747-762, and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15289, ¶ 223 & n.502 (2007).

³⁶ *See id.* ¶ 225.

Consumer and Public Interest Served by Current Approach to Technology. The Commission's approach to wireless technical standards has served an important role in enabling providers to ensure high quality services for consumers, and thus to compete on the quality of their network and services. From a performance perspective, each provider is best situated to determine the technical standards to which a device operating on its network must conform to minimize interference, maximize network performance, and otherwise provide the best possible customer experience.³⁷ These can include standards for quality of service or other factors that enable a network provider to more effectively differentiate itself from competitors, producing a virtuous cycle of demand, investment, competition and innovation.³⁸ For example, Verizon Wireless has a rigorous internal procedure designed to ensure that all devices placed on its network do not harm the network or degrade the experience of other users, do not interfere with adjacent users, and function as intended by delivering high quality service and functionality to customers.³⁹ Adhering to such standards is not inconsistent with increasing openness on wireless networks because providers in today's highly competitive wireless broadband marketplace have strong incentives to expand the array of attractive devices that consumers can use on their networks so as to attract and retain customers.

Moreover, as Verizon has explained in detail in this proceeding,⁴⁰ wireless devices are *part* of the end-to-end wireless network: their operation substantially affects not only the quality

³⁷ See Comments of Verizon Wireless, *Skype Communications S.A.R.L.; Petition to Confirm A Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, RM-11361, at Exhibit C, "Technical Statement in Response to Skype Petition," Declaration of Brian Higgins (Apr. 30, 2007) ("Higgins Decl.") (describing in detail Verizon Wireless' process for ensuring that handsets are compatible with its network and meet FCC specifications).

³⁸ See, e.g., CTIA 2010 Competition Comments at 4-5.

³⁹ See Higgins Decl. at 3-7.

⁴⁰ See Verizon NPRM Comments at 58-65; Verizon NPRM Reply Comments at 45-59.

of an individual subscriber's service but the overall efficiency and quality of the service to other customers as well.⁴¹ Any number of desirable wireless services – including multimedia services, various messaging services, and location-based service – depend on implementation both within network switches and on the device. Similarly, devices like BlackBerrys and the iPhone depend upon tight integration between the hardware, software, and network to enable a high-quality and successful user experience.⁴²

These technical features carry through to the statutory and Commission-imposed responsibilities for wireless licensees, which are built on the basic concept that wireless licensees, as part of their statutory authority, are responsible for all equipment and operations that use the radio spectrum to which they are licensed.⁴³ This responsibility covers the operation of both base and mobile stations, and ensures compliance with Commission regulations designed to avoid harmful interference to other licensees.⁴⁴

⁴¹ See *Wireless Tel. Servs. Antitrust Litigation*, 385 F. Supp. 2d 403, 409 (S.D.N.Y. 2005) (“Because wireless service providers cannot implement more efficient service unless subscribers are using handsets that operate on their respective networks, handsets sold for use in the U.S. wireless services market are developed by manufacturers in collaboration with the wireless service providers.”)

⁴² A wireless voice or data session involves continuous communication between base and mobile stations that is separate and apart from the content of the call. For example, as a wireless customer travels, the handset is constantly using “control channels” to stay in contact with multiple base stations to allow a seamless handoff and allow the customer to continue enjoying uninterrupted wireless service. Accordingly, handheld devices are not severable from the rest of the wireless network.

⁴³ 47 U.S.C. § 301 (“No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio...except under and in accordance with this chapter and with a license in that behalf granted under the provisions of this chapter.”).

⁴⁴ See e.g., 47 C.F.R. § 22.913(a)(2) (establishing an effective radiated power limit of 7 Watts for cellular mobile transmitters); *id.* § 24.232(c) (limiting Broadband PCS mobile/portable stations to “2 watts EIRP” and requiring that “the equipment must employ means to limit the power to the minimum necessary for successful communications”); *id.* § 22.917 (establishing limits on out of band emissions for cellular equipment); *id.* § 24.238 (establishing limits on out of band emissions for Broadband PCS).

Moreover, when faced with an issue related to public safety, law enforcement, service accessibility, or another policy goal tied to wireless service, the Commission historically has placed the onus of compliance on licensees. For example, the Commission requires that providers ensure that 50 percent of all handsets sold meet Hearing Aid Compatibility regulations.⁴⁵ To respond to requests for lawful intercepts from law enforcement authorities (LEAs) under CALEA,⁴⁶ wireless operators contract with software providers to ensure that all of the telecommunications and information services offered to subscribers are CALEA compliant, and can be decoded by LEAs with the wireless provider's assistance.

An integral component of the Commission's efforts to implement wireless E911 was a requirement that network operators using a handset-based solution achieve a level of penetration of location-capable handsets among the subscribers to their respective networks.⁴⁷ If consumers could determine which handset to attach to a wireless provider's network, providers would lack the ability to validate the functionality of user-provided equipment or to otherwise block the use of non-compliant devices.

The Commission's long-standing, market-based model for wireless devices has also been incorporated in legislation. For example, wireless alert systems depend on the providers' ability to ensure that handsets are programmed to receive and transmit alerts. In the Warning, Alert and Response Network Act ("WARN Act"),⁴⁸ Congress directed the Commission to work with an

⁴⁵ See 47 C.F.R. § 20.19.

⁴⁶ 47 U.S.C. § 1002(a).

⁴⁷ *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, Third Report and Order, 14 FCC Rcd 17388, ¶¶ 35-54 (1999); 47 C.F.R. § 20.18(g).

⁴⁸ WARN Act, Section 603. The WARN Act was enacted on October 11, 2006, as part of the Security Accountability for Every Port Act, Pub. L. No. 109-347, 120 Stat. 1936-1943 (2006).

advisory committee to develop technical standards that would build into wireless handsets the capability to receive and transmit government-originated alerts to warn subscribers of natural disasters, weather emergencies, and urgent public safety threats. The WARN Act is premised on wireless providers' ability, through the close integration of network and handset, to provide a seamless capability to deliver warnings to customers over their devices using a messaging format.⁴⁹

An "Any Device" Rule or Other Interoperability Mandates Would Harm Consumers and the Public Interest. The proposals of those parties urging an "any device attachment" rule, or other technical interoperability requirements, would directly undermine these important interests and would result in less robust innovation and lower quality service for consumers. For example, mandating interoperability for all devices – even if just all devices using a particular technical standard, such as GSM – would add considerable complexity and cost for consumers. Among other concerns, this approach ignores that spectrum bands available for wireless consumer services have diversified. Since the days of analog cellular, the Commission has auctioned off hundreds of spectrum licenses in various spectrum bands (PCS, AWS, 700 MHz) in differing bandwidths (5 MHz, 6 MHz, 10 MHz, 20 MHz, 22 MHz) to varying groups of licensees. Thus, even deployment of the same technical standard, such as LTE or WiMAX, will not necessarily ensure device interoperability with every network using a particular technology. Nor could the devices be loaded with every possible spectrum combination, without unnecessarily raising the costs and increasing the size of devices to consumers. Likewise, interoperability and third-party certification requirements along the lines of those proposed by

⁴⁹ The Commission has an extensive record in its own proceeding to consider changes to its emergency alert system that establishes how essential the close integration of wireless networks and devices will be to an effective alert system. *See, e.g.*, Ex Parte Letter from Verizon Wireless to FCC, *Review of the Emergency Alert System*, WT Dkt. No. 04-296 (Aug. 10, 2006).

NAF would undermine providers' ability to serve their consumer interests by ensuring high-quality performance of wireless devices on their networks.

The "any device" approach would also lead to consumer confusion and frustration when devices fail to function properly. For example, in the regime favored by NAF, wireless providers would no longer be responsible for handling customer service concerns for "[p]roblems with hardware failure, operating system, and device applications." NAF Report at 38-39. So, wireless providers, who handle millions of calls a day regarding hardware failure, operating systems, and device applications, would have a less visible and helpful role in consumer relations related to wireless services. Instead, consumers would need to get used to successive calls to device manufacturers, providers, and application developers to determine who has responsibility for a specific failure related to their service, rather than today's one-stop call to the provider customer service. NAF blithely suggests that consumers "will adjust" to this model and "recognize" it as the desktop computer model. NAF Report at 38-39. But a consumer's relationship with his or her wireless device is completely different than with a desktop PC. When a wireless device does not work, the consumer feels cut off from the world. With 84 percent wireless consumer satisfaction documented for today's wireless industry, there is little reason to subject consumers to an unknown and potentially harmful device regime.

Such proposals would also undermine the public interest obligations, including device-level implementation of regulatory programs and the current system of provider accountability, furthered by the existing framework. For example, in the CALEA context, enforcing an "any device attachment" rule would enable communications protected by software in an uncontrolled

environment for which providers cannot ensure access to decryption services for LEAs.⁵⁰ Similarly concerns would exist in the 911 context. While NAF gives passing reference to the need to implement 911 capabilities on independently developed and certified devices and posits that wireless providers would still be responsible for E911 (assuming the devices were certified by the Commission or a third-party entity), it concludes that providers would be absolved of responsibility for E911 call failures.⁵¹ It would be cold comfort for consumers for the Commission to sacrifice emergency response capabilities for some form of “any device” mandate that has, in fact, been rejected by prior Commissions as not serving the public interest.

Proposals to require “third party certification” are also unwarranted. As noted above, there is no current impediment to developers getting their devices on wireless broadband networks, subject to reasonable steps taken by providers to ensure the security of their networks and quality of their consumers’ services. Indeed, Verizon Wireless encourages third parties to develop innovative devices that can run on its networks, and it has established processes that work to certify those devices in an efficient manner. Other wireless providers have similar programs in place.⁵² Under these circumstances, rather than interfere with processes that are working to solve a problem that does not exist, the Commission should continue to leave it to providers to decide whether to handle device certification themselves or to employ third parties.

Existing Open Development Approaches Already Promote Third Party Development.

Given that the existing diversity among wireless device standards has proven beneficial to

⁵⁰ 47 U.S.C. § 1002(b)(3) (“*Encryption* -- A telecommunications carrier shall not be responsible for any decrypting, or ensuring the government’s ability to decrypt, any communication encrypted by a subscriber or customer, unless the encryption was provided by the carrier and the carrier possesses the information necessary to decrypt the communication.”).

⁵¹ NAF Report at 38 (“The carrier will not be liable for E-911 problems caused by device-related failures or incompatibility.”)

⁵² See CTIA 2010 Competition Comments at 31-32.

consumers, and the inherent difficulties in achieving interoperability, the Commission should reject proposals for new technical interoperability mandates or third-party certification requirements. In any event, such a drastic intrusion into a well-functioning marketplace could not be justified, given existing avenues, such as Verizon’s Open Development program, that allow third parties to develop new devices and have them run on providers’ networks. This increasing movement toward openness of wireless platforms, including device operating systems,⁵³ will increase consumer choice without mandating technical interoperability or sacrificing the numerous consumer and public benefits of the current approach.

C. The Wireless Application Sector Likewise Is a Model of Innovation and Competition, With No Signs of a Problem Warranting Regulation.

The wireless application marketplace – a sector that hardly existed until a few short years ago – is likewise thriving with innovation and competition. Consumers have the choice of hundreds of thousands of applications designed for various operating systems and devices and addressing almost any conceivable purpose. These applications are created by developers of all types, including the active and competitive community of independent application developers. They are sold through all sorts of vendors, including network access providers (Verizon Wireless, Sprint, AT&T), large content providers (Google, Apple), device manufacturers (BlackBerry, Apple, Motorola, Nokia, Palm), and on-line “app stores” (Handango, GetJar).⁵⁴ This vibrant marketplace has grown up without regulation, and there remains *no* demonstrated need for the Commission or other policymakers to intervene in this burgeoning marketplace.

Notwithstanding the healthy and dynamic nature of the application sector, the *Further Inquiry* asks about the need for restrictions on wireless broadband providers, both when acting in

⁵³ See *id.* at 25-28.

⁵⁴ See Verizon NPRM Comments at 26-27; Verizon 2010 Competition Comments at 109-119.

their capacity as network operators and when hosting their own app stores or offering their own applications. In both contexts, given the lack of any showing whatsoever of a problem to be addressed and in light of the readily observable competition and innovation throughout this sector, new regulatory restrictions would be inappropriate and unlawful. In the unlikely event that problems were to develop in this vibrant sector, existing federal and state competition and consumer protection laws could address bad actors without the intrusion of ex ante regulation in a well-functioning marketplace.⁵⁵

Wireless Broadband Providers Need Flexibility to Manage Networks Efficiently. As Verizon has explained in detail in previous filings in this docket, *all* broadband providers need to engage in network management to provide the quality services that consumers demand. *See* Verizon NPRM Comments at 81-84. Indeed, 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

⁵⁵ State AGs and consumers enforce such laws against mobile content providers. For example, Verizon Wireless and AT&T Mobility entered into an AVC with the Florida Attorney General establishing consumer-friendly marketing, advertising, and business practices intended to provide a significant amount of specific information as to mobile content. *In re Verizon Wireless Servs. LLC & Alltel Communications, LLC, Assurance of Voluntary Compliance*, Case Nos. 08-3-1034, -1035 (June 16, 2009). An Illinois-based class action lawsuit was recently settled regarding allegations of unauthorized billings for mobile content by mobile content providers. *See Williams et al. v. Motricity, Inc. et al.*, Case No. 2009 CH 19089 (Cir. Ct. Cook Cty. Ill.), available at www.cellcontentsettlement.com/. The Mobile Marketing Association has adopted Consumer Best Practices Guidelines that, among other things, provide guidance as to the advertising and promotion of mobile content, including requirements that advertising be clear and conspicuous as to terms and conditions associated with offers. *See* Mobile Marketing Association, *U.S. Consumer Best Practices Guidelines for Cross-Carrier Mobile Content Programs*, <http://www.mmaglobal.com/bestpractices.pdf> (June 2010).

applications such as telemedicine. *See* Network Mgmt. Decl. ¶¶ 8-23. Moreover, given the technical and operational issues discussed 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.

Against this backdrop, the *Further Inquiry* seeks comment on whether wireless operators should be subject to any regulatory restrictions in their handling of applications, including bandwidth-intensive applications.⁵⁶ Providers' need for flexibility in choosing network management practices that best serve their consumers is no less in the context of management of applications, and any restrictions on such practices are likely to have unintended consequences and threaten the quality of consumers' services. Each wireless broadband network is different, and various applications may impact those networks differently, requiring the use of differing forms of network management. Defining a one-size-fits-all approach to "reasonable network management" for all broadband networks is impossible and undesirable.⁵⁷ Instead, the better approach is to rely on informed consumer choice – facilitated by transparency concerning the attributes of available services (including with respect to a provider's choice of network management practices).

This need for flexibility is particularly pronounced in the case of applications that have the potential to degrade other users' services or interfere with other users' access to the shared network resources. Examples could include applications that make intensive use of bandwidth, thus leaving little of the shared resource to other users, or applications that hold onto one or more

⁵⁶ It is not clear what information the Commission seeks in its question regarding protection of the ability of developers to load software applications onto devices for development or prototyping purposes. Such actions could implicate copyrights or permitted use agreements. Verizon Wireless offers a Developer's Community which provides a forum for application developers to work on new applications. *See* www.developer.verizonwireless.com.

⁵⁷ *See* Verizon NPRM Comments at 81-84; Verizon NPRM Reply Comments at 75-81.

of the limited number of MAC addresses allowing access to a cell site, even when the application is not actively being used. As discussed above, wireless networks face the inherent challenge of managing shared use of a scarce resource – spectrum. And accounting for the mobility of users – and the resulting, unpredictable demand patterns – compounds that challenge. Requiring network providers to turn a blind eye to any applications that can further complicate this challenge and potentially disrupt or interfere with other consumers’ services would be a mistake. Such a restriction would be particularly ill-advised, given the inherent uncertainty concerning the applications that could come along in the future and their effect on wireless networks and the services of competing users.

As the Commission recognizes, usage-based pricing could turn out to be one useful tool in addressing these concerns, but it would not eliminate the need for network management. Usage-based pricing could contribute to more efficient use of spectrum by sending correct market signals to both consumers and developers, encouraging consumers to adopt and developers to create applications that make efficient use of spectrum. Consumers who pay by the bit will place more value on bandwidth efficient applications because there would be a cost to them for increased bandwidth consumption. For example, when choosing between competing applications, a consumer would be more likely to choose the one that uses network resources efficiently if he or she has selected a plan that bills based on usage. And developers, in turn, would respond to those consumer choices by designing applications in a manner that takes into account the efficient use of spectrum.

While usage-based pricing – or some variant of it – is likely to be an important tool to address congestion issues, such an approach standing alone should not be seen as a silver bullet. For one thing, only time will tell whether usage-based pricing models will be embraced by

consumers. Experimentation with usage-based pricing for wireless broadband is in its early stages, and consumers currently have choices among plans that employ usage-based pricing or other plans involving other business models. Of course, to achieve the efficiency benefits that the Commission envisions as a result of usage-based pricing, consumers will have to be informed that their higher usage will result in correspondingly higher prices and to then bear the costs of their higher usage. Accordingly, it is critical for providers to have flexibility to employ alternative pricing models such as these without regulatory interference, in the form of price regulation or otherwise, that would obscure or distort the market signals that usage-based pricing are intended to create.

In any event, usage-based pricing alone would not eliminate the need for network management. Even if usage-based pricing were prevalent, there could be particular circumstances or applications in which network management may be needed to serve consumers well. For example, if an unforeseeable event suddenly led to a spike in usage at a particular cell site, it could well make sense under some circumstances for a provider to limit the capacity taken up by any individual applications in order to allow more consumers to make use of the limited network resource. Moreover, usage-based pricing would do little to address other issues, such as applications that may interfere with service to others by locking up MAC addresses even when not in use, thus making it more difficult for other users to gain access to a cell site.

The Commission also seeks comment on whether a network operator should have less discretion, presumably with respect to network management, in managing applications that

“compete” with those services that the operator offers.⁵⁸ This question is based on the faulty premise that a branded application and third-party application have the same potential to impact the network. As Verizon Wireless has pointed out previously, branded applications are developed for consumers in a format and delivered in a manner optimized for efficient use of the network.⁵⁹ A competing, non-branded application may not have undergone the same optimization process. Therefore, if all network conditions are otherwise neutral, it is likely the effect on congestion and other users’ services generally is greater in the case of non-branded, applications. Taking away the operator’s flexibility to engage in network management practices or to take other approaches to address such effects from an application, simply because it could be said to “compete” with the provider’s own application, would make it more difficult for a provider to effectively serve its customers. Indeed, such an approach could discriminate *against* the provider’s own applications, for which the provider has engaged in efforts to mitigate or eliminate associated congestion or harms.

Moreover, the Commission should not extend the benefit of any requirements to deficient applications that fail to comply with legal requirements that apply to other providers or require network providers to compensate for their shortcomings, even if they compete with the providers’ own products. For example, if Verizon Wireless offers a Voice over Internet Protocol (VoIP) service, it will comply with all applicable E911, CALEA, CPNI and other regulatory requirements related to such service. If a competing VoIP service is available on the Internet that does not comply with these requirements, then the network operator should not be obligated

⁵⁸ One issue that would have to be addressed in this context is what a “competing” service is. Who would decide what is a “competing” application and based on what criteria? This proposal is rife with ambiguity and uncertainty, and would likely result in diminished offerings in app stores.

⁵⁹ Higgins Decl. at 1-8.

to support that service, and/or it should be able to charge that VoIP provider for any services that the network operator provides to fill in those requirements. At the very least, the Commission should clarify that wireless broadband providers need not provide access to competing voice service applications that interfere with the licensee's own regulatory compliance.

Providers' Own App Stores and Applications Provide Additional Choices for Consumers, and Should Not Be Restricted. As noted above, in addition to operating networks that provide wireless access to the Internet, many broadband providers also are actively engaged in the application sector, both by hosting their own "app stores" and by offering their own applications. Providers' ability to do so allows them to fully participate in this innovative segment of the broadband marketplace and to provide additional choices for consumers, alongside the hundreds of thousands of choices available from other app stores and application providers. Here again, there is no indication of *any* problem to be addressed and no basis to restrict broadband providers' ability to innovate and compete in this space.

The Commission asks whether there is any benefit to consumers in regulating the "app stores" offered by network operators. As an initial matter, and as discussed further below, any such steps are legally barred, both because the Commission has *no jurisdiction* to regulate the content within an on-line app store, whether sponsored by a network operator or another content provider, and because any effort to do so would run afoul of the First Amendment.⁶⁰ But equally fundamental is the fact that there is no need to go down this path, which would only harm consumers because it would limit their choices. If a network operator wants only to offer a "family friendly" app store, then it should be able to do so. If a customer wants a device that can only access a provider's app store, then the customer should have that choice.

⁶⁰ See *infra* § V.B; see also Verizon NPRM Comments at 111-18; Verizon NPRM Reply Comments at 108-17.

In any event, no on-line app store operator should be required to support access to any and all applications in its store, or be precluded from adopting content standards for the applications it places in its store.⁶¹ Since app stores have become prevalent, there have been repeated reports of applications that are harmful, offensive, or potentially illegal. For example, the infamous “Baby Shaker” was removed from the Apple Store after outrage from parenting and child welfare organizations.⁶² “I am Rich” did nothing more than display a red gem on the iPhone screen, for which customers paid \$999.99 while it was briefly available.⁶³ “Caller ID Faker” allowed users to “spoof” their caller ID and mask their voices.⁶⁴ And “Hottest Girls” contained images of topless women.⁶⁵ Although such applications may appeal to some segments of the public, there is no basis to force broadband providers – or any other online providers that host app stores – to offer such applications through their own app store fronts when they choose not to do so and when most of their customers would appreciate not being exposed to such tasteless applications.

⁶¹ The Communications Act does not permit the Commission to impose a “common carrier” obligation on a wireless broadband network, including the operator’s app store. *See* 47 U.S.C. § 332(c); Comments of Verizon and Verizon Wireless, *Framework for Broadband Internet Service*, GN Dkt. 10-127, at 72-74 (July 15, 2010) (“Verizon NOI Comments”).

⁶² *See* Don Clark, *Cartier to Withdraw Suit Against Apple Over iPhone Applications*, Wall Street Journal (May 23, 2009).

⁶³ *See* Don Frommer, “‘I Am Rich’ Dude: I Made \$6000 from My Dumb iPhone App (AAPL),” The Business Insider, <http://www.businessinsider.com/2008/8/i-am-rich-dude-i-made-6000-from-my-dumb-iphone-app-aapl-> (Aug. 8, 2008) (last visited Oct. 11, 2010).

⁶⁴ *See* <http://www.androidfreeware.mobi/download-caller-id-faker.html>. Caller ID spoofing is the subject of a pending federal legislation to make it illegal to “knowingly transmit misleading or inaccurate caller identification information with the intent to defraud, cause harm, or wrongfully obtain anything of value,” subject to certain exemptions for law enforcement. S 30, Truth in Caller ID Act of 2009; *see also* HR 1258, Truth in Caller ID Act of 2010.

⁶⁵ *See* Ryan Kim, *You, Too, Can Shock, Amuse and Annoy: Some Apps for the iPhone Have No Redeeming Social Value*, Houston Chronicle, at 4 (July 11, 2009).

In addition, requiring an application store provider to host all or particular applications would also raise other practical and legal problems. For example, such a mandate could cause problems for broadband providers under state consumer protection laws. State “cramming” laws may seek to impose liability for *any* content purchased by their customers that appears on the customer’s bill.⁶⁶ Some wireless providers currently allow customers to bill charges for purchases in their app store to their mobile telephone bill, which some may argue makes the provider the entity that “originates” that charge. As long as a provider can establish standards for the content that can be purchased in its own app store, it is more likely to be willing to offer such a service. On the other hand, for a wireless provider to be required to host any content in its app store, including obscene or potentially fraudulent content, *and* risk being subject to refund requirements for that content would be an inequitable and absurd result. The likely result would be that consumers would no longer be offered the convenience of billing app store purchases to their wireless bills, increasing the costs to consumers in dollars and in time.

Accordingly, under no circumstances should the Commission preclude network operators from selecting and applying standards for hosting applications in their app stores. And it should expressly reaffirm that network operators have the ability to offer parental controls, usage controls, and place a block on any device for any application that its consumers request.

⁶⁶ Some states already have, or are considering, cramming laws or other similar laws that arguably could have that effect under some circumstances. *See, e.g.*, Proposed Decision of Commissioner Bohn, “Final Decision Adopting California Telephone Corporation Billing Rules,” Rulemaking 00-02-004, at Proposed Rule 5 (Mailed 9/13/2010) (“The Billing Telephone Corporation is ultimately responsible for refunding all unauthorized charges collected from its subscribers and the fact that the subscriber may have mistakenly paid the unauthorized charges does not diminish the Billing Telephone Corporation’s obligation to refund all unauthorized charges collected through its bill.”); New Mexico Admin. Code 17.11.8.13(C-D) (requiring “originator” of unauthorized charge to refund amounts paid by subscriber and assume costs of refund process).

The *Further Inquiry* also asks whether network operators should have less discretion in managing “native” applications, pre-loaded on their devices. Again, there is no policy or legal basis for the Commission to intervene. These applications benefit consumers by offering them applications that work seamlessly with their device, and that generally are optimized for the particular network and device to ensure a high quality experience. The competitive wireless marketplace will better meet consumer expectations than a regulatory model that attempts to restrict such benefits for consumers to instead lock in place a particular vision of how wireless broadband services “should” work. For example, as noted above, consumers today have a wide range of device choices, including the open, unmediated devices desired by regulatory proponents, but also various forms of more managed devices with limited services or options. The popularity of the latter devices – such as the iPhone or Kindle – demonstrates that consumer demands are not uniform, and many consumers *prefer* such alternatives to the “ideal” model of a blank slate device favored by the proponents of regulation. Instead of rules restricting providers’ ability to meet that consumer demand, the Commission and other policymakers should encourage as many different choices as possible to better meet the variety of preferences and demands that exist in the marketplace.

Skype’s petition seeking to impose new “openness” standards in the form of wireless “Carterfone” rules for devices serves as a cautionary tale.⁶⁷ Skype ultimately abandoned its open model application for Windows Phones, finding that it did not offer users a good “Skype experience,” and to do so, Skype needs to work to implement its software with the mobile

⁶⁷ See *Skype Communications S.A.R.L.; Petition to Confirm A Consumer’s Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, Petition for Rulemaking, RM-11361 (Feb. 20, 2007).

operator partner.⁶⁸ In doing so, Skype effectively conceded the benefits of the market-based model that wireless providers advocated in response to the Skype petition and the downsides of a one-size-fits-all approach to meeting varied consumer demands.⁶⁹ Consumer welfare will not be served by limiting consumer choices and eliminating services that have achieved demonstrable success in the market, precisely because they do meet consumer demand.⁷⁰ It makes no sense to lock in one vision of how wireless broadband should work and foreclose the ability of wireless broadband services to evolve in tandem with consumer preferences.

D. Transparency and Meaningful Disclosures Throughout the Broadband Ecosystem Benefits Consumers and Facilitates Informed Consumer Choice.

The *Further Inquiry* also raises several issues concerning transparency specific to the wireless context. As explained above, *see* Section II, the best way to maximize consumer welfare and to ensure that the broadband ecosystem evolves in a way that best meets consumers' needs is to increase, not restrict, the range of choices available to consumers and to allow their collective, informed choices to direct providers' business models and practices. Transparency from all providers in the Internet ecosystem concerning the features and capabilities of their respective offerings is central to such a consumer choice framework, and the best way to address the issue is by promoting industry standards and best practices rather than through prescriptive regulatory requirements.

⁶⁸ Fierce Mobile Content, "Skype Scraps Windows Phones app," <http://www.fiercemobilecontent.com/story/skype-scraps-windows-phones-app/2010-02-26> (Feb. 26, 2010) (last visited Oct. 11, 2010).

⁶⁹ *See* Opposition of CTIA, *Skype Communications S.A.R.L.; Petition to Confirm A Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, RM-11361 (Apr. 30, 2007).

⁷⁰ *See* Katz NPRM Decl. at 21-25.

The Commission also asks about approaches to transparency for device and application developers, including the disclosure of technical specifications to facilitate third-party devices and applications. As discussed above, unlike the prescriptive Part 68 approach taken for technical disclosures in the wireline telephone world, the Commission traditionally has allowed flexibility in the wireless context and encouraged disclosure without the need for detailed regulation in the wireless sector. Even in the absence of regulatory mandate, information concerning common wireless standards has been readily available to developers. For example, GSM technology is relatively standard and allows a high degree of interoperability among GSM networks. And Verizon Wireless decided several years ago to publish the technical standards for its CDMA network and to invite developers to manufacture devices and applications to work on those devices through its Open Development program.⁷¹ To date, over 150 non-branded devices have been certified through the OD program for use on Verizon Wireless' voice and data CDMA network.⁷² Verizon Wireless also has taken numerous steps to facilitate third-party development of applications and devices for its 4G LTE network. Verizon Wireless chose to build that network using the consensus-based, international standard for LTE technology developed by the Third Generation Partnership Project (3GPP).⁷³ After selecting the open-standards-based LTE, Verizon Wireless published its initial set of technical standards for devices (publicly and to its

⁷¹ <http://opennetwork.verizonwireless.com>.

⁷² See Verizon 2010 Competition Comments at 107.

⁷³ 3GPP is an international standards setting organization, which brings together six standards organizations from Asia, North America and Europe to develop and publish mobile device and network standards, including the U.S.-based The Alliance for Telecommunications Industry Standards (ATIS). See www.3gpp.org. Any member of ATIS or the other 3GPP partners can become a 3GPP member. Full ATIS membership is available to service providers, manufacturers, distributors and developers of communications, entertainment and information technology products and services. Other entities such as trade organizations, academics, and consumer advocacy groups may become ATIS affiliate members and thereby 3GPP members, and so, participate in the 3GPP standards development process.

preferred vendors) on April 17, 2009.⁷⁴ Since that time, Verizon Wireless has issued several supplemental releases over the past 18 months providing additional information concerning technical specifications for its LTE network, and has hosted several conferences and webinars to answer questions and receive comments from the developer community. Verizon Wireless has also posted such information as well as details concerning its certification process on its Open Development web site. Thus, there is no need for additional technical disclosure requirements to enable third parties to develop innovative devices and applications either for Verizon Wireless' networks or more generally.

E. Under No Circumstances Should Providers Be Subject to Multiple, Redundant, and Potentially Conflicting Standards or Be Required to Retrofit Services.

For all the reasons set out above, new regulatory requirements – whether with respect to wireless services, devices or applications – are unnecessary and would undermine the current competition and innovation that typifies all parts of the wireless marketplace. If the Commission nonetheless decides that standards are needed (which it should not), it at a minimum should ensure that providers are subject to a single, common set of standards and that no provider is subject to redundant, and potentially conflicting, standards. Likewise, any such requirements should be limited to the 4G services that will compete most directly with wireline broadband services and that are likely to be the primary focus of third-party device and application developers in the near future, rather than requiring providers to reconfigure and retrofit their existing 3G services for new requirements.⁷⁵

⁷⁴ See <http://opennetwork.verizonwireless.com>.

⁷⁵ In setting rules that apply to the Upper 700 MHz C-Block, the Commission acknowledged the significance of focusing on 4G networks going forward. See 700 MHz Order ¶ 225.

The Commission previously established rules that apply to a subset of wireless broadband services that address the key issues that have been raised by proponents of net neutrality regulation. Specifically, the rules the Commission adopted for the Upper 700 MHz C-Block, 47 C.F.R. § 27.16, already address issues related to the use of devices and applications, disclosure of technical standards and certification process for devices, and no handset locking.⁷⁶

Therefore, if the Commission were to adopt new standards in any of these areas (which it should not), it should either extend the relevant C-Block rules to all providers of 4G wireless service, or if it adopts standards that differ from those rules, it should apply the same standards to all providers and remove the C-Block rules. But under no circumstances should a provider be subject to multiple redundant or differing and potentially conflicting requirements.

IV. ANY RESTRICTIONS ON MANAGED, SPECIALIZED, OR OTHERWISE DIFFERENTIATED SERVICES WOULD UNDULY LIMIT CONSUMER CHOICE AND INNOVATION AND INVESTMENT.

Broadband networks are multi-use networks capable of supporting not only broadband Internet access, but also a variety of differentiated services. The Commission should encourage the availability of such differentiated services – whether called “managed,” “specialized,” or

⁷⁶ Compare NAF Report, at 26, 35 with 47 C.F.R. § 27.16(c) (open technical standards); compare NAF Report, at 33-34 with 47 C.F.R. § 27.16(e) (handset locking prohibited).

otherwise⁷⁷ – because they increase the choices available to consumers and the usefulness of broadband networks for a greater range of purposes, leading to greater broadband investment and adoption. Restrictions that limit providers’ ability to develop and offer such differentiated broadband services, whether along the lines of the “policy approaches” mentioned in the *Further Inquiry* or otherwise, would have the direct effect of denying consumers additional choices that may better meet their particular demands and undermining incentives for broadband providers to invest and innovate.

Any provider that offers consumers the choice of a traditional, best effort broadband Internet access service should be free to offer any other type of service that it chooses, and consumers should be allowed to decide for themselves whether they wish to purchase those services in addition to or instead of a provider’s traditional Internet access offering. And providers throughout the Internet ecosystem should make available to consumers meaningful information about the capabilities of such services in order to facilitate informed consumer choice. By focusing on informed consumer choice – rather than artificial regulatory restrictions that limit differentiation or lock in place particular business or service models – the Commission

⁷⁷ Although the Commission refers to “managed” services or “specialized” services in the *Further Inquiry*, those terms could be read to suggest a relatively narrow class of services. For example, as the Commission notes, “managed” services could be understood to refer to certain types of services commonly sold to enterprise customers. *Further Inquiry* at 2 n.7. Likewise, the *Net Neutrality NPRM* describes “specialized” services in such a way that could suggest narrow, single-purpose services offered over a broadband network, along the lines of dedicated Smart Grid or telemedicine services. *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064, ¶ 148 (2009) (“*Net Neutrality NPRM*”). Rather than using terms that could be read so narrowly, Verizon will use the more generic term “differentiated” service, which refers to all types of services that may be offered in addition to traditional, best-effort wireline broadband Internet access services. Such additional services could be differentiated in any number of ways, including but not limited to, the management of traffic (e.g., prioritization), the scope of the service (e.g., kid-safe Internet services), the particular uses for the services (e.g., dedicated Smart Grid or teleconferencing services), or otherwise.

would maintain the appropriate incentives for continued investment and innovation and better serve consumers' interests.

A. Differentiated Service Will Benefit Consumers By Providing Them With a Broader Array of Choices, While Also Promoting Continued Investment and Innovation.

As Verizon explained in its earlier filings in this and related proceeding, broadband networks can support a variety of services in addition to traditional broadband Internet access. These additional differentiated services can better meet new demands and increase available choices for consumers. Restricting new services or otherwise disadvantaging differentiated services in favor of one-size-fits-all, best-effort Internet access services, on the other hand, would have the opposite effect: decreasing consumer choice, chilling innovation, and making broadband networks less useful.

Notwithstanding the successes of the traditional model for Internet access services, there is no reason to assume that a single approach – one based on 1970s-era technological capabilities, where smarter networks were not an option – will best serve consumers going forward or to restrict differentiated services or new business models that may better serve consumers. As Professor Katz has explained, “[o]ne-size does not fit all.” Katz NBP Decl. ¶ 25. Instead, consumers would benefit by encouraging broadband providers to experiment and innovate with different business models, network management strategies, and differentiated offerings. *Id., passim.*

As in other areas of the economy, consumers' preferences when it comes to broadband services are varied, and consumer welfare is therefore increased when a wider range of services is available to consumers. Some customers may prefer services that provide additional layers of network management or security to shield themselves or their children from certain sites or from online security threats, while some tech-savvy users may prefer a less-managed service without

those protections. Some consumers may see benefits in optimizing their services for certain uses – such as prioritized treatment for online gaming or streaming HD video teleconferencing or a health monitoring service. Other consumers may have a preference for simplified service that provides easy access to a limited set of web sites or applications. *Id.* ¶ 21. There is no reason to foreclose any of those choices and freeze in place a single model for broadband services and chill continued innovation in the capabilities of broadband, particularly so long as consumers continue to have the choice of a traditional, Internet access service and are provided the information that they need to make informed choices among available options.

Encouraging differentiation, innovation, and experimentation becomes all the more important as uses of broadband networks and the Internet continue to expand to encompass more and different services, with varying requirements and limitations. Some services – such as backing up data online – may require lots of capacity, but be less time sensitive or less affected by latency or jitter. Other services – such as VoIP – may not require much bandwidth, but may suffer if network conditions result in substantial latency. Still other services – such as HD video teleconferencing, gaming, or health monitoring services – may require both substantial amounts of capacity and heightened quality-of-service in order to meet consumers’ needs. And as broadband networks become increasingly integral to more sensitive uses – such as real-time heart monitoring or managing smart electrical or traffic grids in real-time – the need for differentiated services capable of meeting the varying demands of different uses becomes all the more crucial. Indeed, most consumers understand that at times of congestion, it makes sense to ensure that these forms of sensitive traffic make it through, even if that delays the download of a video by a few milliseconds.

Restrictions that deny consumers the option of differentiated broadband services would discriminate against, if not foreclose, potential services, applications, or devices that are incompatible with a best-efforts approach, and could undermine innovation that would benefit consumers. Katz NBP Decl. ¶ 47. For example, services that require heightened reliability with low levels of latency or jitter and substantial amounts of bandwidth in order to work well – such as a 3-D telepresence service – may not be feasible in a best-efforts network environment. Likewise, as David Farber explained in this proceeding, “[t]raffic which is latency-sensitive (such as VoIP) can be seriously harmed if it does not receive top priority; traffic which is not latency-sensitive (such as movie downloads) can tolerate short delays without any harm whatsoever.”⁷⁸ Indeed, as a variety of technical experts explain, “prohibiting ISPs from offering performance enhancements for a fee discourages ‘edge’ innovations that could take advantage of those very network performance enhancements.” Farber Decl. at 19.⁷⁹

Similarly, approaches that foreclose or restrict a variety of pricing and business arrangements would also deny consumers benefits. David Clark – one of the pioneers of the Internet – provides a clear example:

we could easily imagine an arrangement in which a content provider pays an access provider to carry traffic to the subscriber without having that traffic count against the usage quota of the subscriber. This arrangement . . . would be a beneficial bargain in many cases for all concerned – providers of high-value, high volume content might be quite prepared to pay a fee to allow the subscriber to

⁷⁸ Comments of AT&T, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at Exhibit 1, Declaration of Gerald R. Faulhaber & David J. Farber at 18 (Jan. 14, 2010) (“Farber Decl.”).

⁷⁹ See also Comments of David Clark, William Lehr, and Steve Bauer, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 9 (Jan. 14, 2010) (“Clark, Lehr & Bauer Comments”) (“Some neutrality arguments seem to imply that a totally neutral platform with a single, best-effort service is best for stimulating innovation, but we believe that providing different service qualities for different sorts of applications is important.”)

receive the information without worries about exceeding a monthly quota. From our point of view, this would be beneficial, rather than unacceptable discrimination.

Clark, Lehr & Bauer Comments at 21-22. *See also* Verizon NPRM Comments at Attachment A, Declaration of Gary S. Becker and Dennis W. Carlton, ¶ 65 (“Becker/Carlton Decl.”)(noting that innovative pricing models, including those that rely on two-sided pricing, could help keep fees low for consumers).

Although the offering to consumers of differentiated services is still in its infancy – thus making any effort to craft hard-and-fast definitions or to create list of “permitted” services infeasible and ill-advised – the potential of such services to benefit consumers and spur additional innovation and competition is manifest. As explained in more detail in Verizon’s comments filed earlier in this proceeding, broadband access providers, including Verizon, have developed, and are continuing to develop, differentiated services and products on their own and in conjunction with partners. Verizon NPRM Comments at 44-49. The Verizon FiOS TV service, Verizon Wireless VCast Mobile TV service, and a plethora of enterprise broadband services (such as private IP services) are some examples already in Verizon’s stable of products. *Id.* at 45. In addition to showing the consumer benefits of differentiated services, these services also demonstrate that the dividing line between “Internet access” and other differentiated 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. For example, FiOS TV already includes “Widgets” that allow access to certain Internet content on subscribers’ television sets, and enterprise customers often devote some capacity on their private IP services for purposes of Internet access traffic. Any attempt to freeze in place particular service models in a way that would inhibit this convergence – such as by defining a fixed category of

permissible services or regulating the allocation among services – would inevitably create distortions that would interfere with the consumer-driven evolution of broadband networks and services.

Broadband providers also have developed differentiated offerings in conjunction with third-party application and content providers, and this collaboration 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. *Id.* at 45-46. Likewise, as noted above, applications that come pre-loaded on wireless devices and that are optimized for the provider's network also benefit consumers and third party developers. *Id.* Broadband providers also facilitate competition and innovation by third parties providing capabilities that help them to better serve customers. For example, Verizon's Partner Port Program 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.* at 46.

In addition to new products and services, consumers also benefit from the ability of broadband providers to experiment with and offer differentiated 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.* at 47. Similarly, 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.

An approach that encourages all of these various forms of differentiation and that relies on informed consumer choice to drive innovation and business models will be the most likely to promote consumer welfare and encourage the evolution of broadband and Internet technology in ways that are useful to consumers and the public. *See* Katz NBP Decl. ¶ 75. The broadband marketplace is still emerging, and consumers' preferences for their services continue to evolve. Thus, it would be unjustified – and contrary to consumers' interests – to freeze in place one particular type of broadband service to the exclusion of all others.

The ability to offer multiple services – including not only voice, video, and traditional broadband Internet access, but also additional, differentiated services not yet available – not only fosters additional competition and more choices for consumers, but also is a fundamental part of the business case for investment in broadband networks. Restrictions that limit potential new services (and the associated revenue) directly undermine the incentives to invest in network infrastructure, thus also undermining the national goals of increased broadband deployment and availability.

Massive ongoing investment will be required to deploy, maintain, and operate advanced, intelligent wireless and wireline networks that will be needed to support and provide the services consumers expect and want, including traditional Internet access services. The Commission and other policymakers need to preserve incentives for continued investment and innovation in all parts of the ecosystem, including networks. 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 Verizon has explained in earlier filings in this proceeding, 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.⁸⁰ 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 addition to undermining broadband investment and deployment, restrictions on differentiated services also would directly undermine the national broadband goal of increased adoption. Although roughly 95% of Americans now have access to broadband networks, roughly one-third still have not chosen to adopt.⁸¹ Surveys repeatedly show a variety of common reasons for accounting for non-adoption, some of which could be addressed by differentiated

⁸⁰ See Verizon NPRM Comments at Attachment D, Declaration of Michael F. Ritter, ¶ 7 (“Products Decl.”).

⁸¹ Pew Internet & American Life Project, “Home Broadband 2010,” <http://pewinternet.org/Reports/2010/Home-Broadband-2010.aspx>, at 11 (Aug. 11, 2010) (last visited Oct. 11, 2010).

services or new business models. For example, nearly one in five non-adopters cite “usability” concerns as the main reason. *Id.* Just as a simplified “Jitterbug” cell phone appeals to some users uncomfortable with technology, an Internet service that simplified the online experience could help to bring such people online. Likewise, 10% of non-adopters suggest that the price of service keeps them from adopting broadband Internet access service. A targeted service that is low-cost or free as a result of being ad-supported or underwritten by one or more online providers in exchange for differentiated treatment could help overcome this obstacle. *Id.* In addition, 48% of non-adopters cite the lack of relevance of broadband services to their lives. This too might change if providers could experiment with other services targeted to particular customer segments that were designed to increase the relevance and usefulness in their daily lives. *Id.* Restrictions on such experimentation, on the other hand, would undermine efforts to promote adoption by limiting these consumers’ choices to the same types of services that they have so far been unwilling or unable to purchase.

B. There Is No Justification for Restrictions on Differentiated Services.

While the Commission has acknowledged the benefits of service differentiation – indeed, the *Further Inquiry* correctly observes that “[t]hese services may drive additional investment in networks and provide consumers new and valued services” – it notes that some parties have raised concern that differentiated services could be offered in a way that would (1) “bypass” any “open Internet protections” applied to traditional wireline broadband Internet access services; (2) “supplant” traditional services, including by diverting capacity to differentiated services that could service as “substitutes” for the open Internet; or (3) harm competition and undermine investment in unaffiliated content, applications, and services. *Id.* at 2. But none of these concerns provides a basis for sweeping regulation of nascent differentiated services.

As an initial matter, because these services are just emerging, each of these concerns is purely theoretical, and there is no evidence of any practices involving differentiation that have harmed consumers or competition in any way. Moreover, the competitive pressures in the broadband marketplace provide strong incentives for providers to continue to offer traditional open Internet access services and not allow them to “wither on the vine” when it is clear that many consumers demand just such services.

As long as a provider continues to make available to consumers the option of choosing traditional broadband Internet access services, each of the hypothesized concerns falls away. For example, a provider would not be “bypassing” open Internet standards by offering differentiated services if it also offered a traditional service subject to those standards. On the contrary, those standards would continue to apply to the traditional service and offering additional differentiated services would merely provide consumers with additional choices. The same is true in the case of the “supplanting” argument. Where traditional Internet access service is available, it has not been “supplanted.” With such an approach, consumers would be empowered to select the services that best meet their needs, and could decide for themselves whether to purchase differentiated services in addition to or in lieu of a provider’s traditional Internet access service. If the consumer decides that an alternative service that provides access to only a subset of sites – such as a kid-friendly broadband service – or that prioritizes selected traffic – such as HD video – better meets her needs than a traditional Internet offering, then there is no reason for the Commission to deny her that choice. It would be counterproductive and would ultimately harm consumers for the Commission to override consumers’ preferences and thereby distort the evolution of the broadband marketplace, simply to give a leg-up to a particular type of service or business model.

The expressed concern that broadband access providers might allocate all (or too much, in the Commission’s view) of their capacity to differentiated services at the expense of Internet access in order to supplant traditional services or “bypass” open Internet standards also is belied by experience and by economic realities. As we have explained previously, a provider that chose to allocate insufficient capacity for traditional public Internet access would quickly find itself losing customers to competitors. Verizon NPRM Comments at 78-79. Indeed, various providers already provide multiple services over their joint use networks, such as Internet access and multi-channel video services, yet experience has shown that those providers have continued to expand the capacity and capabilities of their Internet access services, rather than vice versa as some parties hypothesize. 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, this supposed concern has the reality backward: the ability to offer differentiated services helps create the business case for investing in high-capacity networks that also then enable higher capacity and faster speeds for Internet access.

The concern about potential “anticompetitive conduct” in the offering of differentiated services is also misplaced. Here too, the current, intense level of competition makes such conduct extremely unlikely, particularly in the case of developing services that are mostly still on the drawing board. No provider could have market power with respect to such services – most of which do not even exist yet – and there is no plausible theory that such services could be offered to anticompetitive effect, particularly so long as traditional broadband Internet access services continue to be available to consumers as an alternative. A broadband access provider that is vertically integrated or that partners with third parties does not have an incentive to discriminate

against competing application or content providers in a manner that harms competition or prevents investment in content, application or service providers. *Further Inquiry* at 3. It does no good for a broadband provider to favor its own affiliated content if the result is that consumers will leave its service altogether for a provider with an alternative platform or provider. *See* Topper Decl. ¶ 146; Katz NPRM 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. *See* Topper Decl. ¶¶ 120, 132; Katz NPRM Decl. ¶ 78.

Moreover, the value of broadband services to most consumers is a function of their ability to access the Internet content they desire. As a result, as Nobel Laureate Gary Becker and Professor Dennis Carlton have explained, discrimination by broadband access providers that limited access to such 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.⁸² *See* 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.

⁸² *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).

C. The Regulatory Proposals Raised in the *Further Inquiry* Would Harm Consumers and Deter Investment and Innovation.

The Commission asks about six general “policy approaches” to address the speculative concerns posited in the *Further Inquiry*. Each of the proposals would harm consumer welfare and broadband investment and innovation if the Commission were to impose prescriptive regulation of the form suggested in the *Further Inquiry*. Further, as explained below in Section IV, these proposals also would be unlawful.

1. The Commission Should Not Use Definitions as a Backdoor Means of Imposing Restrictions on Differentiated Services.

The *Further Inquiry* first asks whether the hypothesized concerns related to differentiated services could be addressed by clearly defining the “broadband Internet access services” to which any open Internet standards apply. *Id.* at 3. To be sure, to the extent that the Commission does adopt new requirements that apply to a provider’s traditional broadband Internet access offering, any such rules should apply only to that offering and not sweep in any other service a provider may offer. And, as Verizon has previously explained, failing to clearly define the scope of any such rules would create harmful uncertainty that would make it more difficult for providers to be sure that they were in compliance while structuring their services, developing new offerings, or managing their networks.

The Commission should not, however, use the definition of any service subject to regulation as a means of regulating services other than a provider’s traditional Internet access offering. For example, it should reject the notion in the *Further Inquiry* that the Commission might adopt a “broad” definition of “broadband Internet access service,” and then apply any open Internet standards to “all forms” of services meeting that definition. Such an approach would inevitably limit the offering of differentiated services and narrow the range of choices available to consumers.

In particular, in order to avoid distorting the marketplace for broadband services and the continued evolution of services, policymakers should not create definitions or restrictions that would limit the ability of differentiated services to use or access Internet content. As noted above, the dividing line between traditional Internet access and differentiated 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. For example, Verizon's FiOS TV includes "Widgets" that access selected Internet content. Such innovations, of course, benefit consumers by offering them even more choices. But if any service that provided access to some content on the Internet were to be subject to all of the openness standards that the Commission is considering for traditional Internet access services, the consumer choices and innovation made possible by differentiated services would ground to a halt. For example, the Commission proposed in the *Net Neutrality NPRM* to define "broadband Internet access service" 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." *Net Neutrality NPRM* Appendix A, § 8.3. But some services that clearly should be deemed differentiated services free from regulation, 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. Likewise, as noted above, services such as the Widgets incorporated into Verizon's FiOS TV service access content from endpoints on the Internet. There is no basis to impose the proposed regulations on these types of services just because they draw in part on specific content or features from the Internet or just happen to involve the use of a public IP address.

Indeed, it is altogether likely that many differentiated services could provide access to some or all of the Internet, but still include capabilities that differentiate them from a provider's traditional, best-effort Internet access offering. Such services might include an Internet service optimized to support HD video or gaming, or a simplified Internet service akin to the Jitterbug product in the cell phone context. The Commission should not define the services subject to any openness standards to encompass these types of differentiated services.

Instead of restricting the continued development and evolution of differentiated services through definitional exercises, policymakers should recognize that any provider that offers a traditional Internet access service consistent with any applicable openness standards should be able to offer any other differentiated services free of such regulation, even if that service uses or accesses the Internet content, applications, services, as long as those services were distinguishable in some way in scope or purpose from traditional broadband Internet access service.

2. The Truth-In-Advertising Proposal Would Deny Consumers Relevant Information About Available Services.

The Commission also asks in the *Further Inquiry* whether broadband providers should be prohibited from marketing differentiated services “as broadband Internet access services or a substitute for such service,” and whether providers should be required to sell broadband Internet access as a stand-alone service. While the *Further Inquiry* labels this approach as “truth-in-advertising,” it is nothing of the kind and should be rejected. Indeed, the Commission should affirmatively encourage all providers to offer differentiated services and to affirmatively promote them to increase the range of choices available to consumers in the marketplace. If those services allow consumers to obtain access to Internet content or could be used by consumers instead of a more traditional offering, rather than trying to suppress those facts, the better

approach would be to encourage all service providers to provide (truthful) information to consumers – through advertising and otherwise – about the services available to them, and the features and capabilities they offer, so that consumers are in a position to make informed choices. That is the best way of maximizing consumer welfare.

Moreover, while the notice uses the phrase “truth in advertising,” the approach described is actually something much different. In fact, the marketing restrictions suggested in the *Further Inquiry* could be just the opposite, by “prohibiting” what broadband providers can tell their customers, even when it is truthful and accurate. These restrictions would go well beyond providing consumers with truthful information and instead would operate to deprive consumers of important and truthful information that could be useful in selecting among available services.

As long as providers do not mislead consumers, there is no sound policy reason for denying them accurate information about the choices that they have in the broadband marketplace.

3. The Commission Should Not Impose a “Non-Exclusivity” Requirement on Differentiated Services.

The *Further Inquiry* asks whether providers that enter into commercial arrangements with affiliates or third parties in connection with the provision of differentiated services (e.g., to provide access to particular content or prioritized transmission) should be required to allow any other third party to enter into similar arrangements on the same terms. *Id.* at 4. They should not. Exclusive arrangements are common throughout the economy and generally have pro-competitive effects. The approach proposed in the *Further Inquiry* would effectively impose common carriage obligations on all differentiated services, notwithstanding the lack of any factual or legal justification to do so.

As an initial matter, the *Further Inquiry* wrongly assumes that exclusive arrangements are generally problematic. In fact, exclusive arrangements are common throughout the economy and are generally employed in ways that benefit competition. In a competitive marketplace where competitors are all free to differentiate their services, exclusivity can be an effective and legitimate tool to differentiate a provider's products or services. This is particularly true in the case of *new* products or services – like differentiated broadband services – that are subject to uncertain consumer demand. A provider subject to non-exclusivity requirements would bear all of the risks associated with new services that fail, but would have to share any upside on successful services with all comers.

In any event, the approach to “non-exclusivity” proposed in the *Further Inquiry* – requiring providers to offer the “same terms” to third parties that it offers to its affiliates or other third parties – would inappropriately apply common carriage requirements on differentiated services, including information services, notwithstanding the absence of a basis for doing so. In fact, the approach as described would go even beyond traditional common carriage by requiring that services be offered on the “same terms” to all parties; even Title II generally only prohibits “unjust or unreasonable” discrimination in the terms of a particular service to similarly situated parties. *See* 47 U.S.C. § 202(a).

As Verizon has explained in detail in this proceeding and the companion Title II reclassification proceeding, such obligations can only be imposed with express statutory authority that is lacking here, and even then only in narrow market circumstances that clearly do not apply in the case of emerging differentiated services.⁸³ At a minimum, the Commission would have to find that a provider has market power in order to impose common carriage. *See*,

⁸³ *See, e.g.*, Verizon NPRM Comments at 93-98; Verizon NOI Comments at 63-66.

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*, Opinion, 12 FCC Rcd 8516, ¶¶ 12-14 (1997).

It would be impossible for the Commission to make such a finding in this context. Differentiated services are at their earliest stages of development, and they will be offered in the context of a broadband marketplace with many competing options, both wireline and wireless. Among other things, a consumer could instead select a provider’s traditional Internet access offering or could choose the services of other competing broadband providers. Under these circumstances, there is no justification for forcing common carriage obligations onto an emerging segment of a competitive marketplace. Doing so would also be unlawful, given that most, if not all, differentiated services are likely to be “information services” under the terms of the Communications Act, in that they would include the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.” 47 U.S.C. § 153(20). The Act further prohibits the Commission from applying common carriage regulation to such services. *See, e.g., Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities; Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798, ¶ 41 (2002) (recognizing that “information services” and common carrier “telecommunications

services” are “mutually exclusive” categories under the Communications Act); 47 U.S.C. § 153(44).

4. The Commission Should Not Limit Differentiated Service Offerings.

The *Further Inquiry* also seeks comments on the approach of limiting broadband providers to “only a limited set of new specialized services, with functionality that cannot be provided via broadband Internet access service.” *Id.* at 4. Such an approach would be profoundly anti-consumer and anti-innovation. Consumers should be free to choose for themselves – and, correspondingly, providers should be free to offer them – what services they want to receive and from whom rather than having their choices dictated to them by regulatory fiat. No justification exists to prevent providers from innovating by limiting the range of services they can offer to consumers.

Particularly at this stage in the development of the broadband marketplace, there is no justification for flash-freezing innovation in broadband services or limiting the choices available to consumers. As explained in detail above, offering consumers a wider range of broadband services will maximize consumer welfare, as consumers are more likely to find services that meet their particular needs and interests. One consumer may primarily be interested in enhanced security, another in ease-of-use, another in protecting her children, and another in super-fast gaming. There is no justification – and the *Further Inquiry* does not suggest one – for restrictions that make these decisions for consumers ahead of time. That is particularly true in this context, where services are just now emerging, and there is no evidence whatsoever of a problem to be addressed. Instead, such a restriction would be nothing more than a naked decision to pick winners and losers and shield a favored business model from competing alternatives. The market distortion that would result from this restriction would mean that certain consumer needs or preferences would go unmet, consumer welfare would be undermined,

and broadband will be less advanced and less useful to consumers than would otherwise be the case.

Likewise, it would be inappropriate to limit differentiated services to those services that “cannot be provided via broadband Internet access services.” Just because a service can be delivered over traditional Internet access service provides does not mean that consumers could not benefit from – and would not prefer – a differentiated arrangement. For example, even though online gaming is certainly possible over a traditional Internet access service, an avid gamer may well prefer another service optimized for that particular use. Similarly, although traditional Internet access services provide access to kid-friendly sites, a parent might prefer a targeted service that permitted access only to such sites. An approach that prohibited these types of alternatives would be akin to the government deciding that vanilla ice cream is really the only flavor that consumers need.

5. Allocating Guaranteed Capacity for Traditional Broadband Internet Access Service, Irrespective of Consumer Demand and Competing Uses, Would Be Inefficient and Unlawful.

Finally, the *Further Inquiry*'s suggestion that traditional broadband Internet access services should be guaranteed some set, or ever expanding, amount of capacity – regardless of consumer demand or the needs of competing services – is equally flawed. Instead, providers should continue to have flexibility to use capacity on the networks that they build in a manner that best serves their consumers' demands. Moreover, the entire notion that particular capacity should be allocated to individual services is based on the flawed premise that capacity is inevitably allocated by the provider in some fixed fashion for each service. In fact, a consumer may be able to choose to use his network connection and capacity for a specialized service one moment and then switch to a traditional internet access service the next using the same connection and capacity.

As an initial matter, for the reasons explained above, the concern that providers will devote insufficient capacity to traditional broadband Internet services after introducing differentiated services is misplaced. A provider that chose to allocate insufficient capacity for traditional public Internet access would lose customers to competitors. Verizon NPRM Comments at 78-79. Providers have incentives to compete on all levels of service and, as such, to ensure high quality, even at the cheapest levels. Indeed, the ability to offer differentiated services helps create the business case for investing in high-capacity networks that also then serve to provide higher capacity and faster speeds for Internet access.

Providers need flexibility to manage their networks in ways that satisfy their consumers' demands. The allocation of capacity between and among services is a complex task best left to network operators who have to respond to consumer demand. Regulatory mandates that divorce these decisions from actual consumer demand inevitably will lead to substantial inefficiencies in the use of network capacity, thus increasing costs and undermining the business case for broadband investment and deployment.

Moreover, at this stage in the development of the broadband marketplace, when no one even knows what differentiated services will emerge and how consumers will respond to those additional choices, any restrictions related to capacity would be inherently arbitrary. The result would be tremendous inefficiencies that would harm the business case for broadband deployment and/or raise costs for consumers to obtain the services they prefer. The better choice is to allow consumers to decide for themselves what services they want and in what relative amounts so that informed consumer choice drives development.

In addition to being bad policy that would harm consumers and distort the evolution of broadband services, the suggested allocation restrictions would be unlawful. As explained in

more detail below, the Commission lacks any authority to tell providers how to allocate capacity on the networks that they build and operate with their shareholders' investments, and the Commission has pointed to no source for such authority.

Instead of interfering with complex decisions concerning the use of network capacity without reference to consumer demand or market and investment realities, the better approach is to rely on informed consumer choice to drive these decisions.

V. THE *FURTHER INQUIRY* SUFFERS FROM NUMEROUS FUNDAMENTAL LEGAL FLAWS.

In addition to being bad policy that will hinder, rather than advance, the cause of informed consumer choice in a vibrant broadband marketplace, the types of measures posited in the *Further Inquiry* suffer from numerous fundamental legal flaws.

A. The Commission Lacks Authority To Impose Regulations of the Type Posited in the *Further Inquiry* on Wireless Broadband and Differentiated Services.

The Commission “literally has no power to act” absent a statutory delegation of authority.⁸⁴ As we have previously explained in this and the parallel Title II proceeding, the Commission lacks authority to impose the types of sweeping prescriptive rules it has proposed with respect to broadband Internet access generally, and with respect to wireless Internet access in particular.⁸⁵ Although we do not repeat that explanation here, those legal defects are all the more pronounced in the case of many of the issues raised in the *Further Inquiry*. Indeed, even

⁸⁴ *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986).

⁸⁵ *See, e.g.*, Verizon NPRM Comments at 98-107; Verizon NPRM Reply Comments at 81-101; Verizon NOI Comments at 72-78; 47 U.S.C. §§ 332(c)(2), § 332(d)(1)-(3); *see also id.* § 153(44).

the Commission makes no effort to identify a source of statutory authority for many of the “policy responses” posited in the notice, nor could it do so.⁸⁶

For example, the Commission is wholly without authority to impose restrictions on broadband providers’ own application stores or other content services. These services inherently involve the capability to acquire, store, process, retrieve or utilize information, and as such are unquestionably information services. Likewise, differentiated services will almost inevitably involve those same types of capabilities and as such will likewise qualify as information services. As Verizon has previously explained, however, the Commission lacks authority to impose sweeping regulation of information services of the kind it has proposed in this proceeding.⁸⁷ Indeed, many of the measures the *Further Inquiry* posits, such as the “non-exclusivity” requirement, would amount to imposing common carriage requirements on these information services. But doing so would be in direct contravention of the Act, which broadly prohibits non-telecommunications services from being subject to common carriage regulations.⁸⁸ The Commission likewise lacks authority to adopt other proposals mentioned in the *Further Inquiry*, including any restriction on what differentiated services a provider may offer and what truthful information it may provide to consumers in advertising.

In addition, with respect to wireless broadband services in particular, section 332 bars the Commission from imposing common carrier regulation. Verizon NOI Comments at 72-74; Verizon NOI Reply Comments at 35-36. In that section, Congress expressly barred applying

⁸⁶ That failure itself is a violation of the APA, which clearly provides that notices of proposed rulemakings “shall include reference to the legal authority under which the rule is proposed.” 5 U.S.C. § 553(b)(2) (emphasis added). Thus, before the Commission could credibly propose to move forward on any possible regulation of differentiated services, it would have to first articulate and provide notice of its theory of legal authority to take such action.

⁸⁷ Verizon NPRM Comments at 72-74; Verizon NPRM Reply Comments at 36-37; 47 U.S.C. § 153(44).

⁸⁸ 47 U.S.C. § 153(44); Verizon NPRM Comments at 63-65.

such regulation to any wireless service that is not a commercial mobile service. 47 U.S.C. §§ 332(c)(2), 332(d)(3). As a result, unless a wireless service is interconnected with the public switched network, it cannot be subject to common carrier regulation. *Id.* §§ 332(d)(1)-(2). As the Commission has previously concluded, wireless broadband Internet access service does not meet this standard because it does not itself provide users with the ability to communicate with all users of the public switched telephone network.⁸⁹ The fact that VoIP or other applications riding over wireless broadband Internet service may provide an interconnected service makes no difference because wireless broadband Internet access “*itself* is not an ‘interconnected service’ as the Commission has defined that term.”⁹⁰ Thus, the plain language of section 332 prohibits the Commission from reclassifying wireless broadband service as a Title II service subject to common carriage regulation. Because many of the proposed “policy approaches” in the *Further Inquiry* (as well as in this proceeding generally) would amount to common carrier regulation, the Commission lacks authority to impose them on wireless broadband services for this independent reason as well.

B. Regulation of Differentiated Services Would Only Exacerbate the Existing, Serious Constitutional Problems with the Commission’s Broadband Proposals.

As Verizon has explained, the sweeping net neutrality rules proposed by the Commission, as well as its proposal to “reclassify” broadband Internet access under Title II, would raise serious constitutional issues and ultimately contravene the First and Fifth Amendments, as well as the non-delegation doctrine. Verizon NPRM Comments at 109-123; Verizon NPRM Reply Comments at 108-118; Verizon NOI Comments at 78-96; Reply Comments of Verizon and

⁸⁹ See *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, ¶¶ 39-45 (2007) (“*Wireless Broadband Order*”).

⁹⁰ *Id.* ¶ 45.

Verizon Wireless, *Framework for Broadband Internet Service*, GN Docket No. 10-127, at 38-44 (Aug. 12, 2010) (“Verizon NOI Reply Comments”). Regulation of differentiated and wireless services along the lines of the approaches discussed in the *Further Inquiry* would only exacerbate these serious constitutional defects.

1. The “Policy Approaches” Raised in the *Further Inquiry* to Address the Speculative “Concerns” with Differentiated Services Would Raise Serious Problems Under the First Amendment.

Broadband networks are a medium through which providers offer a form of speech—Internet and other content services—to customers. Indeed, broadband networks are the modern-day equivalent of the printing press. Verizon NOI Comments at 79-80. As a broadband provider, Verizon thus “engage[s] in and transmit[s] speech, and [it is] entitled to the protection of the speech and press provisions of the First Amendment.”⁹¹ The Commission’s sweeping net neutrality rules proposed in this proceeding would infringe broadband Internet access providers’ speech in a number of respects and are incompatible with the First Amendment. The same is true of the various “policy proposals” discussed in the *Further Inquiry* that would apply to and restrict other types of differentiated services – services that will consist of providers’ protected speech – in response to certain, admittedly speculative “concerns.”

Many if not all of the differentiated services contemplated by the *Further Inquiry* are themselves protected forms of speech, and that the potential “policy responses” to the hypothetical concerns discussed in the *Further Inquiry* would impose direct restraints on that speech. For example, video services are one form of a differentiated service delivered over a broadband network. As the Supreme Court has recognized, providers directly engage in protected speech when they create, select, and provide video programming to their customers. In

⁹¹ *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 635 (1994).

addition to the more traditional programming, these video services now 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 – also constitutes protected speech.⁹² Similarly, storefronts or app stores are increasingly popular differentiated offerings, and providers take great care to manage the look and feel of their stores and exercise substantial discretion over the content and applications (both their own and from third-party partners) that they make available in those stores. These editorial choices are likewise protected by the First Amendment.⁹³

The various “policy approaches” discussed in the *Further Inquiry* directly restrict or regulate these and other forms of protected speech in many different ways. For example, one question raised in the *Further Inquiry* is whether providers should be permitted to offer only a limited and defined set of differentiated services. It is difficult to imagine a blunter or more

⁹² See *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”).

⁹³ See *Turner*, 512 U.S. at 636 (“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.”); see also *Miami Herald Pub. Co. v. Tornillo*, 418 U.S. 241, 258 (1974) (“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.).

direct restraint on speech than a government prohibition or other limitation on the applications that a provider may even offer.⁹⁴

Likewise, any Commission attempt to restrict the content or appearance of a provider's own app store, such as by prohibiting a broadband provider from promoting or featuring certain chosen content in accordance with its own editorial judgment or requiring it to include all applications from others,⁹⁵ would also constitute a direct restraint on speech. The end result of such speech restrictions would be to deter, rather than facilitate, speech: for example, if a provider were required to allow access to *all* content or applications into the provider's storefront or application store, that would be a real deterrent to offering any at all.⁹⁶

Any prescriptive rules governing the "allocation" of available capacity on broadband networks would also create constitutional problems.⁹⁷ Because broadband capacity is not infinite, any government mandate that a provider allocate a certain amount of network capacity to traditional Internet access services would limit the capacity available for the provider's own speech, such as the above-discussed video services, storefronts, and other differentiated services that the provider may choose to offer. Allocation requirements thus would restrict a provider's ability to engage in its own protected speech and impermissibly "diminish the free flow of

⁹⁴ See, e.g., *Hurley*, 515 U.S. at 568-70; *Tornillo*, 418 U.S. at 256-57. Limits on the offering of differentiated services would also be a form of rate regulation that would dramatically curb revenue needed to pay for network investment, thus depressing -- in a way more drastic than general rate regulation -- the ability of providers to extend the reach and capacity of their communication with their chosen audience. Verizon NOI Comments at 87 & n.170 (citing cases), Verizon NOI Reply Comments at 40 & n.56 (same).

⁹⁵ *Further Inquiry* at 5.

⁹⁶ 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.").

⁹⁷ *Further Inquiry* at 4.

information and ideas.”⁹⁸ Any attempt to dictate the amount of capacity set aside for a traditional Internet access that is subject to net neutrality restriction would constitute impermissible forced speech because it deprives network operators of the critical right to exercise editorial control over the type, content, and overall composition of information delivered over that portion of its network.

The flip side of the allocation coin – a government mandate to expand network capacity⁹⁹ – would fare no better. The government can no more require broadband providers to expand their network capacity than it could require a newspaper to buy more printing presses in order to assure “adequate” capacity for all those who wished their content to appear in its pages, or require street corner speakers to build soapboxes for others.¹⁰⁰

Likewise, requiring differentiated services to be offered on a non-exclusive basis and on the same terms to all third parties is equally problematic under the First Amendment. To the extent any such requirement applied to a provider’s own application or content services, it would constitute an impermissible direct restraint on speech. And the extent it applied to some differentiated network offering, it too would constitute forced speech. As previously explained,¹⁰¹ the government cannot, consistent with the First Amendment, grant third parties

⁹⁸ *Turner*, 512 U.S. at 656.

⁹⁹ *Further Inquiry* at 4.

¹⁰⁰ *See United States v. United Foods, Inc.* 533 U.S. 405, 410 (2001) (“Just as the First Amendment may prevent the government from prohibiting speech, the Amendment may prevent the government from compelling individuals to express certain views . . . or from compelling certain individuals to pay subsidies for speech to which they object.”); *Meyer v. Grant*, 486 U.S. 414, 424 (1988) (“The First Amendment protects appellees’ right not only to advocate their cause but also to select what they believe to be the most effective means for so doing.”); *Wooley v. Maynard*, 430 U.S. 705, 714 (1977) (“[T]he right of freedom of thought protected by the First Amendment . . . includes . . . the right to refrain from speaking at all.”).

¹⁰¹ *See Verizon NOI Comments* at 79-89; *Verizon NOI Reply Comments* at 38-40.

indiscriminate rights of access to private speech networks on regulated terms and conditions.¹⁰² But that is precisely what the non-exclusivity proposal contemplates. Indeed, as noted above, that proposal is even more extreme than traditional common carrier regulation because it would apply to information services and require that all would-be speakers, regardless of their particular situation, be allowed to speak over private broadband networks on *identical* terms.

The grossly mislabeled “truth-in-advertising” restriction posited in the *Further Inquiry* would prohibit truthful marketing concerning differentiated services and thus, at a minimum, would trigger the First Amendment’s protections for commercial speech.¹⁰³ As the Supreme Court has explained, “a particular consumer’s interest in the free flow of commercial information . . . may be as keen if not keener by far, than his interest in the day’s most urgent political debate.”¹⁰⁴ Although the government may, in certain circumstances, require accurate, truthful disclosures and advertising about the nature of a provider’s service offerings so that consumers can make informed choices, the *Further Inquiry* contemplates a blanket ban on all truthful “marketing [of] specialized services as broadband Internet access service or as a substitute for such service.”¹⁰⁵ Any such restriction would have the perverse effect of denying consumers useful and accurate information concerning the range of available services in order to encourage

¹⁰² *Further Inquiry* at 4.

¹⁰³ *Id.* at 3.

¹⁰⁴ *Va. Pharmacy Bd. v. Va. Consumer Council*, 425 U.S. 748, 763 (1976); *Rubin v. Coors Brewing Co.*, 514 U.S. 476, 488 (1995) (“[T]he free flow of commercial information is indispensable to the proper allocation of resources in a free enterprise system because it informs the numerous private decisions that drive the system.”).

¹⁰⁵ *Further Inquiry* at 3.

them to stick with a government-preferred service model.¹⁰⁶ The First Amendment would not countenance such a ban because “the free flow of commercial information is indispensable to the proper allocation of resources in a free enterprise system because it informs the numerous private decisions that drive the system.”¹⁰⁷

The approaches discussed in the *Further Inquiry* also implicate the First Amendment rule against speaker-based discrimination. That is, to the extent that the above-described policies would apply only to facilities-based providers and not to non-facilities-based providers or other similarly situated players in the Internet ecosystem, such an approach would infringe on First Amendment rights by making impermissible speaker-based distinctions. *See* Verizon NPRM Comments at 115; Verizon NOI Comments at 85-86; Verizon NOI Reply Comments at 40-41.¹⁰⁸

In any event, in addition to the various direct and indirect restrictions on broadband providers’ protected speech that would flow from the “policy approaches,” the definitional ambiguities that have plagued both this proceeding and the related broadband reclassification inquiry are perpetuated in the *Further Inquiry*. The *Further Inquiry* does nothing to define, with any reasonable level of clarity, a limited set of services to which any new requirements would apply. (*See* Verizon NPRM Comments at 79-80, Verizon NOI Reply Comments at 39). Instead,

¹⁰⁶ *Further Inquiry* at 2 (expressing concern that differentiated services might “supplant” the “open Internet”); *see 44 Liquormart v. Rhode Island*, 517 U.S. 484, 503 (1996) (“The First Amendment directs us to be especially skeptical of regulations that seek to keep people in the dark for what the government perceives to be their own good.”); *see also id.* at 518 (Thomas, J., concurring) (“In cases . . . in which the government's asserted interest is to keep legal users of a product or service ignorant in order to manipulate their choices in the marketplace, . . . such an “interest” is *per se* illegitimate . . .”).

¹⁰⁷ *Rubin v. Coors Brewing Co.*, 514 U.S. 476, 488 (1995).

¹⁰⁸ *See, e.g., United States v. Playboy Entm’t Group, Inc.*, 529 U.S. 803, 812 (2000) (“Laws designed or intended to suppress or restrict the expression of specific speakers contradict basic First Amendment principles.”); *Minneapolis Star & Tribune Co. v. Minn. Comm’r of Revenue*, 460 U.S. 575, 577, 592-93 (1983) (“A tax that . . . targets individual publications within the press, places a heavy burden on the State to justify its action.”).

the *Further Inquiry* asks whether the Commission should further expand the scope of its proposed speech restrictions by broadly defining the services subject to those restrictions so as to include “managed”, “specialized” or otherwise differentiated services in addition to a provider’s traditional Internet access offering.¹⁰⁹ But there is no discernible definition of the differentiated services that the *Further Inquiry* proposes to subject to additional regulation.¹¹⁰ Accordingly, extending any restrictions to differentiated services would both expand the scope of the restrictions and exacerbate the vagueness inherent in the Commission’s original proposal, chilling still more speech and aggravating the constitutional problems.¹¹¹

None of the above-described restrictions on protected speech would survive judicial review. The vast majority of the above-described speech regulations are subject to strict scrutiny.¹¹² And the ban on marketing of differentiated services, at a minimum constitutes

¹⁰⁹ *Further Inquiry* at 2 (stating that specialized services “are substantially similar to, but do not technically meet, the definition of broadband Internet service”); *id.* at 3 (“Specialized services would be those services with a different scope or purpose than broadband Internet access service (*i.e.*, which do not meet the definition of broadband Internet access service.”)).

¹¹⁰ Indeed, given the rapidly-evolving nature of differentiated services and the continued integration of Internet content and features with such services, any attempt to categorize those services would be futile and ill-advised. *See supra* at 50.

¹¹¹ *See Grayned v. City of Rockford*, 408 U.S. 104, 109 (1972); *see also Hoffman Estates v. Flipside, Hoffman Estates, Inc.*, 455 U.S. 489, 499 (1982).

¹¹² With respect to capacity allocations, there is no basis for the application of lesser First Amendment protections under cases such as *Time Warner v. FCC*, 93 F.3d 957 (D.C. Cir. 1996) (upholding requirement that DBS operators set aside 4-7% of channel capacity for non-commercial programming under standard of review for broadcast speech regulation under *Red Lion*). It is well established that regulation of the Internet is subject to strict scrutiny. *See, e.g., Reno v. ACLU*, 521 U.S. 844 (1997) (finding no basis to qualify the level of scrutiny for the Internet).

regulation of commercial speech, and would be subject at least to intermediate scrutiny.¹¹³

Under either standard, the policy prescriptions at issue here would run afoul of the First Amendment. Indeed, there is no evidence of any problem with respect to any of the services at issue that could warrant limitations on speech. And even under intermediate scrutiny, 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.”¹¹⁴ Nor are the policy approaches posited in the notice tailored in a narrow fashion to address any such harm, either real or imagined.

As the record in this proceeding confirms, there is no evidence of any actual problem in traditional broadband Internet services to justify either the proposed net neutrality regulations or reclassification. *See* Verizon NPRM Comments at 117-118; Verizon NPRM Reply Comments at 115; Verizon NOI Comments at 89; Verizon NOI Reply Comments at 41. And in the case of the wireless and differentiated services that are the focus of the *Further Inquiry*, there is *no* evidence *at all* of any anticompetitive conduct or other problem that could justify restricting speech. Indeed, the “concerns” described in the *Further Inquiry* are phrased entirely in conditional and

¹¹³ *Turner*, 512 U.S. at 662 (intermediate scrutiny requires that regulation may only be sustained if “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 greater than is essential to the furtherance of that interest”) (internal quotation marks omitted).

¹¹⁴ *Turner*, 512 U.S. at 664.

future terms.¹¹⁵ This sort of “mere speculation [and] conjecture” is plainly insufficient to satisfy any applicable standard of review under the First Amendment.¹¹⁶

Moreover, the *Further Inquiry*’s chief rationale for the need to regulate differentiated services appears to be that the Commission, if it adopts net neutrality rules, may not be able to correctly and clearly define the boundaries of the broadband Internet services that it intends to regulate under those rules. But that only shows that the Commission should not adopt its unsupported and overbroad proposed rules at all, and that any concerns could be addressed by other, non-speech-restrictive measures. The correct answer, from both a policy and a constitutional standpoint, is to use non-speech-restricting, non-market-crippling measures, such as promoting transparency with respect to all providers that make up the Internet ecosystem and studying the evolution of the still-developing wireless and differentiated services segment of the broadband marketplace.

2. The *Further Inquiry* Raises Serious Problems Under the Fifth Amendment.

The restrictions discussed in the *Further Inquiry* also raise serious problems under the Fifth Amendment’s Takings and Due Process Clauses. With respect to the Takings Clause, network operators have vested property rights in the physical infrastructure of the networks that they own and have spent billions of dollars to build, maintain, and modernize. Regulation of

¹¹⁵ *Further Inquiry* at 2 (“Open Internet protections *may* be weakened if broadband providers offer specialized services that are substantially similar to, but do not technically meet the definition of, broadband Internet access service A similar concern *may* arise *if* specialized services are integrated into broadband Internet access service. . . .); *id.* (“Broadband providers *may* constrict or fail to continue expanding the network capacity allocated to broadband Internet access service in order to provide more capacity for specialized services *If this occurs*, . . . the Open Internet *may wither*”); *id.* at 3 (“Broadband providers may have the ability and incentive to engage in anti-competitive conduct with respect to specialized services. . . .”) (all emphases added).

¹¹⁶ *Edenfield v. Fane*, 507 U.S. 761, 770 (1993).

those networks in ways that force network operators to dedicate their private facilities to the use of others on terms to which the operators would not agree thus raises troubling issues under the Takings Clause.

In particular, the non-exclusivity requirement described in the *Further Inquiry* would violate the Takings Clause for several reasons. As explained above, imposing a non-exclusivity rule on providers of differentiated services would amount to compelled common carrier status (and beyond, given the proposed flat ban on discrimination of any sort) with respect to those services. But non-voluntary common carrier status, whereby a private property owner must by force of law make his property available to the general public, is by definition a taking. *See* Verizon NOI Comments at 90-92. In addition, the grant of third-party rights to transmit information over proprietary networks on regulated terms and conditions would constitute a permanent physical occupation of the network because the transmission of electronic signals over a broadband network is a modern-day physical invasion of private property.¹¹⁷ *See* Verizon NOI Comments at 91-92. Finally, common carrier status for differentiated services would dramatically upset the investment-backed expectations of network owners. As discussed above, the ability to offer differentiated services is an important part of the business case for investment in broadband networks, and providers have spent billions of dollars building their networks on the reasonable assumption that they would be able to offer these services and to do so free from monopoly-style common carriage duties and rate regulation.¹¹⁸ *See id.* at 92-94. And all this would be equally true of any effort to impose some form of capacity allocation requirement,

¹¹⁷ *See Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 430(1982); *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441, 1446 (D.C. Cir. 1994); *see also Nollan v. California Coastal Comm'n*, 483 U.S. 825, 832 (1987).

¹¹⁸ *See Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

which, like the non-exclusivity provision, would involve the dedication of private property for the use of and occupation by others.

The “policy responses” in the *Further Inquiry* would also create substantial issues under the Due Process Clause. As explained, given the definitional ambiguity in all of the Commission’s proposals in this proceeding and in the broadband reclassification inquiry, it is impossible to know where either the boundaries of that proposed regulation lie¹¹⁹ or where the corollary boundaries of the differentiated services that the Commission would subject to additional regulation lie. This absence of any reasonably ascertainable understanding of the scope of the restrictions would violate the fundamental right of regulated entities to fair notice of what the law requires.¹²⁰

3. The *Further Inquiry* Raises Serious Problems under the Non-Delegation Doctrine.

Finally, the *Further Inquiry* raises acute problems under the non-delegation doctrine. As we have previously explained, Congress may not delegate its lawmaking power over a subject to an agency without providing appropriate standards such that the agency can fairly be said to be merely executing Congress’s will. *See* Verizon NOI Comments at 94-96.¹²¹ Here, the *Further Inquiry* has not identified a *single* source of statutory authority—direct, ancillary, or otherwise—that could possibly limit the reach of its effort to regulate these services.

Thus, the *Further Inquiry* fails to recognize any legal limits on its ability to regulate the wireless and differentiated services that are its primary focus, apparently presuming that the Commission can simply act on its “concerns” and implement those “policy responses” that it

¹¹⁹ *See* Verizon NOI Reply Comments at 42-43.

¹²⁰ *See, e.g., Trinity Broad. of Fla., Inc. v. FCC*, 211 F.3d 618, 631 (D.C. Cir. 2000).

¹²¹ *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).

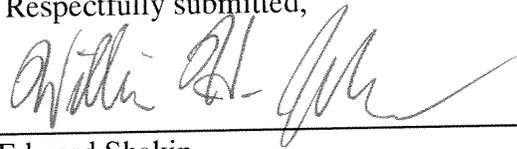
deems desirable. The breathtaking array of potential regulation proposed in the *Further Inquiry*—ranging from advertising bans, to prohibitions on service offerings, to network allocation and capacity mandates—underscores the point. The Commission does not, however, have a “roving commission to go about doing good”¹²² and thus must, at a bare minimum, point to some statutorily-based “limiting principle” that could cabin its discretion in the regulation of differentiated services if it is to avoid a glaring non-delegation problem.

¹²² *Comcast Oral Argument Transcript* at 46 (Sentelle, C.J.).

CONCLUSION

In the case of both wireless broadband services and other differentiated broadband services, the Commission should continue to allow informed consumer choice to drive the continued development of the broadband services, and the Commission should reject any policies that would limit consumer choice or restrict the resulting evolution of broadband.

Respectfully submitted,



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