

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

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

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**COMMENTS OF AT&T INC.**

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## INTRODUCTION AND EXECUTIVE SUMMARY

The two types of broadband services for which the Commission seeks additional input in its supplemental *Notice*<sup>1</sup>—specialized services and mobile wireless services—are critical to achieving the ambitious broadband goals established by Congress and this Administration. Many of the individual services that will be used to meet the Recovery Act’s goals—enhancing “consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth”<sup>2</sup>—will be “specialized” or wireless or, in many cases, both. As the *National Broadband Plan* recognizes, the best way to promote the development of these services is not for the government to “choos[e] a specific path for broadband in America,” but rather “to encourage more private innovation and investment” in broadband while ensuring that “the role of government is and should remain limited.”<sup>3</sup>

That is the path the Commission has taken since the dawn of the broadband era, and it has been a spectacular success. Even amid the worst recession in decades, investment and innovation continue apace. Hardly a week goes by without the release of a new smartphone, eReader, or tablet computer; the announcement of a new telehealth, smart-grid, or other machine-to-machine (“M2M”) initiative; or the formation of a new venture among network operators, equipment manufacturers, application developers, and operating system vendors to

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<sup>1</sup> Public Notice, *Further Inquiry into Two Under-Developed Issues in the Open Internet Proceeding*, DA Docket No. 10-667, GN Docket No. 09-191, WC Docket No. 07-52 (Sept. 1, 2010) (“*Notice*”).

<sup>2</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115, div. B, tit. VI, § 6001(k)(2)(D) (Feb. 17, 2009) (“*Recovery Act*”).

<sup>3</sup> FCC, *Connecting America: The National Broadband Plan* at 5 (2010), <http://download.broadband.gov/plan/national-broadband-plan.pdf> (“*National Broadband Plan*”).

bring new products and services to market. Now is certainly not the time to change course. If these positive trends are to continue, market participants will need a stable regulatory environment that affords them maximum flexibility to develop the innovative business models that will attract capital investment and lead to job-producing economic growth.

Continued private investment in wireless and specialized broadband services will be critical not only to the economy in general, but also to meeting the *National Broadband Plan*'s objectives in particular. *First*, wireless technologies have emerged as the most efficient means of bringing broadband service to many rural and high-cost areas of the country. And investment in mobile wireless broadband will help trigger greater broadband usage among low-income and minority consumers, whose adoption rates have lagged behind those of other populations.<sup>4</sup> As the *National Broadband Plan* recognizes, making more spectrum available to support these mobile broadband offerings should be the Commission's top priority.

*Second*, "specialized" services also play an increasingly indispensable role in empowering consumers and achieving the Recovery Act's social goals.<sup>5</sup> The two such services most visible to consumers today are the IPTV and VoIP services that AT&T and hundreds of other providers offer over the same transmission platforms used for broadband Internet access,

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<sup>4</sup> See Sam Diaz, *Study: Minorities leading in mobile web usage; helping close digital divide*, ZDNet.com, July 8, 2010, <http://www.zdnet.com/blog/btl/study-minorities-leading-in-mobile-web-usage-helping-close-digital-divide/36523>.

<sup>5</sup> Although the *Notice* seeks comments on how "specialized services" should be regulated, the Commission has never defined that term, nor even described the salient attributes of such services. Based on the context in which the Commission has used the term "specialized services," however, AT&T generally understands the Commission to be referring to any services that are delivered over network facilities that also are used for the provision of broadband Internet access services. As discussed below, casting a regulatory cloud over such a wide swath of broadband-enabled services—from mobile telehealth services to IPTV services to wireless dog-tracking collars—is both unnecessary and exceedingly unwise. Instead, the Commission should precisely define the one service it means to regulate—broadband Internet access—while monitoring the development of the numerous and still very nascent "specialized services" entering the market.

bringing previously unimagined competition to the markets for video and voice services. Likewise, eReaders, 3G-connected GPS navigation devices, broadband-enabled picture frames, and countless other consumer-focused products are revolutionizing the way people access information and communicate with one another.

These, however, are just some of the literally thousands of “specialized” broadband services that will revolutionize communications in America and serve key social-policy goals for the 21st century. Smart-grid control modules and utility meters that wirelessly transmit information about electricity usage will increase “energy independence and efficiency.” Recovery Act, § 6001(k)(2)(D). Wireless heart monitors and other devices that allow for remote monitoring of patients’ health, as well as telemedicine technologies that allow doctors to share high-quality video and medical images in real time, will reduce the costs of “health care delivery” and improve the level of care for many patients. *Id.* And the countless other M2M services offered today—such as freight tracking and vehicle telemetry monitoring—are streamlining business operations throughout the economy, promoting “entrepreneurial activity, job creation[,] and economic growth.” *Id.*

In short, specialized and wireless broadband services are delivering, and will continue to deliver, untold benefits to consumers and the economy if the Commission maintains a hospitable regulatory environment for such services. Unfortunately, certain net neutrality advocacy groups do not see it that way. They would have the Commission rein in the growth of these emerging, pro-consumer services to prevent them from purportedly “cannibalizing” the open Internet. As discussed below, these advocates base their regulatory proposals on empty sky-is-falling rhetoric rather than facts. Indeed, their rhetoric is thoroughly refuted by the substantial, real-world *increases* in broadband Internet access capacity on networks that also support specialized

services. And, in all events, these proposals would serve only to undermine broadband innovation, investment, consumer welfare, and the critical policy goals of this Administration.

*Proposals to regulate specialized services.* As AT&T has previously explained, the Commission would throw a wet blanket of investment-chilling regulatory uncertainty on the nascent market for specialized services if, as suggested in the *Notice*, it adopted the proposal of some net neutrality advocates to “[d]efine broadband Internet access service ... broadly,” impose various “neutrality” rules on any such service, and make case-by-case exceptions for certain “specialized services.”<sup>6</sup> That definitional approach would be unworkable, given the unbounded diversity and sheer numbers of such services. Instead, the Commission should include within the definition of “broadband Internet access” only those services that offer open-ended Internet connectivity.<sup>7</sup> This will exclude, at the outset, limited-purpose services that merely use the common *addressing* scheme for Internet Protocol services, but that do not constitute “broadband Internet access services” under any current understanding of that term. This definitional approach also would avoid the long-term regulatory uncertainty that would result if the

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<sup>6</sup> *Notice* at 3; see also Notice of Proposed Rulemaking, *Preserving the Open Internet*, 24 FCC Rcd 13064, 13105-06 ¶ 108 (2009) (“*Open Internet NPRM*”); Comments of AT&T, Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 101-02 (filed Jan. 14, 2010) (“*AT&T Net Neutrality Comments*”).

<sup>7</sup> *AT&T Net Neutrality Comments* at 96-102; Reply Comments of AT&T, Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191 and WC Docket No. 07-52, at 114-20 (filed Apr. 26, 2010) (“*AT&T Net Neutrality Reply Comments*”). See also Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11531 ¶ 63 (1998) (“*Report to Congress*”) (distinguishing application providers who offer “discrete” services from broadband Internet access providers who offer “open-ended Internet connectivity”). Specifically, the Commission “should more narrowly define ‘broadband Internet access service’ to mean a service that offers to the public the capability to transmit data to, and receive data from, all or substantially all endpoints that have a unique IANA-assigned Internet address that is publicly announced and globally reachable (either directly or through a proxy).” *AT&T Net Neutrality Comments* at 99 (internal citations omitted).

communications industry were forced to litigate, service by service, which services are subject to “neutrality” rules.

Some pro-regulation advocates cavalierly dismiss the investment-chilling effect of such profound regulatory uncertainty. But these advocates are oblivious to the real-world effects of their regulatory proposals more generally. That is because they have never run a capital-intensive business, they do not have to account to investors, and they fail utterly to appreciate the business impact of the regulatory overhang their proposals would introduce into the marketplace. They also are evidently unaware of the existence and potential benefits of specialized services. Free Press, for example, tends to discuss “specialized” services only in the abstract, as though they did not exist today and were shadowy future threats to the Internet. It even asserted earlier this year that such services “represent a future, not a present, use of the broadband network,” claiming that “[i]t is unclear if *any* ‘managed or specialized services’ are currently offered to consumers.”<sup>8</sup>

Of course, this statement is misinformed. To take one obvious example, AT&T and hundreds of other broadband providers offer subscription video services to millions of consumers by means of IPTV.<sup>9</sup> But, as we have explained in previous comments,<sup>10</sup> AT&T and many other providers now or will imminently offer many other types of specialized services as well, including:

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<sup>8</sup> Comments of Free Press, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 110 (filed Jan. 14, 2010) (“*Free Press Net Neutrality Comments*”).

<sup>9</sup> See, e.g., National Exchange Carrier Association, *Trends 2009: A report on rural telecom technology*, at 11 (2009), <https://www.neca.org/cms400min/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=2392> (“Two hundred ten companies report IPTV deployment; 57 more companies plan to deploy IPTV in 2010”).

<sup>10</sup> *AT&T Net Neutrality Comments* at 181-82; *AT&T Net Neutrality Reply Comments* at 76-77.

- telemedicine applications that permit videos and high-definition images to be transmitted in real time;
- utility meters and smart-grid devices designed to increase energy efficiency;
- home management systems that enable users to remotely control their thermostats, appliances, security systems, and more;
- remote health monitors that allow patients with serious medical conditions to receive care at home on an outpatient basis rather than stay in the hospital;<sup>11</sup>
- vehicle telemetry sensors and freight-tracking devices which make management of truck fleets more efficient and permit tracking of inventory;<sup>12</sup>
- various network-based VPN services and TelePresence offerings aimed at business customers;
- specialized consumer services integrated with special-purpose devices such as eReaders like the Kindle and Nook, as well as broadband-enabled GPS navigation devices from firms like Garmin and TomTom;
- broadband-enabled vending machines that wirelessly transmit inventory information and report malfunctions; and
- wireless dog collars that track a pet's location and alert users when their dogs stray from designated areas.

Free Press and others also argue that specialized services will somehow convert the best-effort Internet to “the digital equivalent of a winding dirt road” if the packets associated with those services are “prioritized” and share a common transmission platform with broadband

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<sup>11</sup> See, e.g., AT&T, Press Release, *AT&T and eCardio Diagnostics Team Up to Advance Cardiac Care Through Innovative Mobile Technology*, Oct. 7, 2010, <http://www.att.com/gen/pressroom?pid=18633&cdvn=news&newsarticleid=31268&mapcode=enterprise> (“AT&T is providing eCardio with machine-to-machine (M2M) wireless data and mobile connectivity for near real-time, remote monitoring of cardiac patients.”).

<sup>12</sup> AT&T recently announced that it will serve as the communications backbone for Con-way Freight's wireless freight-management operations. Using more than 11,000 hand-held devices supported by dock automation software applications, the system will provide real-time information on shipment pickups and deliveries from Con-way's driver workforce in the field. See AT&T, Press Release, *Con-Way Freight Streamlines North American Transportation Operations with AT&T Mobility and Network Solutions*, Oct. 7, 2010, <http://www.att.com/gen/press-room?pid=18636&cdvn=news&newsarticleid=31271&mapcode=enterprise>.

Internet access services.<sup>13</sup> That concern is as empirically untenable as Free Press’s submission that specialized services do not exist. For both enterprise and residential customers, network engineers have already, for many years, given precedence to IP packets associated with specialized services over best-effort Internet packets, all without “degrading” the best-effort service. For example, broadband providers routinely “prioritize” IPTV-related packets over “Internet”-related packets, and those two traffic streams dynamically share capacity on the same transmission platform. *AT&T Net Neutrality Comments* at 62. The result is unambiguously pro-consumer and pro-Internet, as illustrated by the accolades AT&T has received for both the video *and* Internet-access services in its U-verse portfolio from organizations that, unlike Free Press, have surveyed actual consumers.<sup>14</sup>

As years of experience have shown, such platform sharing and prioritization are not “problems,” but rather the long-sought realization of network efficiencies made possible by broadband convergence.<sup>15</sup> Any effort to curtail those efficiencies through regulation of

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<sup>13</sup> Lawrence Lessig & Robert W. McChesney, *No Tolls on the Internet*, Wash. Post, June 8, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/06/07/AR2006060702108.html>.

<sup>14</sup> See J.D. Power and Associates, Press Release, *AT&T U-verse and Verizon FiOS Rank Highest in Customer Satisfaction with Television Service*, Oct. 16, 2010, <http://businesscenter.jdpower.com/news/pressrelease.aspx?ID=2010166> (discussing results of a study measuring overall customer satisfaction in five areas, including performance and reliability, which indicate that AT&T U-verse ranks highest in three out of four regions for the third consecutive year); Consumer Reports, Press Release, *Fiber-Optic Providers Are Leading Choices for Internet, TV, and Telephone Service*, Jan. 5, 2010, <http://pressroom.consumerreports.org/pressroom/2010/01/fiberoptic-providers-are-leading-choices-for-internet-tv-and-telephone-service.html> (reporting that AT&T received top scores in consumer rankings for its Internet and TV service) (“*Consumer Reports Press Release*”). See also Frost & Sullivan, *2009 North American Consumer Communications Service Product of the Year Award: AT&T*, [http://www.att.com/Common/merger/files/pdf/Frost\\_Sullivan\\_2009\\_Consumer\\_Product\\_of\\_the\\_Year.pdf](http://www.att.com/Common/merger/files/pdf/Frost_Sullivan_2009_Consumer_Product_of_the_Year.pdf).

<sup>15</sup> See *The Great Digital Broadband Migration*, Remarks of Commissioner Michael K. Powell at the Progress and Freedom Foundation (Dec. 8, 2000), <http://www.fcc.gov/Speeches/Powell/2000/spmkp003.html>.

specialized services would harm millions of ordinary consumers. For example, the IPTV services offered by AT&T and other wireline broadband providers supply much-needed video competition to incumbent cable television providers. These IPTV services are complements to, rather than substitutes for, robust Internet access. Indeed, AT&T's U-verse customers receive superior Internet access today precisely *because* AT&T offers bundles of IPTV service (and VoIP service) together with Internet access and provides these services over the same physical platform. The top Internet access speeds that customers enjoy on AT&T's *shared* U-verse platform are several times greater than the speeds attainable on its *unshared* Internet-only DSL platforms. *See AT&T Net Neutrality Comments* at 53. And AT&T has invested billions in the new fiber deployments needed for these faster speeds only because the prospect of IPTV revenues, in addition to broadband Internet access revenues, has made it cost-efficient to do so.

These same basic pro-consumer efficiencies have likewise driven Verizon to invest billions in its triple-play FiOS network and the major cable companies to upgrade their triple-play networks to DOCSIS 3.0. Because of these multi-billion-dollar investments, these providers are now able to offer consumer broadband Internet access service at speeds of 20, 50, and even 100 Mbps. But if the pro-regulation advocates' theories about Internet "dirt roads" and "cannibalization" were correct, U-verse, FiOS, and DOCSIS 3.0 Internet access services *simply would not exist* because their providers would be too concerned about protecting their specialized services from Internet-based competition to offer such high-speed services. Not surprisingly, the pro-regulation advocates—who traffic in rhetoric, not facts—have no explanation for the existence of these real-world, high-speed services.

Those advocates would also succeed only in harming consumers if the Commission adopted their proposals to force broadband providers to segregate broadband Internet access

traffic from the traffic for specialized services.<sup>16</sup> For example, the shared platform contains extra capacity to preserve high-quality IPTV signals during moments of extreme network congestion, but such capacity is otherwise available to enhance the performance of best-effort Internet access during all other times. Any forced-segregation regime would waste this capacity, impair best-effort Internet performance, and senselessly deprive consumers of the economies of scale and scope found in today's dynamically shared access platforms. Finally, the ubiquity, diversity, and quickly evolving nature of specialized services illustrate a key point. The Commission could not adopt one-size-fits-all rules for all of these protean services without creating enormous unintended consequences. The Commission should thus monitor the marketplace and tailor its response, if any, only to address particular services insofar as they raise specific and demonstrated policy concerns. As discussed below, no concerns have arisen so far that could plausibly justify new rules. And, in any event, the Commission would lack legal authority to implement any of the *Notice's* heavy-handed regulatory proposals with respect to specialized services.

***Proposals to regulate mobile wireless broadband services.*** As our prior comments have explained, it would also be dangerously counterproductive to impose “neutrality” or “openness” mandates on wireless broadband platforms. Wireless broadband providers confront enormous technical challenges that wired providers do not face. Spectrum constraints, mobility issues, interference, and other unique operational challenges make it especially important to preserve the flexibility of wireless providers to manage their networks. *See AT&T Net Neutrality Comments* at 156-73. Denying them that flexibility would keep them from ensuring a high-quality

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<sup>16</sup> *See, e.g.,* Letter from Chris Riley, Free Press, to Marlene Dortch, FCC, GN Docket Nos. 07-52 and 09-191, at 2 (Oct. 6, 2010) (“*Free Press 10/6/2010 Ex Parte*”) (arguing that specialized services must “be logically or physically separated” from Internet access services).

broadband experience for their customers. Just as important, wireless broadband services are far more diverse than their wired counterparts. Consumers value that diversity, and the Commission would subvert consumer interests if it straitjacketed these services with some abstract “neutrality” ideal.

Unfettered by excessive regulation, the market for wireless broadband services, devices, and applications has developed into a model of unsurpassed competition and consumer choice. As anyone who watches television commercials or reads newspaper ads is aware, wireless providers today offer countless device and service options tailored to the specific needs of their customers. These include a wide variety of data-enabled handsets, smartphones, netbooks, aircards, special-purpose devices such as eReaders and broadband-enabled navigation devices, and emerging M2M devices.<sup>17</sup> And for consumers who want even more options, all major providers also offer “bring-your-own-device” programs that permit the attachment of third-party devices to their networks.<sup>18</sup> The wireless marketplace likewise offers many diverse models for the delivery of applications and content, such as Google’s Android Market, Apple’s App Store, RIM’s Blackberry App World, Nokia’s Ovi Store, independent App stores operated by GetJar and Handango, and many others.

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<sup>17</sup> See, e.g., AT&T, Press Release, *AT&T Adds Nearly 900,000 Connected Devices to Network in 2Q*, July 23, 2010, <http://www.att.com/gen/press-room?pid=18149&cdvn=news&newsarticleid=30975>; AT&T, Press Release, *AT&T Supports More Than 370 Wireless Specialty Devices*, Jan. 26, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30437&mapcode=consumer>.

<sup>18</sup> See AT&T, Customers, Devices, <http://choice.att.com/flash/customersdevices.aspx> (explaining to AT&T customers that they can “either conveniently get a phone through AT&T for guaranteed worry-free functionality, or bring any GSM Phone and [AT&T will] connect it to [its] network”); Verizon Wireless, Press Release, *Verizon Wireless To Introduce ‘Any Apps, Any Device’ Option For Customers In 2008*, Nov. 27, 2007, <http://news.vzw.com/news/2007/11/pr2007-11-27.html>.

This diversity is a boon to consumers. For example, those who prefer a more secure and stable environment, where they can feel safe about the applications they use and confident that those applications will work well on their wireless devices, tend to choose more managed models, such as the iPhone and its associated App Store. *AT&T Net Neutrality Reply Comments* at 68-69. By contrast, those who prefer a more flexible experience that allows greater customization can select one of many less managed options, such as the Google Android model available on devices offered by numerous providers, including AT&T. *Id.* at 68. Consumers can also obtain compatible applications and content directly from the unmediated Internet over their wireless devices.

In sum, today's broadband ecosystem is a monument to unbridled consumer choice. Many of the ostensible "consumer" groups commenting in this proceeding, however, would perversely deny consumers such choice, forcing them all to buy essentially the same homogenized, one-size-fits-all service. That outcome would not only kill off the thriving product diversity that consumers value today, but also diminish wireless providers' incentives to invest in innovation and network upgrades that distinguish their offerings from those of competitors. And if, as contemplated in the *Notice*, the Commission adopted the compulsory "bring-your-own-device" regime favored by these interest groups,<sup>19</sup> it would undermine the discounted device/service contract model that millions of American consumers value today—and that is integral to the Administration's efforts to promote greater broadband adoption by low-

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<sup>19</sup> See generally Andrew Afflerbach & Matthew DeHaven, *Any Device and Any Application on Wireless Networks: A Technical Strategy for Evolution*, at 16-42 (Jan. 13, 2010) ("*Afflerbach & DeHaven Paper*") (attached as Appendix A to Comments of New America Foundation et al., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52 (filed Jan. 14, 2010)).

income and minority consumers.<sup>20</sup> Similarly, if the Commission adopted an “any application” mandate for all wireless broadband platforms, as suggested in the *Notice*, it would threaten a number of limited-purpose or single-purpose devices that are popular with consumers and business today, including eReaders, IP-enabled navigation devices, and machine-to-machine devices.

Finally, imposition of an “any device” or “any application” obligation on mobile broadband services would be as unlawful as it would be unwise. When it imposed “open platform” obligations on the 700 MHz C Block spectrum, the Commission recognized that those obligations could have “unintended drawbacks,” and, accordingly, stated that it would not impose them more broadly until after the industry could study the results of the C Block experiment.<sup>21</sup> If the Commission were to reverse course now, it would vastly devalue other spectrum, which, given the Commission’s promises, fetched far more at auction than it would have if encumbered by anything resembling the C Block’s openness obligations. And in all events, section 332(c) of the Communications Act expressly bars the Commission from imposing common-carrier-style obligations on any wireless service that is not a “commercial mobile radio service”—and the Commission has already definitively concluded that wireless broadband services do *not* meet the statutory definition of such a service.<sup>22</sup>

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<sup>20</sup> See Diaz, *Study: Minorities leading, supra*.

<sup>21</sup> See Second Report and Order, *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, 22 FCC Rcd 15289, 15364 ¶ 205 (2007).

<sup>22</sup> See 47 U.S.C. § 332(c)(2); Declaratory Ruling, *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901, 5917-18 ¶ 45 (2007) (“*Wireless Broadband Order*”); see generally Comments of AT&T Inc., *Framework for Broadband Internet Service*, GN Docket No. 10-127 (filed July 15, 2010) (“*AT&T Title II Comments*”).

Rather than stifling the nascent markets for specialized and mobile broadband services with unnecessary and ill-conceived net neutrality regulations in response to artificial deadlines,<sup>23</sup> the Commission should remain true to Chairman Genachowski's pledge to conduct a fact-based, data-driven examination of these issues. And it should likewise remain receptive to reasonable, middle-ground compromise solutions like those that were earnestly pursued by a variety of stakeholders this past summer under the auspices of Commission staff and, separately, with the leadership of the House Commerce Committee.<sup>24</sup> While differences of opinion may still exist, there is now more common ground among most of the various stakeholders than at any time in the long-running debate over net neutrality.<sup>25</sup> The Commission can best serve the goals of the Recovery Act by continuing to work cooperatively to bridge those differences and deliver the vast benefits of broadband to all Americans as Congress intended.

## DISCUSSION

- I. **THE COMMISSION SHOULD ALLOW SPECIALIZED SERVICES TO DEVELOP UNHINDERED BY INNOVATION-STIFLING "NEUTRALITY" OBLIGATIONS.**
  - A. **The Commission Should Adopt a Targeted Definition of "Broadband Internet Access Service" That Unambiguously Excludes Specialized Services.**

To the extent the Commission ultimately adopts any requirements governing the provision of "broadband Internet access services" in this proceeding, its first challenge is to

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<sup>23</sup> See Free Press, Press Release, *FCC Delays Rulemaking on Net Neutrality Again*, Sept. 1, 2010, <http://www.freepress.net/press-release/2010/9/1/fcc-delays-rulemaking-net-neutrality-again> ("It is time for the FCC to stop writing notices and start making clear rules of the road.").

<sup>24</sup> See Cecilia Kang, *FCC officials meet with AT&T, Verizon, Google over Internet regulation*, Wash. Post, June 21, 2010, [http://voices.washingtonpost.com/posttech/2010/06/senior\\_officials\\_at\\_the\\_federa.html](http://voices.washingtonpost.com/posttech/2010/06/senior_officials_at_the_federa.html); Amy Schatz, *Talks Resume on Internet Traffic*, Wall St. J., Aug. 19, 2010, <http://online.wsj.com/article/SB10001424052748703649004575437792793624952.html>.

<sup>25</sup> Letter from Robert W. Quinn, Jr., AT&T, to Marlene Dortch, FCC, GN Docket Nos. 09-191 & 10-127, at 4 (filed Sept. 15, 2010), <http://fjallfoss.fcc.gov/ecfs/document/view?id=70209102330> ("*AT&T Sept. 15 Letter*").

define such services properly and to distinguish them from other types of broadband-based services. As explained in our prior comments, the Commission should reject calls to define broadband Internet access services “broadly” (*Notice* at 3), and should instead define the term to include only those services that offer open-ended Internet connectivity.

The 2009 *Open Internet NPRM* proposed to define the category of “broadband Internet access services” so broadly as to cover *any* “data transmission” between an end-user device and *any* “endpoints reachable, directly or through a proxy, via a globally unique Internet address assigned by” IANA. *Open Internet NPRM* at Appx. A, § 8.3. As we have explained, this definition would sweep in many “specialized” services that merely use the common *addressing* scheme for Internet Protocol services, but that do not constitute “broadband Internet access services” under any current understanding of that term. *AT&T Net Neutrality Comments* at 97-98. These services include remote heart monitors; telemedicine applications that permit high-definition images to be transmitted in real time; utility meters and smart-grid devices; networked vending machines; vehicle telemetry sensors; various network-based VPN services offered to business customers; specialized consumer services integrated with special-purpose devices such as eReaders (*e.g.*, from Amazon and Barnes & Noble) and broadband-enabled GPS navigation devices (*e.g.*, from Garmin and TomTom); and IPTV services and the “widgets” offered in connection with them (*e.g.*, from AT&T and more than 200 others).

Imposing “open Internet” rules on these and other specialized services, many of which have not yet even been conceived, would be grossly irresponsible and would nip countless such services in the bud. There is no discernible public policy reason to require a heart monitoring service, smart-Grid device, or eReader—to name just a few examples—to offer “open Internet” connectivity simply because those services are provided over broadband transmission platforms

that convey packets by use of the Internet protocol. Nor is there any reason to require IPTV providers to offer the same distribution terms to all content providers, given that IPTV providers must compete with more established MVPD providers that are not required to offer the same distribution terms to every content provider.

The *Open Internet NPRM* suggested that the Commission could somehow cope with the patent overbreadth of its proposed definition of “broadband Internet access service” by carving out “managed” or “specialized” services from that definition on a case-by-case basis. *Open Internet NPRM*, 24 FCC Rcd at 13105-06 ¶ 108. But that approach would merely generate long-term investment uncertainty as the industry litigates, service by service, precisely what services are subject to any “neutrality” rules. *AT&T Net Neutrality Comments* at 96-102. Indeed, not even leading pro-regulation advocates profess to know how to identify or define “specialized” or “managed” services. As Public Knowledge, Consumers Union, the New America Foundation, Media Access Project, and the Center for Media Justice explained in their joint comments, “the Commission should not define or classify such managed services because the record is not yet clear on what types of services would fall under this category.”<sup>26</sup> Free Press likewise told the Commission that the “issues surrounding Managed Services are not pressing, and clearly there is not enough of an evidentiary basis for the Commission to establish a new regulatory regime[.]” for them.<sup>27</sup>

While the joint commenters urged that managed services “should be dealt with in a subsequent proceeding,”<sup>28</sup> the point is that the services should not in the meantime be swept into

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<sup>26</sup> Comments of Public Interest Commenters, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 32 (filed Jan. 14, 2010).

<sup>27</sup> *Free Press Net Neutrality Comments* at 6.

<sup>28</sup> *Id.*

an overbroad definition of “broadband Internet access.” Rather, it makes far more sense to modify the definition of that term as proposed in the NPRM so that any rules focus, in the first instance, on the services that the Commission *means* to focus on: services offering open-ended Internet connectivity.<sup>29</sup> In particular, the Commission should define “Internet access service” to mean a service that offers to the public the capability to transmit data to, and receive data from, all or substantially all endpoints that have a unique IANA-assigned Internet address that is publicly announced and globally reachable (either directly or through a proxy). *Id.* at 98-100.

## **B. Specialized Services Do Not Threaten the Open Internet.**

The *Notice* identifies “three general areas of concern” that various parties have expressed about specialized services. *Notice* at 2. None of those concerns withstands scrutiny.

### **1. “Supplanting the Open Internet.”**

The *Notice* recites concerns raised by some parties that, if providers offer “specialized services” over their broadband platforms, they will somehow develop perverse incentives to “constrict or fail to continue expanding” capacity for their broadband Internet access services, *see id.* at 2, converting them into “the digital equivalent of a winding dirt road” in order to protect their purportedly more lucrative specialized services.<sup>30</sup> That hypothesis, for which the *Notice* cites no evidence, is both misconceived and refuted by all available facts in the marketplace.

As discussed above, many broadband network operators today offer triple-play packages of voice, video, and Internet access services over “converged” or “shared” network infrastructure, where bandwidth is allocated among the different services in order to deliver the

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<sup>29</sup> *Report to Congress*, 13 FCC Rcd at 11531 ¶ 63 (discussing Internet access service as providing open-ended Internet connectivity).

<sup>30</sup> Lessig & McChesney, *No Tolls on the Internet*, *supra*.

service quality that consumers demand for each of the services. AT&T's provision of IPTV and VoIP over its U-verse platform is particularly instructive in this regard. The IP packets associated with the IPTV service are transmitted over the same access infrastructure as the packets associated with AT&T's broadband Internet access service. *See AT&T Net Neutrality Comments* at 118-19. The same is true for all other providers of IPTV service—which today include SureWest, CenturyLink, and over 200 other telephone companies, and which over time will come to include most other providers of MVPD services over wired transmission platforms.<sup>31</sup>

To make sure that IPTV signals receive the bandwidth they need to function properly, AT&T uses Layer 3 DiffServ functionality and various related mechanisms to mark IPTV packets for special handling. *See AT&T Net Neutrality Comments* at 51-56. AT&T (and many other providers) likewise mark packets associated with their fixed VoIP services to ensure the consistently high call quality that consumers demand. AT&T thereby separates its U-verse “triple play” platform into three logically (not physically) discrete voice, video, and Internet access streams and gives each service the network performance that it needs to meet customer expectations. Significantly, this dynamic-sharing arrangement benefits all three services: the

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<sup>31</sup> *AT&T Net Neutrality Reply Comments* at 7 n.10 (citing National Exchange Carrier Association, *Trends 2009: A report on rural telecom technology*, at 11 (2009), <https://www.neca.org/cms400min/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=2392>); Comments of Verizon and Verizon Wireless, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket No. 07-52, at 18 (filed Jan. 14, 2010) (“*Verizon Net Neutrality Comments*”); Comments of SureWest Communications, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket No. 07-52, at 2 (filed Jan. 14, 2010); Comments of CenturyLink, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket No. 07-52, at 7 n.17 (filed Jan. 14, 2010); Comments of Comcast Corporation, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket No. 07-52, at 2 (filed Jan. 14, 2010) (explaining that Comcast is rolling out DOCSIS 3.0); Dan O’Shea, *Comcast reportedly pursuing IPTV project*, FierceIPTV.com, Oct. 29, 2009, <http://www.fierceiptv.com/story/comcast-reportedly-pursuing-iptv-project/2009-10-29>.

extra capacity built into the network to preserve QoS for video and voice services during moments of extreme congestion is available at other times—*i.e.*, most of the time—to enhance the performance of best-effort Internet access.

If the “winding dirt road” rhetoric had any merit, one would have expected to see AT&T and similar providers use these prioritization capabilities to suppress the bandwidth allocated to best-effort Internet traffic. But, in fact, the opposite has happened. The top Internet access speed available over the shared U-verse platform—24 Mbps—is several times greater than the top speed attainable from AT&T’s legacy DSL service, even though the infrastructure used for the latter service is *not* shared with any managed video service. *See AT&T Net Neutrality Comments* at 53. The success of these services has led Frost and Sullivan to choose AT&T U-verse as its “2009 North American Consumer Communications Service Product of the Year”—and to cite the Internet access portion in particular as “a very compelling component of the product offering,” which together with U-verse video and voice delivers “great value and a cutting-edge experience to millions of consumers.”<sup>32</sup> And based on a recent survey of 69,000 consumers, Consumer Reports found that “AT&T U-verse received top scores for Internet and TV service and [is] among the better phone providers.”<sup>33</sup>

For their part, the leading cable companies are likewise offering much faster Internet access services over their recently upgraded DOCSIS 3.0 facilities, which also support voice and video services.<sup>34</sup> Verizon similarly offers best-effort Internet access speeds of up to 50 Mbps on

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<sup>32</sup> Frost & Sullivan, *2009 Award, supra*, at 2.

<sup>33</sup> *Consumer Reports Press Release*; see also note 14, *supra* (discussing J.D. Power accolades).

<sup>34</sup> *See Comcast, What are the new Internet speeds that Comcast will offer with the launch of DOCSIS 3.0?*, <http://customer.comcast.com/Pages/FAQViewer.aspx?seoid=What-are-the-new-speeds-with-Docsis-3-0> (explaining that Comcast will offer speeds of 50 Mbps with the launch of DOCSIS 3.0); Cablemodem.net, *DOCSIS 3.0—The Wideband Era Begins*, <http://www.cable->

the FiOS platform, which also supports Verizon’s subscription video service, and those speeds far exceed the top speeds available on Verizon’s traditional DSL platform.<sup>35</sup>

Clearly, none of these providers is cannibalizing Internet capacity or creating an Internet “dirt road” to protect specialized services over a shared transmission platform. To the contrary, they are offering ever-faster Internet access services at the same time they are rolling out those specialized—and, in the case of IPTV and VoIP, “prioritized”—services. Tellingly, the pro-regulation advocates rarely, if ever, acknowledge that these radically higher-speed Internet access services nearly always accompany “specialized services” on a shared transmission platform. But the very existence of these higher-speed services completely disproves their “dirt road” hypothesis.

AT&T and other providers are able to offer dramatically higher speeds for all these services—best-effort and “prioritized”—only because they have invested billions of dollars in upgrading substantial portions of their networks with fiber optics. Those investments make economic sense in the first place only because the new infrastructure *is shared*—because it supports voice and video services in addition to Internet access, with all attendant economies of scale and scope. And such sharing, in turn, is technologically feasible only because providers can treat distinct classes of traffic differently, depending on the quality of service consumers have come to expect for each service. For example, consumers will neither notice nor care if bulk Internet file transfers vary by half a second in their completion times, but consumers will care a great deal if the video feed of a live sports event pixelates because the associated IPTV

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modem.net/information/docsis-3-wideband.html (noting that “Charter Communications has come on board the DOCSIS 3.0 bandwagon with its launch of 60 Mbps cable wideband” and that “DOCSIS 3.0 makes it possible for cable operators to offer Internet connection speeds at hundreds of megabits and, potentially, hundreds of gigabits per second.”).

<sup>35</sup> Verizon, Internet, <http://www22.verizon.com/Residential/internet/>.

packets have received inadequate handling to cope with a momentary instance of network congestion.<sup>36</sup>

Years of experience in the marketplace for enterprise-level services confirms the same basic point. AT&T offers enterprise customers—including content providers—AT&T’s enterprise-grade broadband Internet access service, known as Managed Internet Service (“MIS”). In addition to offering customers a robust best-effort Internet access experience, MIS also gives customers the option (for an additional fee) to designate certain packets for special handling on AT&T’s network. Contrary to the misconceptions of some pro-regulation advocates, *hundreds* of businesses voluntarily choose to subscribe to MIS with this additional class of service (CoS) feature today, and the substantial majority of those are small- and medium-sized firms.<sup>37</sup> Again, the very existence of this service—and the continued robustness of the *non*-CoS best-effort service—belie the hypothesis that such “specialized” or “managed” service capabilities harm customers or the open Internet.

In short, all the data confirm the same conclusion: despite alarmist rhetoric from pro-regulation commenters, network providers do not “manufacture scarcity” for the purpose of diverting customers from lower-priced, “best-effort” services onto higher-priced “prioritized”

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<sup>36</sup> This observation underscores a more general point about “prioritization” discussed in our principal comments in this proceeding. Just as it is efficient and pro-consumer to logically (rather than physically) segregate the dedicated IPTV stream from best-effort Internet traffic, so too is it efficient and pro-consumer to permit different classes of service for different types of applications and content *within* the Internet portion of the pipe—as, again, broadband providers have long done for enterprise customers. See *AT&T Net Neutrality Comments* at 56-63; *AT&T Net Neutrality Reply Comments* at 60-64.

<sup>37</sup> Letter from Robert W. Quinn, Jr., AT&T, to Marlene Dortch, FCC, GN Docket Nos. 09-191 & 10-127, at 4 (filed Aug. 30, 2010), <http://fjallfoss.fcc.gov/ecfs/document/view?id=70209100395>; see also *AT&T Sept. 15 Letter* at 2 (further explaining AT&T’s paid prioritization services).

services. Instead, competition and consumer demand drive them to allocate an efficient *and increasing* amount of bandwidth to all services to satisfy customer expectations.

## 2. “Bypassing Open Internet Protections.”

The *Notice* also seeks comment on concerns that “[o]pen 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, and if consumer protections do not apply to such services.” *Notice* at 2. The *Notice*, however, does not explain why these protections would be “weakened,” and it is not clear, even as a theoretical matter, how consumers would be harmed.

To be sure, the concern might relate to services that, from a consumer’s perspective, are genuinely equivalent to broadband Internet access services yet were designed for the specific purpose of evading the requirements applicable to broadband Internet access service. In that situation, the Commission might be justified in treating the services alike for regulatory purposes. But speculation about the possibility of sham distinctions is hardly a valid or judicially sustainable basis upon which to rest a prescriptive regulatory regime.

On the other hand, the question identified in the *Notice* might be construed as relating to specialized IP services that consumers do *not* view as equivalent to broadband Internet access. In that case, the services might *already* be subject to an existing body of regulation, whether or not they could be classified as “specialized services.” For example, IPTV is currently subject to the rules generally applicable to MVPDs under Title VI of the Communications Act and the Commission’s implementing regulations.<sup>38</sup> Alternatively, as with (for example) meter-readers or

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<sup>38</sup> MVPD services are subject to several FCC rules, including closed-captioning for the hearing-impaired, video descriptions for the vision-impaired, and emergency-information functionality that is accessible to persons with visual and hearing disabilities. 47 C.F.R. pt. 79 (2010).

GPS services or the Nook eReader, the “specialized” service in question might not be subject to “consumer protection” oversight by this Commission—but that is only because there is no discernible *need* for such oversight. Of course, such services are presumably subject to the *FTC’s* consumer-protection authority under Section 5 of the FTC Act. *See* 15 U.S.C. § 45(a)(2).<sup>39</sup>

There is also no basis for fearing that any consumer harm would arise if, in the words of the *Notice*, “specialized services are integrated into broadband Internet access service; for example, if a broadband provider offers broadband Internet access service bundled with a ‘specialized service’ that provides prioritized access to a particular website.” *Notice* at 2. Again, AT&T and hundreds of other providers *already* offer “broadband Internet access service bundled with a ‘specialized service’ that provides prioritized access” to particular content. That is the essence of the IPTV and VoIP products that AT&T bundles with broadband Internet access service in its highly popular triple-play U-verse package. That “bundling” produces enormous consumer value and has won AT&T several independent awards. *See* pages 6-7 and n.14, *supra*. Many other providers offer similar triple-play packages, at great benefit to consumers. And no one could credibly argue that providers should stop offering consumers these highly popular packages. To the contrary, the Commission should be *affirmatively encouraging* broadband providers to develop additional specialized services to be provided over their broadband platforms, which will improve the economic case for extending those platforms into higher-cost areas of the country, as envisioned by the Recovery Act and the *National Broadband Plan*.

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<sup>39</sup> As we have previously explained, the FTC would lose any consumer-protection role to the extent this Commission tries to move non-Title-II services (such as broadband Internet access itself) within the scope of Title II common-carrier regulation in order to impose net neutrality rules on those services. *AT&T Title II Comments* at 13-14, 19-20, 35-36.

### 3. “Anticompetitive Conduct.”

Finally, the *Notice* seeks comment on concerns that broadband providers may “engage in anti-competitive conduct with respect to specialized services, particularly [1] if they are vertically integrated providers of content applications or services; or [2] if they enter into business arrangements with third-party content, application, or service providers concerning specialized service offerings.” *Notice* at 3. The *Notice* does not describe the nature of the anti-competitive conduct, however, nor does it explain why new, prescriptive Commission regulation (rather than well-established antitrust oversight) is needed to address this hypothetical conduct.

To begin with, any “anticompetitive conduct” that produces genuine consumer harms is already subject to antitrust sanctions. Concerns about future unspecified “anticompetitive conduct” by isolated market actors cannot justify striking the sledgehammer of preemptive regulation against an emerging class of services, particularly when most of those services—as here—are offered by providers in a vigorously competitive marketplace with neither the incentive nor the ability to act anticompetitively in the first place. *See AT&T Net Neutrality Comments* at 119-23.

“Vertical integration” provides no particular basis for concern either. First, many broadband providers are not “vertically integrated” in any substantial and relevant sense. For example, because AT&T is not vertically integrated with content studios, its provision of IPTV services could not conceivably give rise to concerns about anticompetitive favoritism for particular content within those services. To the contrary, because AT&T is providing much-needed competition to dominant cable providers, its provision of IPTV services is decidedly *pro*-competitive.<sup>40</sup> Similarly, few broadband Internet access providers are vertically integrated with

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<sup>40</sup> Wireline competitors are uniquely positioned to exercise price discipline in the video market. In the *MDU Order*, the Commission explained that “the presence of a second wire-

the providers of other higher-layer services offered on a “specialized” basis, such as medical monitoring, vehicle telemetry, smart-grid and utility monitors, telemedicine applications, and the like. In any event, even where a platform provider *is* vertically integrated with a provider of complementary applications or content, modern economic analysis recognizes that, except in very narrow circumstances, that provider generally has no incentive to engage in anticompetitive behavior if it is free from substantial price regulation, as broadband providers are today. *See AT&T Net Neutrality Comments* at 119-23. Indeed, that is true even where a platform provider is a full-blown *monopolist*—unlike today’s broadband providers, which generally face considerable inter-platform competition. *Id.*

There is even less basis for concern about “anticompetitive conduct” in the second scenario mentioned in the *Notice*: where the providers of specialized services “enter into business arrangements with third-party content, application, or service providers concerning specialized service offerings.” *Notice* at 3. Countless service providers—large and small—enter into “business arrangements” with providers of complementary goods and services. Such

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based MVPD competitor clearly holds prices down more effectively than is the case where DBS is the only alternative.” Report and Order and Further Notice of Proposed Rulemaking, *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, 22 FCC Rcd 20235, 20244-45 ¶ 17 & n.52 (2007). The Commission has noted that prices are 17 percent lower where wireline cable competition is present. *See* Report on Cable Industry Prices, *Implementation of Section 3 of the Cable Television Consumer Protection & Competition Act of 1992; Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, 21 FCC Rcd 15087, 15087-88 ¶ 2 (2006). Similarly, the GAO concluded that video entry by wireline competitors provides more price discipline to cable operators than DBS and is more likely to cause cable operators to enhance their services and improve their customer service. Government Accountability Office, *Telecommunications: Subscriber Rates and Competition in the Cable Television Industry*, GAO 04-262T at 6 (Mar. 2004). The GAO found that rates for expanded basic cable television service were typically 15 to 41 percent lower in markets with a wireline video competitor, when compared with similar markets that did not have such a competitor. Government Accountability Office, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, GAO-04-241 at 4 (Feb. 2004).

interdependence is the essence of the modern economy. And in virtually all industries, firms enter into one-off business transactions with other firms, without thereby incurring some regulatory obligation to enter into similar transactions with all other potentially interested third parties. There is generally nothing at all “anticompetitive” about such one-off arrangements.

With the limited exception of traditional common-carrier services, the communications field is no different, nor should it be. It would be particularly perverse to apply the *Computer Inquiry* rules or other common-carrier-type obligations to specialized services, as Free Press advocates (*see Free Press 10/6/2010 Ex Parte* at 1). For example, essentially all MVPDs—whether cable companies like Cox, satellite providers like DirecTV, or IPTV providers like AT&T—enter into case-by-case arrangements to carry the content of particular independent programmers and content providers. Imposing the equivalent of overarching “neutrality” obligations on IPTV providers—simply because they transmit their television signals via IP rather than a legacy video distribution technology—would undermine the premise of how all MVPD services are offered. And this, in turn, would threaten the business models of hundreds of IPTV providers and deter them from investing in the formidably expensive fiber infrastructure needed to support IPTV in the first place (as well as next-generation Internet access and VoIP services). Any such proposal would thus hearken back to the Commission’s failed “video dialtone” experiment in the 1990s. There the Commission adopted so many prophylactic restrictions on video dialtone services that telephone companies never offered them at all.<sup>41</sup> In the end, consumers were far worse off for the lack of additional competition. The Commission should take pains to avoid a similar mistake here.

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<sup>41</sup> See, e.g., Thomas W. Hazlett & George Bittlingmayer, *The Political Economy of Cable “Open Access,”* AEI-Brookings Joint Center, at 35-36 (May 2001), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=286652#PaperDownload](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=286652#PaperDownload).

Apart from IPTV, “neutrality” obligations that limit business arrangements between ISPs and “third-party content, application, or service providers,” *Notice* at 3, could stifle countless other specialized services as well. For example, a health-care provider may wish to provide the capability for a first-responder to transmit high-definition images in real time or the capability for patients to receive high-quality medical monitoring services on an outpatient basis from their homes.<sup>42</sup> To enable the broadest possible availability for these services, the health-care provider may wish to enable them to function over broadband Internet access connections, and it may wish to ensure that those connections are capable of providing the consistently high levels of network performance necessary to support those services. Thus, the health-care provider may wish to enter into a voluntary commercial arrangement with a broadband Internet access provider to obtain the requisite network performance, for example, by purchasing a class of service capability similar to the capability AT&T offers with its MIS service, discussed above.

For similar reasons, an educational institution may wish to provide high-quality distance-learning applications over broadband Internet access service, which would enable the institution to increase opportunities for rural and low-income students.<sup>43</sup> And the educational institution may wish to enter into a voluntary commercial arrangement with a broadband Internet access provider to obtain the requisite network performance. Precluding these and other similar voluntary arrangements—or discouraging them through the imposition of misplaced “common-carrier” obligations—would scuttle many of the goals that Congress enumerated in the Recovery Act and that the Commission articulated in the *National Broadband Plan*. See pages 1-4, *supra*;

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<sup>42</sup> See, e.g., *AT&T Sept. 15 Letter* at 7.

<sup>43</sup> *Id.* at 7-8 (discussing various types of performance-sensitive applications that currently, and, in the future, could benefit from Managed Internet Services).

page 30, *infra* (discussing incompatibility of nondiscrimination rules with the Internet’s ethic of free-wheeling experimentation).

**C. The Commission Should Reject Proposals for Substantive Regulation of Specialized Services.**

Based on the misguided “concerns” discussed above, the *Notice* seeks comment on proposals by various pro-regulation interest groups for substantive intervention in the marketplace for specialized services. *Notice* at 3-4. None of these proposals has merit.

As an initial matter, the Commission has not identified any legal authority that might allow it to impose any of these proposed substantive rules. All of the “specialized” services at issue here—ranging from M2M and smart-grid applications, to medical monitoring, to eReaders and IPTV—are classic information services: they offer a capability “for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.” 47 U.S.C. § 153(20). As noted, some of these specialized services are already subject to service-specific obligations under the Communications Act—for example, IPTV providers are subject to the rules applicable to MVPDs, and M2M and wireless health-monitoring devices must comply with interference rules. Except to that extent, however, the Commission has no authority to regulate these services at all unless doing so is reasonably ancillary to the discharge of its specific statutory responsibilities. *See Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010). No one has yet plausibly explained how any proposed rule discussed here could meet that test. And even apart from that limitation, 47 U.S.C. § 153(44) independently precludes the Commission from imposing any “nondiscrimination” or other common-carrier-type obligations on any information service provider. *See AT&T Net Neutrality Comments* at 210-11.

In any event, as discussed below, even if the Commission could somehow establish plenary authority to regulate specialized services, such rules would make no sense and do far more harm than good.

**1. “Non-Exclusivity in Specialized Services.”**

The Commission asks whether it should “[r]equire that any commercial arrangements with a vertically-integrated affiliate or a third party for the offering of specialized services be offered on the same terms to other third parties.” *Notice* at 4. Free Press advocates precisely this outcome in arguing that all specialized services should “be subject to the *Computer Inquiries* rules,” and “network capacity for such services” should be “offered on a comparable basis ... to all third part[ies]” if it is offered to any third party. *Free Press 10/6/2010 Ex Parte* at 1-2 (emphasis added).<sup>44</sup> This proposal is absurd—as becomes immediately apparent once one considers “specialized services” in the concrete rather than the abstract.

Consider, for example, the IPTV services that AT&T offers in competition with conventional MVPD providers. Just like its cable rivals, AT&T offers consumers an attractive line-up of different channels. Those channels carry content from various third parties, each of which has struck a bilateral and usually highly proprietary deal with AT&T. Similarly, AT&T offers a variety of complementary content through the U-Bar and other interactive services that are available only on U-verse. *AT&T Net Neutrality Comments* at 98. As discussed, if the Commission were to subject IPTV arrangements to a “common-carriage” obligation, it would convert AT&T’s differentiated and commercially attractive MVPD service into a homogenized video-dialtone-like service that could not compete with traditional cable services. *See* page 25,

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<sup>44</sup> As AT&T has previously explained, the Commission should not, and could not lawfully, impose the *Computer Inquiry* rules on broadband Internet access services in today’s competitive environment. *See AT&T Net Neutrality Reply Comments* at 158-62. The same conclusion applies, for the same reasons, to any “specialized” service as well.

*supra*. And this in turn would destroy the economic logic that, to date, has supported the multi-billion-dollar fiber investments needed for both IPTV and next-generation broadband Internet access services.

Also consider eReaders, a number of which are bundled with wireless service provided by a specific carrier. For example, Amazon has entered into sequential contractual relationships with Sprint and now AT&T to provide the 3G component of its Kindle service, which is bundled into the price of the device. Such commercially negotiated arrangements between eReader distributors and wireless Internet service providers have not somehow inhibited competition; instead, it is clear that they have *promoted* entry into the marketplace. For example, some of the first eReaders, such as the Rocket, SoftBook, and Sony Libré, were largely unsuccessful, in part because consumers found it inconvenient to load content onto those devices via a wired connection to a computer.<sup>45</sup> But Amazon's partnership with Sprint to produce the first wireless Kindle was wildly successful and opened the market for 3G-powered devices.<sup>46</sup> To compete with the Kindle, Sony partnered with AT&T to offer its 3G-powered Reader Daily Edition.<sup>47</sup> The competition cultivated by these and similar partnerships between eReader manufacturers and network carriers continues to thrive. The iRex reader recently entered the market using Verizon's 3G network, the new Que reader uses AT&T's 3G network, and the Skiff is expected to debut on Sprint's 3G network later this year.<sup>48</sup> In all, over forty new eReaders are expected to

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<sup>45</sup> Peggy Smedley, *Storming the Kindle Kingdom*, CONNECTED WORLD, July/August 2010, at 62.

<sup>46</sup> Stephen Lawson, *Amazon Kindle Finds a New Use for 3G*, PC World, Nov. 20, 2007, [http://www.pcworld.com/article/139810/amazon\\_kindle\\_finds\\_a\\_new\\_use\\_for\\_3g.html](http://www.pcworld.com/article/139810/amazon_kindle_finds_a_new_use_for_3g.html) (one analyst reported that "Amazon's wireless business model for the Kindle seems to be unprecedented").

<sup>47</sup> Smedley, *Storming the Kindle Kingdom* at 62-63.

<sup>48</sup> *See id.* at 66-67.

enter the market over the next year and a half<sup>49</sup>—all in the absence of prescriptive net neutrality regulations

These observations illustrate a broader point about the inappropriateness of imposing “common-carrier” or “nondiscrimination” rules on IP services generally. The new economy is based on free-wheeling experimentation with new business ideas and commercially negotiated strategic alliances. Nondiscrimination rules are, by their nature, designed for more static, less innovative environments in which business plans change less rapidly and fast-paced experimentation is less critical to the success of the industry. If applied to the Internet and IP-based specialized services, they would deter such experimentation by magnifying the downside risk of business misjudgments. A firm would be less likely to try out new services or speculative business alliances if, upon discovering that they are unprofitable, it nonetheless remains bound to offer the same services to additional buyers or to enter into similar alliances with other companies on the same terms. *AT&T Net Neutrality Reply Comments* at 82. In short, the “in for one, in for all” ethic of common-carrier regulation undermines the creative dynamic of customization at the heart of the new economy.

Finally, as discussed, vertical integration rarely presents a risk of anticompetitive discrimination: *i.e.*, discrimination that harms consumers and the competitive process itself, as opposed to merely rivals of the vertically integrated firm.<sup>50</sup> But the appropriate response to that narrow risk is not to adopt prophylactic rules that hamstring entire industries, but to deal with anticompetitive conduct on an individualized basis, if and when it arises.

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<sup>49</sup> *Id.* at 65.

<sup>50</sup> *See, e.g., Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977) (antitrust law is designed for “the protection of competition not competitors”) (internal quotation marks omitted).

## 2. “Limit Specialized Service Offerings.”

The *Notice* seeks comment on a proposal to “[a]llow broadband providers to offer *only a limited set* of new specialized services, with functionality that cannot be provided via broadband Internet access service, such as a telemedicine application that requires enhanced quality of service.” *Notice* at 4 (emphasis added). This proposal should be rejected out of hand. The government almost never prohibits providers from offering services that consumers want to buy, and for good reason. The “limitation on specialized services” proposed here would senselessly ban broadband providers from offering an inestimable range of services that *consumers* value, and would do so for no apparent reason other than to force consumers to obtain applications over platforms subject to open access requirements—even if that is not what they want. Any such proposal should be anathema to any government agency overseeing a market-based economy.

Line-of-business restrictions are, and always have been, exceedingly rare anywhere in the economy, and comparisons to previous line-of-business restrictions in this sector reveal just how anomalous the restriction proposed here would be. First, the proposed rule would closely resemble the appropriately short-lived line-of-business restriction imposed in the *Computer I* regime, which barred providers of “basic” telecommunications services (*e.g.*, local exchange carriers) from providing “enhanced” (data-processing) services as well.<sup>51</sup> The Commission abolished that rule in the early 1980s after concluding that it was unnecessary even in a highly regulated marketplace where incumbent LECs were *monopolists* that controlled the only telecommunications platform for virtually all homes and businesses.<sup>52</sup> The rule proposed here

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<sup>51</sup> See generally Final Decision and Order, *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, 28 F.C.C.2d 267 (1971).

<sup>52</sup> See Final Decision, *Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C. 2d 384, ¶¶ 195, 282-85 (1980).

would also resemble the line-of-business restriction that a federal antitrust court imposed on the post-divestiture Bell Operating Companies in 1982 as part of a consent decree, which reflected a conclusion that the Bell System had monopoly power and had persistently abused that power to exclude competition in violation of the Sherman Act.<sup>53</sup>

But unlike those line-of-business restrictions, the one proposed here would apply to a market the Commission has already affirmatively *deregulated*, that is characterized by *competition* rather than monopoly, and that has involved *no anticompetitive conduct, no market failure, and no consumer harm* in the provision of the relevant service. *See AT&T Net Neutrality Comments* at 114-40. And this proposed restriction would be not only unprecedented and indefensible, but destructive. It would prevent broadband providers from offering a broad range of high-value services to consumers, chill innovation, and cast doubt for the first time on certain *existing* network practices. The Commission should always judge this and similarly abstract proposals for regulatory intervention by reference not to speculative theory, but to how such proposals would affect real-world services and consumers. Here, that perspective is damning.

Consider once again the case of IPTV, a “specialized service” currently enjoyed by millions of American consumers. Some might argue that this service does not provide any “functionality that cannot be provided via broadband Internet access service,” *Notice* at 4, because AT&T’s triple-play customers can watch many television shows either via the IPTV service or via Hulu, YouTube, or any number of other online sites that they reach by means of AT&T’s Internet service instead of the IPTV service. Indeed, the latter option will often provide them with a high-resolution format similar to what they can receive via the IPTV service, but without the same consistent service quality. Again, when the discussion moves from the abstract

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<sup>53</sup> *United States v. AT&T*, 552 F. Supp. 131, 223-24 (D.D.C. 1982), *aff’d sub nom. Maryland v. United States*, 460 US 1001 (1983).

to the concrete, no credible advocate would argue that the Commission should force AT&T to turn off its “specialized” IPTV service in order to protect the competitive prospects for Hulu and other over-the-top providers of online video services.<sup>54</sup> Such an outcome would be wildly anti-consumer. But it could be the logical consequence of any ban on the provision of specialized services “with functionality that can[] be provided via broadband Internet access service,” given that, at some level of generality, the basic “functionality” of IPTV services *can* be provided over “broadband Internet access service.”

At the end of the day, such a ban could only give broadband providers perverse incentives to keep their voice and video networks *physically separate* from the IP networks used for Internet access: that is, to create redundant networks in order to ensure that their consumers retain the service quality they need for applications that must be run on a managed network. That result—if economically achievable at all—would introduce radical inefficiencies into the communications market. *See, e.g., AT&T Net Neutrality Comments* at 62-63. It would lead to higher prices for all network customers, including residential consumers, who must ultimately pay for these unnecessary costs. It would defeat the promise of convergence by forcing different services back onto physically distinct, “siloeed” platforms. And it would hamper video competition against incumbent cable television companies. *Id.*

It is no answer to say that regulators should “grandfather” existing specialized services such as IPTV and fixed VoIP and apply the proposed line-of-business restriction only against “new” specialized services. The pro-consumer success of IPTV and fixed VoIP services

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<sup>54</sup> *See* Prepared Statement of Tim Wu before the House Comm. on the Judiciary, Telecom & Antitrust Task Force, at 51 (Apr. 25, 2006), [http://commdocs.house.gov/committees/judiciary/hju27225.000/hju27225\\_0.htm](http://commdocs.house.gov/committees/judiciary/hju27225.000/hju27225_0.htm) (asserting that “[t]he best proposals for network neutrality rules ... leave open legitimate network services that the Bells and Cable operators want to provide, such as offering cable television services and voice services along with a neutral internet offering”).

underscores the folly of any broad-brush prohibition on specialized services with Internet-based counterparts. There is no reason to suppose that the prohibition would be less foolish as applied to “new” specialized services, which could take any number of currently unimagined forms. As in other contexts, the Commission should wait for any market failure to arise before considering appropriate remedies. It certainly should not address tenuous speculation about possible future harms by killing off whole service classes that consumers would value.

In all events, this proposed ban on emerging technologies would be wholly inconsistent with Section 7 of the Communications Act, which declares that “the policy of the United States [is] to encourage the provision of new technologies and services to the public” and imposes on anyone “who opposes a new technology or service ... the burden to demonstrate” why the service should not be provided. 47 U.S.C. § 157. For the reasons discussed above, the Commission could not possibly meet that burden here.

### **3. “Guaranteed Capacity for Broadband Internet Access Service.”**

The Commission seeks comment on a proposal to “[r]equire broadband providers to continue providing or expanding network capacity allocated to broadband Internet access service, regardless of any specialized services they choose to offer.” *Notice* at 4. That proposal is, quite simply, a nonstarter as a matter of both law and policy.

First, the government cannot lawfully force private companies to sink billions of dollars in new infrastructure investments unless it is prepared to guarantee them a reasonable rate of return.<sup>55</sup> Of course, the Commission could make no such guarantee, because rate-of-return mechanisms can succeed only in a true monopoly environment, where consumers have no

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<sup>55</sup> *Cf. Guaranty Nat’l Ins. Co. v. Gates*, 916 F.2d 508, 512 (9th Cir. 1990) (legislation regulating industry rates violates due process if it does not “provide[] any mechanism to guarantee a constitutionally required fair and reasonable return”).

alternative to purchasing the regulated company’s services. Here, broadband competition would undermine any effort to secure compensatory returns simply by raising rates. In short, the “guaranteed capacity” proposal would raise severe concerns under the Takings Clause and would subject the public fisc to just-compensation liability, and that fact alone deprives the Commission of authority to adopt that proposal in the absence of clear congressional approval.<sup>56</sup> In any event, the Commission has no statutory authority to force private companies to provide a service, such as Internet access, that the Commission lacks plenary authority to regulate in the first place.<sup>57</sup>

The proposal is also untenable as a matter of policy. To attract investors, all private companies must have autonomy over their capital expenditure plans, along with full discretion to adjust those plans as business conditions change. The “guaranteed capacity” proposal would essentially nationalize every broadband company’s capital expenditure budget. It would indefinitely force each company to invest X dollars in broadband Internet access capacity if it invests Y dollars in capacity for specialized services, and it would thus rob each company of the ability to tailor its investments over time to unpredictable shifts in demand for different types of services. It would thus radically magnify the risks of deploying new networks in the first place. It is difficult to imagine a proposal more alien to American’s free market structure—or more toxic to the Commission’s efforts to encourage private industry to invest the \$350 billion the Commission estimates is needed to deploy next-generation broadband services to all Americans

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<sup>56</sup> See, e.g., *Bell Atlantic Tel. Cos. v. FCC*, 24 F.3d 1441, 1447 (D.C. Cir. 1994) (holding that the Commission cannot mandate the physical collocation of a competitive access provider’s facilities in the absence of express authorization in the Communications Act).

<sup>57</sup> See *Comcast Corp. v. FCC*, 600 F.3d 642, 661 (D.C. Cir. 2010); see also *AT&T Title II Comments* at 67-91.

consistent with the Administration's ambitious economic and broadband-deployment objectives.<sup>58</sup>

#### 4. "No Inhibitions on Internet Access Performance."

Finally, the Commission seeks comment on a proposal to "prohibit specialized services from inhibiting the performance of broadband Internet access services at any given time, including during periods of peak usage." *Notice* at 4. This proposal fundamentally misapprehends the nature of shared or "converged" networks and the central role they play in enabling the economic viability of specialized services. As AT&T and other providers have explained at length, the ability to offer multiple, broadband-enabled services over a single broadband connection makes it possible to justify the substantial investments necessary to deploy that connection in the first place. *See, e.g., AT&T Net Neutrality Comments* at 45-47.

Again, take for example the IPTV services that AT&T and numerous other ISPs provide over the same physical platform as broadband Internet access. The packets associated with the IPTV service are designated for special handling during brief periods of congestion, but otherwise share the same physical platform as the packets associated with the Internet service. *See* pages 6-7, 16-17, *supra*. The entire *point* of designating these packets for special handling is to ensure the same predictably high quality of service that consumers have come to expect when they order traditional cable television services from one of AT&T's video competitors. If the Commission were to ban such prioritization on the ground that it necessarily "inhibit[s] the performance of broadband Internet access services at any given time," it would cause one of two nonsensical results. First, it might keep providers from offering such services altogether, leaving consumers with fewer MVPD choices. Alternatively, it would force providers to physically

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<sup>58</sup> FCC Broadband Task Force, *Status Report on Feb. 17 National Broadband Plan*, at 45 (Sept. 29, 2009), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-293742A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293742A1.pdf).

bifurcate their Internet access streams from their IPTV streams, thereby reducing network efficiency and—worse—depriving the Internet access service of substantial additional bandwidth that would otherwise be available to consumers during periods of *non*-congestion, which constitute the vast majority of the day.<sup>59</sup> Either outcome would be nonsensical and anti-consumer.

**D. The Commission Should Narrowly Focus Any Oversight of Specialized Services on Transparency and Disclosure.**

As discussed, “specialized” broadband services are diverse, fast-evolving, and unquestionably pro-consumer. No one has identified any plausible market “problem” with them that needs to be “fixed” through preemptive regulation. There is thus no rationale for regulating them. That said, AT&T has no objection to a reassessment by the Commission of any policy questions raised by such services in due course, after the industry and the Commission have had more experience with them. *Notice* at 3. And in all events, the Commission should avoid both investment-detering regulatory uncertainty and overbroad prescriptive regulation. In the unlikely event that Commission intervention is ultimately warranted, the Commission should, as it proposes, address any policy concerns about this exceptionally diverse range of services only through individualized adjudication, “informed by engineering expertise,” rather than through “detailed, prescriptive rules that may have consequences that are difficult to foresee.” *Id.* at 1-2.

In the comments it filed in the *Consumer Information and Disclosure* proceeding, AT&T supports a principle favoring increased transparency about the features and limitations of all

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<sup>59</sup> See *AT&T Net Neutrality Comments* at 41-44 (explaining that convergence of services over one IP stream increases network efficiency); Gerald R. Faulhaber & David J. Farber, *The Open Internet: A Customer-Centric Framework*, at 25 (filed as Exhibit 1 to AT&T Net Neutrality Comments, filed Jan. 14, 2010).

broadband-related services as consumers experience them.<sup>60</sup> That includes not just broadband Internet access services, but also specialized broadband services offered by a wide range of providers. As AT&T explained in its *Consumer Information and Disclosure* comments, transparent disclosures about the terms and conditions of service are critical to create the conditions for genuine competition, because they enable consumers to make educated choices based on real differences among service providers. *Id.* at 5-11. Under this principle, providers of Internet access, VoIP, Internet search, and a multitude of other services, applications, and content can and should tell consumers, at an appropriate level of detail, about any material restrictions or limitations on their products so that they can make informed choices about which providers and products best meet their needs.

As we have also observed, however, broadband Internet access providers are doing on their own precisely what pro-regulation advocates are urging the Commission to do by regulatory fiat: they are disclosing relevant information to their consumers in clear and comprehensive terms.<sup>61</sup> Today's market-oriented approach preserves every provider's flexibility to adjust those disclosures to include the information most relevant to their particular services. Providers would lose that flexibility if they had to march through required regulatory categories that may be irrelevant to a given service. Furthermore, providers now have an incentive to compete on the basis of the clarity and comprehensiveness of their disclosures. The Commission can thus best promote consumer interests and encourage the positive trends that are already

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<sup>60</sup> Comments of AT&T Services Inc., *Consumer Information and Disclosure, Truth-in-Billing and Billing Format, IP-Enabled Services*, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36 (filed Oct. 13, 2009) (“*AT&T Consumer Information and Disclosure Comments*”).

<sup>61</sup> See *id.* at 13-25; *AT&T Net Neutrality Comments* at 188-90; *AT&T Net Neutrality Reply Comments* at 127-28.

developing in the industry by promoting *best practices* for transparent disclosures while avoiding detailed *rules*.

The *Notice* also seeks comment on whether the Commission should “[r]equire providers to disclose information sufficient to enable ... third parties[] and the Commission to evaluate and report on specialized services.” *Notice* at 3. AT&T would have no objection to general, high-level information requests by the Commission concerning the types of service that providers are offering, so long as those requests are made evenhandedly to all providers of specialized services.<sup>62</sup> As we have explained, however, AT&T *would* object to any effort to force providers to divulge the technical details of their services to the public at large when consumers do not need to know those details in order to understand the nature and limitations of the services they are purchasing. Compelled disclosure of such details would be both unnecessary to protect consumers and potentially destructive, because it would facilitate network manipulation by third parties. *See AT&T Net Neutrality Comments* at 193-94.

## **II. THE COMMISSION SHOULD MAINTAIN ITS EXCEPTIONALLY SUCCESSFUL HANDS-OFF APPROACH TO WIRELESS BROADBAND SERVICES.**

In the spring of 2008, CNET News described the wireless industry as the “poster child for competition.”<sup>63</sup> Just two short years later, that assessment seems decidedly understated. Whereas 51 percent of American consumers in May 2008 could choose among *at least three* wireless broadband providers, that figure had skyrocketed to 76 percent by November 2009.<sup>64</sup>

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<sup>62</sup> *See AT&T Net Neutrality Comments* at 195-96; *AT&T Consumer Information and Disclosure Comments* at 33-36.

<sup>63</sup> Marguerite Reardon, *Is the Verizon-Alltel deal good for consumers?*, CNET News, June 6, 2008, [http://news.cnet.com/8301-10784\\_3-9961488-7.html](http://news.cnet.com/8301-10784_3-9961488-7.html).

<sup>64</sup> Fourteenth Report, *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*, FCC 10-87, WT Docket No. 09-66, ¶¶ 4, 47 (rel. May 20, 2010) (“*Fourteenth Mobile Wireless Competition Report*”).

And it is undoubtedly even higher today, particularly now that Clearwire offers wireless broadband service to approximately 66 million people and expects to cover 120 million by year's end.<sup>65</sup> Moreover, each of the major wireless providers offers a wide range of devices, and most—including AT&T—permit consumers to bring their own compatible devices to the network as well. Indeed, there were over 630 handset options in the United States as of May 2010.<sup>66</sup> And these devices can be used to access an enormous range of content and applications over the Internet, including the more than 240,000 applications that have been developed specifically for the wireless marketplace.<sup>67</sup> This intense competition has led to lower prices, massive capital investment, and fast-paced innovation, all of which produce enormous consumer benefits.

Only one conclusion can follow: the wireless broadband marketplace presents no regulatory problem to solve. If the Commission nonetheless reversed course and subjected that marketplace to “neutrality” rules for the first time—such as the “any device” or “any application” mandates contemplated in the *Notice*—it would succeed only in harming consumers and economic growth.

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<sup>65</sup> See Clearwire, Press Release, *Clearwire Brings Strength of CLEAR4G to Pittsburgh*, Sept. 30, 2010, <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1477463&highlight=> (explaining that Clearwire is currently available to approximately 66 million people); Clearwire, Press Release, *Clearwire Reports Strong Second Quarter 2010 Results*, Aug. 4, 2010, <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1456460&highlight=> (explaining that Clearwire expects to cover up to 120 million people by the end of 2010).

<sup>66</sup> Steve Largent, CTIA President & CEO, CTIA blog, *Wireless Industry: Continues to be #1 for Innovation, Competition and Investment*, May 18, 2010, <http://www.ctia.org/blog/index.cfm/2010/5/18/Wireless-Industry-Continues-to-be-1-for-Innovation-Competition-and-Investment> (“*CTIA Wireless Competition Blog Post*”).

<sup>67</sup> *Id.*; see also CTIA, *The Wireless Industry Overview* at 9 (May 12, 2010), [http://files.ctia.org/pdf/051210\\_-\\_Wireless\\_Overview\\_FINAL.pdf](http://files.ctia.org/pdf/051210_-_Wireless_Overview_FINAL.pdf) (“*CTIA Wireless Industry Overview*”) (CTIA’s research demonstrates that the current number of available applications, 240,000, more than doubled over the course of six months).

In prior submissions, AT&T has discussed, in detail and with supporting expert declarations, the irrationality and technological infeasibility of imposing “neutrality” obligations on wireless broadband platforms.<sup>68</sup> AT&T has also explained that such wireless obligations would be unlawful even if the Commission had legal authority to impose corresponding “neutrality” obligations on wired Internet access platforms.<sup>69</sup> The Commission should accordingly reject wireless net neutrality proposals and focus instead on real solutions to real problems—in particular, bringing to market an additional 500 MHz of spectrum to address the looming spectrum crisis that threatens to place a chokehold on wireless broadband networks. Nonetheless, we address these wireless neutrality issues again in response to the questions raised in the *Notice*.

Three overarching policy concerns warrant emphasis at the outset. First, wireless broadband operators face spectrum constraints and unique operational and network-engineering challenges with no counterpart in the wireline broadband world. Wireless operators must meet those challenges, on a second-by-second basis, in an exceptionally dynamic technological and commercial environment, characterized by (among other things) an impending and complex transition from 3G to 4G networks. Vaguely defined “neutrality” obligations, accompanied by the threat of uncertain regulatory liability several years hence, would hamstring network engineers as they confront these constantly shifting challenges. Second, from a commercial perspective, wireless Internet access services have developed differently from their wireline

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<sup>68</sup> See *AT&T Net Neutrality Comments* at 140-83; see generally Jeffrey H. Reed & Nishith D. Tripathi, *The Application of Network Neutrality Regulations to Wireless Systems: A Mission Infeasible* (filed as Exhibit 2 to AT&T Net Neutrality Comments, filed Jan. 14, 2010) (“*Reed & Tripathi Paper*”); *AT&T Net Neutrality Reply Comments* at 65-102; Jeffrey Reed & Nishith Tripathi, *Wireless Net Neutrality Regulation: A Response to Afflerbach and DeHaven* (filed as Exhibit 1 to AT&T Net Neutrality Reply Comments, filed Apr. 26, 2010) (“*Second Reed & Tripathi Paper*”).

<sup>69</sup> See, e.g., *AT&T Net Neutrality Comments* at 231-35; *AT&T Title II Comments* at 112-14.

counterparts from the beginning, with extensive partnering among wireless network providers, equipment manufacturers, and application providers. Subjecting the wireless industry to “any device” or “any application” mandates would undermine many existing business arrangements that benefit consumers today.

Third, the Commission itself has recognized that open access requirements, such as those imposed uniquely on the C block in the upper 700 MHz band, could have “unanticipated drawbacks.”<sup>70</sup> It thus properly decided to “allow both the Commission and the industry to observe the real-world effects of such a requirement” instead of extending such requirements more broadly.<sup>71</sup> No one has presented any reason why the Commission should scrap this experiment before it has even begun, but that is precisely what the Commission would do if it now imposed open access requirements on the entire industry. As discussed below, that reversal would be arbitrary and unlawful.

#### **A. Devices.**

The *Notice* seeks comment on a proposal “to require mobile providers to allow any non-harmful device to connect to their network, subject to reasonable network management.” *Notice* at 5. Such regulatory intervention would be unnecessary and counterproductive.

##### **1. There Is No Need for Intervention.**

As a preliminary matter, no one has identified any market failure that might conceivably justify the significant risks of such regulation. Without regulatory intervention, the marketplace for broadband wireless devices is flourishing. Today, U.S. consumers can choose from among

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<sup>70</sup> *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, 22 FCC Rcd 15289, ¶ 205 (2007).

<sup>71</sup> *Id.*

more than 630 handset options.<sup>72</sup> AT&T alone offers its customers a choice of more than 100 different wireless handsets, over which consumers can run every major operating system, including Android, BlackBerry, Palm OS, iPhone OS, Windows Mobile, and the open source Symbian and Java systems.<sup>73</sup> AT&T has also certified for use on its network over 850 wireless devices through its vendor-friendly certification process.<sup>74</sup> U.S. wireless providers have worked with manufacturers to introduce some of the most advanced smartphones in the world, including 67 introduced in 2008 and 2009.<sup>75</sup> Consumers also can choose from a variety of other wireless devices, such as netbooks, eReaders, tablet computers, wireless laptops, and more.

Not surprisingly, consumers are availing themselves of this rich array of choices. As of May 2010, there were more than 257 million web-capable devices on U.S. wireless networks and over 50 million smartphones and PDAs.<sup>76</sup> By mid-2009, more than 10.8 million aircards, wireless modems, and netbooks were in use in the United States.<sup>77</sup>

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<sup>72</sup> *CTIA Wireless Competition Blog Post.*

<sup>73</sup> See AT&T, *Description of AT&T's Practices to Encourage Choice and Innovation in Wireless Devices and Applications*, at 3 (attached as Exhibit 3 to *AT&T Net Neutrality Reply Comments*, filed Apr. 26, 2010) (“*Wireless Devices and Applications Appendix*”).

<sup>74</sup> AT&T, Press Release, *AT&T Adds Nearly 900,000 Connected Devices*, *supra* note 17 (“AT&T has certified more than 850 specialty consumer and machine-to-machine devices—such as eReaders, netbooks, digital photo frames, personal navigation devices, home security monitoring and smart grid devices—for use on its wireless network.”).

<sup>75</sup> See *Fourteenth Mobile Wireless Competition Report* ¶ 4; see also Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA, to Marlene Dortch, Secretary, FCC, GN Docket No. 09-191, WC Docket No. 07-52, Attachment at 7 (filed Feb. 5, 2010) (“*CTIA Feb. 5 Ex Parte*”).

<sup>76</sup> *CTIA Wireless Competition Blog Post.*

<sup>77</sup> Reply Comments of CTIA – The Wireless Association, *Fostering Innovation and Investment in the Wireless Communications Market, A National Broadband Plan For Our Future*, GN Docket Nos. 09-157 & 09-51, at 7 (filed Nov. 5, 2009) (citing *CTIA's Wireless Industry Indices: Semi-Annual Data Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry, Mid-Year 2009 Results* at 10).

These devices offer consumers a broad and evolving range of capabilities, foiling every dystopian prediction about this industry. Tim Wu and other net neutrality advocates routinely predicted several years ago that, absent a regulatory mandate, wireless operators would never support options such as Wi-Fi-, VoIP-, or Bluetooth-enabled smartphones and tethering-capable devices.<sup>78</sup> Similarly, Skype told the Commission that “manufacturers are poised to equip handsets with Skype features but are reluctant to do so if such features threaten wireless carriers’ established business model.”<sup>79</sup> Wu and Skype were wrong in describing market dynamics even at the time,<sup>80</sup> and they were even more wrong in predicting future developments. Market forces alone have driven providers to work with manufacturers to support *all* of those options.<sup>81</sup> In fact,

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<sup>78</sup> See, e.g., Tim Wu, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband*, New America Foundation Wireless Future Program, at 24 (Feb. 2007), [http://www.newamerica.net/files/WorkingPaper17\\_WirelessNetNeutrality\\_Wu.pdf](http://www.newamerica.net/files/WorkingPaper17_WirelessNetNeutrality_Wu.pdf) (Wi-Fi, VoIP, Bluetooth); see Comments of the Electronic Frontier Foundation, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 28-29 (filed Jan. 14, 2010) (tethering); *Free Press Net Neutrality Comments* at 123-24 (same). While providers have responded to consumer demand to support tethering, that issue in fact has no logical bearing on a consumer’s “ability to access content on the Internet or how ‘open’ the Internet is to that customer.” Comments of CTIA – The Wireless Association, *Preserving the Open Internet, Broadband Industry Practices*, GN Docket 09-191, WC Docket 07-52, at 10 (filed Jan. 14, 2010).

<sup>79</sup> Petition of Skype Communications S.A.R.L. to Confirm a Consumer’s Right to Use Internet Communications Software and Attach Devices to Wireless Networks, RM-11361, at 13 (filed Feb. 20, 2007).

<sup>80</sup> See Comments of AT&T Inc. in Opp. to *Skype Pet. to Confirm a Consumer’s Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, RM-11361, at 3 (Apr. 30, 2007) (“AT&T sells several handsets with WiFi capability”).

<sup>81</sup> See *AT&T Net Neutrality Reply Comments* at 75; see generally *CTIA Feb. 5 Ex Parte*; Letter from Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA, to Marlene Dortch, Secretary, FCC, WT Docket No. 09-66, GN Docket Nos. 09-157 & 09-51 (filed Feb. 12, 2010) (“*CTIA Feb. 12 Competition Ex Parte*”); *AT&T Net Neutrality Comments* at 155; Comments of T-Mobile USA, Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 5 (filed Jan. 14, 2010) (“*T-Mobile Net Neutrality Comments*”); *Verizon Net Neutrality Comments* at 25-27. Indeed, Verizon Wireless announced earlier this year that it will support Skype’s Internet calling service on nine of

every major wireless provider now offers Wi-Fi-enabled handsets.<sup>82</sup> Currently, AT&T alone offers sixteen such handsets and seven Wi-Fi-enabled netbooks.<sup>83</sup> Further, every major wireless provider offers handsets that support VoIP over Wi-Fi and/or 3G services.<sup>84</sup> Indeed, all major providers, including AT&T, now allow consumers to bring their own devices that are compatible with their respective networks, and they all offer modified service offerings for such arrangements.

Consumers that seek only access to the Internet (rather than a handset with voice and data capabilities) have a similar range of options. These include provider-offered netbooks and aircards, which provide full web-browsing capabilities and access to the applications, services, and content of the consumer's choice. And they also include recently released and soon-to-be-launched devices such as the Apple iPad, Blackberry PlayBook, HP Slate, Samsung Galaxy, and Dell Streak.

Finally, consumers and businesses can "attach" a wide range of special-purpose devices that incorporate wireless broadband Internet connectivity in various ways. Many of these are already very popular with consumers, such as the Barnes & Noble Nook, Amazon Kindle, and

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Verizon's 3G smartphones. See Julianne Pepitone, *Verizon smartphones to get Skype app*, CNNMoney.com, Feb. 16, 2010, [http://money.cnn.com/2010/02/16/technology/verizon\\_skype/](http://money.cnn.com/2010/02/16/technology/verizon_skype/).

<sup>82</sup> From 2008 to 2009, the number of phones shipped with Wi-Fi capabilities increased from 92.5 million to 139.3 million, and research indicates that 90 percent of all smartphones will be equipped with Wi-Fi by 2014. Stephen Lawson, *Wi-Fi spreading fast among mobile phones*, InfoWorld, Mar. 23, 2010, [http://www.infoworld.com/d/networking/wi-fi-spreading-fast-among-mobile-phones-467?source=rss\\_infoworld\\_news](http://www.infoworld.com/d/networking/wi-fi-spreading-fast-among-mobile-phones-467?source=rss_infoworld_news) (reporting the number will exceed 500 million phones by 2014).

<sup>83</sup> AT&T, *Cell Phones and Devices*, <http://www.wireless.att.com/cell-phone-service/cellphones/index.jsp>.

<sup>84</sup> See, e.g., Nathan Eddy, *Updated Skype iPhone App Boast 3G Calling Ability*, eWeek, May 31, 2010, <http://www.eweek.com/c/a/Midmarket/Updated-Skype-iPhone-App-Boasts-3G-Calling-Ability-665813/>; Brad Linder, *Verizon to allow Skype VoIP calls over 3G*, Downloadsquad.com, Feb. 16, 2010, <http://www.downloadsquad.com/2010/02/16/verizon-to-allow-skype-voip-calls-over-3g/>.

Spring Design's Alex,<sup>85</sup> as well as portable navigation devices such as the Garmin nüvi 1690, which supports Google Local search and certain news-related feeds and listings.<sup>86</sup> In addition, providers support a wide variety of wireless machine-to-machine ("M2M") devices for both businesses and consumers, such as home security systems, truck fleet monitoring, networked picture frames, remotely-monitored vending machines, smart energy meters, inventory tracking, and medical diagnostics and tracking. *See AT&T Net Neutrality Comments* at 153.

Wireless providers have every incentive to encourage the use of a wide variety of devices on their networks, lest they lose business to other wireless carriers that permit attachment of the devices that consumers prefer. Indeed, carriers actively work with device manufacturers to certify third-party wireless devices for use on their networks. AT&T, for example, has always worked closely with device manufacturers to facilitate operation of their independent devices over AT&T's network, performing extensive compatibility testing and providing resources and support to resolve any issues. AT&T's Emerging Device Organization<sup>87</sup> offers "comprehensive step-by-step information on the processes, technical guidelines, and other requirements for new devices intended to be used on AT&T's network." *Wireless Devices and Applications Appendix* at 6. In connection with that program, AT&T has developed "systems that allow devices to be activated 'out of the box,'" so that they can be used by the customer without further intervention from AT&T or any third party. *Id.* In addition, AT&T earlier this year announced a partnership with Ericsson to provide robust assistance to developers seeking to build and integrate emerging M2M devices with AT&T's network; it also offers innovative billing and customer support

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<sup>85</sup> See generally Smedley, *Storming the Kindle Kingdom*, *supra*.

<sup>86</sup> Garmin, nüvi 1690, <http://www8.garmin.com/buzz/1690/>.

<sup>87</sup> See AT&T, Emerging Device Organization, <http://www.att.com/edo>.

systems for M2M products.<sup>88</sup> Through these two programs,<sup>89</sup> AT&T has certified devices running the gamut from Internet-enabled phones, to laptops and netbooks, to eReaders and personal navigation devices, to a whole range of M2M devices.<sup>90</sup> Other providers, such as Verizon Wireless, likewise have launched programs to help developers certify third-party devices for use on their networks. *See, e.g., Verizon Net Neutrality Comments* at 28. Against this backdrop of robust investment, innovation, and competition, it is hard to fathom how prescriptive wireless net neutrality regulations would “improve” this exceptionally well-functioning marketplace.

## 2. Extreme “Any Device” Proposals Would Harm Consumers.

As discussed, most providers already offer “bring-your-own-device” options, subject to provider certification. That market reality, by itself, forecloses any claim that a compulsory “any device” rule is necessary to achieve any public benefit. On the other side of the policy balance, regulatory intervention inevitably imposes costs, including the costs of regulatory uncertainty

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<sup>88</sup> AT&T, Press Release, *AT&T and Ericsson to Expand 3G Ecosystem with AT&T Connection Kit for Device Developers*, Mar. 23, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30671>.

<sup>89</sup> AT&T recently announced that it will open Innovation Centers in Palo Alto, California, Plano, Texas, and Ra’anana, Israel. The centers will provide an environment for developers to collaborate with AT&T and its innovators, host suppliers, and other developers. AT&T will work with Alcatel-Lucent, Amdocs, and Ericsson to locate the centers, and Cisco and Juniper networks will participate as infrastructure providers. The centers are designed to “enhance collaboration and dramatically accelerate the velocity of innovation, taking ideas from concept to reality in mere months as opposed to years.” AT&T, Press Release, *AT&T Selects Palo Alto, Plano and Israel for Innovation Center Locations; Ramps Participant Selection as Initial Projects Get Underway*, Oct. 7, 2010, <http://www.att.com/gen/press-room?pid=18635&cdvn=news&newsarticleid=31270&mapcode=corporate>.

<sup>90</sup> *See Wireless Devices and Applications Appendix* at 1.

and unintended consequences. For those reasons alone, the Commission need not and should not adopt any form of an “any device” rule.<sup>91</sup>

Some parties—such as the New America Foundation, whose radical proposal is cited in the *Notice* (at 5 n.27)—would go so far as to ban provider-partnered devices and even provider-based *certification* of devices. These parties would, in effect, *force* consumers to supply their own end-user devices as they typically do in connection with wireline Internet access.<sup>92</sup> That proposal would dampen investment, reduce innovation, diminish quality of service, and destroy consumer value.<sup>93</sup>

In the wireless marketplace, collaboration between service providers and device manufacturers has always yielded tremendous benefits for consumers. Service providers and manufacturers work together in developing network capabilities, and then collaborate further to optimize devices to take advantage of the provider’s specific network features and upgrades.<sup>94</sup> Network providers also often work with device makers to adapt their networks to support new

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<sup>91</sup> The Commission asks whether providers should be required to outsource their certification activities to “independent authorized test centers.” *Notice* at 5. The short answer, as detailed in our prior submissions, is that such compulsory outsourcing would be as unworkable and harmful as it is unnecessary to serve any conceivable consumer interest. *See Second Reed and Tripathi Paper* at 12-16.

<sup>92</sup> *See generally Afflerbach & DeHaven Paper.*

<sup>93</sup> Even many net neutrality advocates shy away from this position, recognizing that it would harm consumers by homogenizing this uniquely diverse marketplace. Google, for example, has acknowledged that there is little benefit to “turn[ing] wireless carriers into operators of ‘dumb pipes’ that only conduct bytes between a customer’s device and the Internet.” Scott Morrison, *Google CEO Seeks to Assure Wireless Carriers*, Wall St. J., Feb. 16, 2010, <http://online.wsj.com/article/BT-CO-20100216-711871.html> (citing statement of Google CEO Eric Schmidt).

<sup>94</sup> *See, e.g., AT&T Net Neutrality Comments* at 153; *AT&T Net Neutrality Reply Comments* at 69-70; *Verizon Net Neutrality Comments* at 28. *See also Second Reed & Tripathi Paper* at 12-16 (explaining that carrier-specific testing is critical to ensuring, *inter alia*, interoperability with different types of network equipment, software stability and reliability, and device performance); *id.* at 5, 12-16 (detailing the extensive, complex, and labor-intensive real-world testing process employed by wireless providers).

innovations on new devices. *See Second Reed & Tripathi Paper* at 12-16. As a result, consumers using partnered devices often enjoy enhanced, network-specific capabilities that are not available on independent devices, even though the latter are “compatible” with the network.

*Non-partnered* devices compatible with the basic network standard—*i.e.*, in AT&T’s case, any GSM-compatible device—can generally provide basic voice and data service. But such devices will not be optimized for the unique technological capabilities of a service provider’s *specific* network. For example, GSM is not a comprehensive suite of standards; it is simply a set of minimum requirements. There is no standard at all for many network functions (including optional or add-on functions), and even when a standard is in place, providers have extensive flexibility in how they implement it.<sup>95</sup> Moreover, while a basic GSM-compatible device will *work* over a GSM network, it will present different operational challenges on different GSM networks, and those challenges, if unresolved, can impair performance. In 2009 alone, AT&T’s device-certification process identified approximately 1200 significant performance or compatibility issues in *GSM-compatible devices*—issues that had to be resolved before those theoretically compatible devices could be effectively and safely used on AT&T’s network. *See AT&T Net Neutrality Reply Comments* at 88.

Partnered devices go a critical step further, tailoring their capabilities to the network’s from the start. Such devices thus offer capabilities that are simply unavailable in more generic devices, no matter how “compatible” they may be. Close collaboration between the device and the network is necessary even for simple functions that are not covered by any GSM “standard,”

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<sup>95</sup> *See Second Reed & Tripathi Paper* at 5, 9; *AT&T Net Neutrality Reply Comments* at 86-88. In addition, many providers, like AT&T, provide service over a network made up of several different legacy networks that were joined together as a result of consolidations in the industry. Those networks utilize a broad mix of technologies, architectures, uses, and local radio environments. *See AT&T Net Neutrality Reply Comments* at 88; *Second Reed & Tripathi Paper* at 5.

such as voicemail notification or a handset's means of choosing among available systems within a network. *See id.* at 87-88. For example, AT&T's "visual voicemail" iPhone feature was the result of intensive, network-based collaboration between Apple and AT&T. *Id.* at 90. Other GSM-compatible devices will thus lack this feature.

The *Notice* suggests (at 5) that deployment of LTE technology might resolve some of these challenges by facilitating interoperability among networks. That is true only in the general sense that LTE will bridge the existing divide between GSM and CDMA, allowing for the development of multi-network phones. Like GSM, however, LTE will be a mere baseline standard. Wireless providers will still need to optimize their networks beyond that basic standard, and device manufacturers will still wish to provide special features that can be supported only through close coordination with individual networks. The Commission should welcome such innovation and differentiation-based competition, not forbid it, as the New America Foundation's proposal would do.

Even when they allow subscribers to bring their own non-partnered devices to the network, as all major wireless providers now do, each network provider still plays an essential role in certifying those devices. "Before a handset can be cleared for access to the mobile network, the operator has to ensure that it's going to be well behaved under the range of circumstances that affect other users and the network."<sup>96</sup> By contrast, uncertified devices can produce "noise" on the network, impairing service for all network users, and not just the user of

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<sup>96</sup> Richard Bennett, Information Technology & Innovation Foundation, *Going Mobile: Technology and Policy Issues in the Mobile Internet*, at 42 (Mar. 2010), [http://www.itif.org/files/100302\\_GoingMobile.pdf](http://www.itif.org/files/100302_GoingMobile.pdf) ("Bennett, *Going Mobile*") ("The mobile network ... endpoint has to perform a variety of power control, modulation, and coding decisions that go far beyond the capabilities of IP.... So the device freedom notion must be leavened with a great deal of consideration for the responsibility invested in the handset by the wireless network for management and effective operation of the overall network.").

the uncertified device in question.<sup>97</sup> Also, customers naturally turn to their service providers for customer support, and providers could not respond to such help requests for non-certified devices. Customers would be left without a workable customer-assistance mechanism, a scenario that hardly advances the Administration’s goal of expanding wireless broadband usage. Yet, this is precisely the result that would follow from New America Foundation’s proposal.<sup>98</sup>

The Commission has asked whether usage-based data pricing could “mitigate concerns about congestion of scarce network capacity by third-party devices.” *Notice* at 5. We discuss usage-based pricing in detail in the Applications section below. *See* Section II.B.2.a, *infra*. But the short answer, with respect to devices no less than applications, is that usage-based pricing is no panacea.

To begin with, a rogue device could intentionally or unintentionally consume so much shared bandwidth that it is impossible to accommodate on the network under any service plan. In addition, the challenges posed by non-certified devices extend far beyond excessive bandwidth consumption. Some independent devices simply may not operate well, leaving customers frustrated and providers unable to deliver the service experience they hope to offer. Or the problem may lie in how the device interferes with other devices on the network. The use of signal boosters, or signal repeaters, to increase cellular phone signal coverage in rural or

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<sup>97</sup> Customers are also likely to be frustrated by lower *quality* devices, because network provider certification typically screens not only for standards compliance and compatibility, but also for quality. Eliminating the provider screening process means more devices of poorer quality will be operating on the network at any given time. *See Second Reed & Tripathi Paper* at 15-16.

<sup>98</sup> *See Afflerbach & DeHaven Paper* at 39 (explaining that “[p]roblems with hardware failure, operating system, and device applications would not be the responsibility of the carrier”).

outlying locations illustrates this problem.<sup>99</sup> Unlicensed and improperly installed signal boosters “can interfere with network operations and cause interference to a range of communication services.”<sup>100</sup> For example, the use of signal boosters on boats off the coast of Southern Florida has posed particularly severe challenges to AT&T’s network. In one incident, a single signal booster interfered with six AT&T towers, causing 2,795 dropped calls and 81,000 blocked or impaired calls.<sup>101</sup>

Finally, as discussed, a mandatory “any device” framework that bars provider-supplied devices would also increase consumer costs by eliminating the common practice under which manufacturers offer handset discounts in exchange for term commitments. That cost increase would *suppress* consumer demand and broadband adoption, especially among low-income populations that benefit most from such discounts. *See* pages 11-12, *supra*; *see also* *Second Reed & Tripathi Paper* at 5, 10. This is hardly a recipe for making broadband available to all Americans as Congress intended.

## **B. Applications.**

The marketplace for wireless applications is highly dynamic, and consumers can readily access the applications and content of their choice. Here, too, Commission intervention as proposed in the *Notice* would do far more harm than good.

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<sup>99</sup> Public Notice, *Wireless Telecommunications Bureau Seeks Comment on Petitions Regarding the Use of Signal Boosters and Other Signal Amplification Techniques Used with Wireless Services*, DA 10-14 (rel. Jan. 6, 2010).

<sup>100</sup> *Id.*

<sup>101</sup> *See* Comments of AT&T, Inc., *Petitions Regarding the Use of Signal Boosters and Other Signal Amplification Techniques Used with Wireless Service*, WT Docket No. 10-4, at 31 (filed Feb. 5, 2010).

## 1. There Is No Need for Intervention.

The marketplace for wireless broadband applications is intensely competitive and rapidly evolving.<sup>102</sup> Customers already have access to “more than 240,000 apps from 7 different stores on 7 different platforms.”<sup>103</sup> Over \$4.2 billion in mobile applications were sold in 2009 alone, and, according to CTIA, “consumers are expected to spend over \$6.2 billion in mobile app stores” in 2010.<sup>104</sup> Nonetheless, *free* downloads are still predicted to account for 82 percent of all downloads this year.<sup>105</sup>

Providers compete vigorously on the basis of applications, and every major wireless broadband provider actively works with application developers to encourage the creation of applications for its network. AT&T, for example, currently works with over 20,000 application developers in its devCentral program, which offers extensive information, tools, software kits, and online assistance to enable the design of applications that function well over AT&T’s network.<sup>106</sup> AT&T has also announced several initiatives to offer developers live technical

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<sup>102</sup> Jason Ankeny, *Android Market Tops 80,000 Apps – Blackberry App World at Just 10,000*, FierceDeveloper, Sept. 12, 2010, <http://www.fiercedeveloper.com/story/android-market-tops-80-000-apps-blackberry-app-world-just-10-000/2010-09-12>. See also Clint Boulton, *Verizon V Cast Apps Rival Google Android Market*, eWeek, Sept. 21, 2010, <http://www.eweek.com/c/a/Application-Development/Verizon-V-Cast-Apps-Rivals-Google-Android-Market-514485/> (reporting Verizon Wireless’s entry into the applications market with its V Cast Apps application store).

<sup>103</sup> *CTIA Wireless Competition Blog Post*. See also *CTIA Wireless Industry Overview* at 9 (CTIA’s research demonstrates that the current number of available applications, 240,000, more than doubled over the course of six months).

<sup>104</sup> *Mobile Broadband: A 21st Century Plan for U.S. Competitiveness, Innovation and Job Creation*, Prepared Remarks of Chairman Julius Genachowski, FCC, New America Foundation, Washington, D.C., at 3 (Feb. 24, 2010), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296490A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296490A1.pdf) (“Genachowski, *Mobile Broadband*”); *CTIA Wireless Competition Blog Post*.

<sup>105</sup> Gartner, Press Release, *Gartner Says Consumers Will Spend \$6.2 Billion in Mobile Application Stores in 2010*, Jan. 18, 2010, <http://www.gartner.com/it/page.jsp?id=1282413>.

<sup>106</sup> *AT&T Net Neutrality Reply Comments* at 67-68. See also *Wireless Devices and Applications Appendix* at 1-2, 10-11. AT&T has also undertaken initiatives to make it easier for

support and help them test their applications before launch.<sup>107</sup> It recently released a new and improved Developer Web Site that responds to developer-provided feedback and offers developers enhanced features to create and refine applications for various platforms.<sup>108</sup> And AT&T offers the AT&T M2M Developer Kit, a program to assist the development of applications for the machine-to-machine space.<sup>109</sup>

Verizon, Sprint, and T-Mobile offer similar programs to help developers in deploying new applications. *See AT&T Net Neutrality Reply Comments* at 68. Verizon, for instance, has launched an “Open Development program,” and has assisted in standards development and hosted a developer’s conference. *Verizon Net Neutrality Comments* at 28. Sprint similarly has held several developers’ conferences and facilitates developers’ ability to work with its application programming interfaces.<sup>110</sup> And T-Mobile is highly involved with the Open Handset Alliance’s Android platform. *T-Mobile Net Neutrality Comments* at 11-12. Moreover, earlier this year, 24 mobile operators in the United States (including AT&T, Verizon Wireless, and Sprint) and from across the globe (including providers in Europe, Russia, China, Japan, and

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businesses to develop and deploy the applications they need in an enterprise environment. For example, “AT&T offers the ‘AT&T Workbench for iPhone,’ a development tool that helps businesses easily provision, deploy, and control enterprise web applications for work in a highly-secure, reliable, and manageable fashion.” AT&T, Press Release, *New AT&T Workbench Available for iPhone*, Mar. 23, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30664>.

<sup>107</sup> *See AT&T Net Neutrality Comments* at 192-93; *AT&T Net Neutrality Reply Comments* at 67-68; AT&T, Press Release, *AT&T Launches Major Initiative to Bring “Apps to All,”* Jan. 6, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30353>; *Wireless Devices and Applications Appendix* at 12, 15.

<sup>108</sup> *See* AT&T, Developer Program, [http://developer.att.com/developer/tier1page.jsp?passedItemId=100006&\\_requestid=8547](http://developer.att.com/developer/tier1page.jsp?passedItemId=100006&_requestid=8547).

<sup>109</sup> *See* AT&T, Connection Kit for Device Developers, <https://att.m2m.com/devkit/>.

<sup>110</sup> Comments of Sprint Nextel Corp., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 7 (filed Jan. 14, 2010).

South America) formed an alliance that will establish a unified, open platform to facilitate development of even more applications.<sup>111</sup> Known as the Wholesale Applications Community, this group’s mission is to “provide a simple route to market for developers and provide access to the latest and widest range of innovative applications and services to as many customers as possible worldwide.”<sup>112</sup>

As all of this activity illustrates, wireless providers know that they can win customers only by offering a robust mix of applications—and that if they reject, limit, or compromise useful applications, they will undermine the value of their service and drive customers to one of many alternatives. Despite this pro-consumer market dynamic, some pro-regulation advocates argue that, absent regulation, wireless providers and their application-store partners may resist “applications that compete with services the provider offers.” *Notice* at 5. There is no empirical foundation for that concern. For example, although some advocates had predicted that wireless providers would never permit VoIP applications, *see* pages 43-44, *supra*, every major wireless provider allows the use of VoIP over Wi-Fi and 3G services. Indeed, VoIP applications are permitted across AT&T’s diverse line of handsets, including the iPhone.<sup>113</sup> Every major wireless provider also permits the use of independent SMS applications over their networks, as well as

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<sup>111</sup> Adrian Kerr, *Mobile Operators Join Forces to Develop Open Apps Platform*, Wall St. J., Feb. 15, 2010, <http://online.wsj.com/article/SB10001424052748704431404575066732629109538.html>.

<sup>112</sup> Wholesale Applications Community, <http://www.wholesaleappcommunity.com/default.aspx>.

<sup>113</sup> *See* Letter from James W. Cicconi, AT&T, to Ruth Milkman, Chief, Wireless Telecommunications Bureau, RM-11361 and RM-11497, DA 09-1737, at 7-8 (filed Aug. 21, 2009) (“*AT&T Letter to Milkman*”); Nathan Eddy, *Updated Skype iPhone App Boast 3G Calling Ability*, eWeek, May 31, 2010, <http://www.eweek.com/c/a/Midmarket/Updated-Skype-iPhone-App-Boasts-3G-Calling-Ability-665813/>.

countless applications that compete with their video services.<sup>114</sup> And AT&T, like many other providers, allows its customers to access applications that compete with other services that it provides, including GPS navigation and directory-listing services.<sup>115</sup>

To be sure, service providers and manufacturers sometimes must work with application providers to achieve network compatibility and ensure protection of users' security and privacy. But providers or their application-store partners hardly ever reject applications outright. When an application is rejected due to excessive bandwidth consumption or other reasons, the wireless provider (and/or the device manufacturer) typically works with the application provider to develop a means of mitigating the potential harm from the application. For example, AT&T, in consultation with Apple, has helped a number of application providers redesign iPhone video-streaming applications that, in their initial iterations, consumed an enormous amount of network resources. *See, e.g., AT&T Letter to Milkman at 5.*

AT&T's cooperation with MobiTV illustrates this process at work. There, AT&T worked with the application developer to resolve network-congestion problems and ensure that the application could deliver (1) live video over Wi-Fi and (2) live audio and still photos over AT&T's 3G network. *See id.* AT&T has also worked with the developer of an application that circumvented AT&T's Wi-Fi terms of service to modify the application so that it was compliant. *Id.* at 11. And the developer of an SMS text-messaging application was able to modify the program after learning from AT&T that it had sent garbled duplicate messages to non-iPhone users. *Id.* In short, the market is working quite well without any need for prescriptive regulation.

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<sup>114</sup> For instance, as discussed below, AT&T has worked with both MobiTV and Slingbox so that their video applications could be used over AT&T's network. Likewise, providers facilitate access to a variety of video services such as Hulu and YouTube.

<sup>115</sup> *See AT&T Letter to Milkman at 14-15.*

## **2. Intervention Would Harm Mobile Wireless Broadband Consumers.**

As discussed, market forces alone have produced more access, more openness, and more choice in the wireless broadband marketplace. Precisely because that marketplace is already so open and diverse, the Commission has no reason to impose, for the first time, limitations on how broadband providers balance competing demands for available spectrum. And the Commission would only harm consumers if it sought to impose such limitations.

### **a. Mobile Wireless Broadband Providers Face Unique Challenges That Render Neutrality Obligations Particularly Harmful.**

To support the increasingly bandwidth-hungry applications that customers value, wireless network engineers need considerable discretion to manage their networks closely and to mediate among applications vying for shared bandwidth. And they need that discretion because, among other considerations, they face uniquely severe spectrum limitations.<sup>116</sup> As the Commission explained in the *National Broadband Plan*, “[t]he growth of wireless broadband will be constrained if government does not make spectrum available to enable network expansion and technology upgrades.”<sup>117</sup> Indeed, in the absence of sufficient spectrum, “scarcity of mobile broadband could mean higher prices, poor service quality, an inability of the U.S. to compete internationally, depressed demand and, ultimately, a drag on innovation.”<sup>118</sup>

Soaring demand for wireless broadband services is already testing the limits of available spectrum, and the problem grows more severe by the day as bandwidth-hungry services like

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<sup>116</sup> See *AT&T Net Neutrality Reply Comments* at 93-94 (refuting Afflerbach and DeHaven’s misconception that technological advances will somehow resolve the spectrum crisis).

<sup>117</sup> *National Broadband Plan* at 77.

<sup>118</sup> *Id.*

high-definition video surge in popularity.<sup>119</sup> Global wireless data traffic is doubling *annually*.<sup>120</sup> Cisco expects it to increase *39 times* between 2009 and 2014,<sup>121</sup> while Google predicts that mobile data and Internet traffic will increase *66 times* between 2008 and 2013.<sup>122</sup> Chairman Genachowski may have described this phenomenon most succinctly: “Mobile data usage is not just growing, it’s exploding.”<sup>123</sup>

To address these concerns, the *National Broadband Plan* recommends that the Commission free 500 MHz of spectrum for wireless broadband use. *See National Broadband Plan* at 75. While AT&T applauds this aspiration, the process of identifying, assigning, and clearing that spectrum will be a long and difficult one. In the Commission’s own words, it “takes quite some time from the beginning to [the] end of a Commission strategic spectrum

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<sup>119</sup> See Tim Conneally, *Report: Streaming video drove 72% global increase in mobile data consumption*, betanews, Feb. 8, 2010, <http://www.betanews.com/article/Report-Streamingvideo-drove-72-global-increase-in-mobile-data-consumption/1265650049> (“A new study from subscriber management company Allot Communications today says that worldwide mobile broadband consumption increased approximately 72% in just the second half of 2009.”).

<sup>120</sup> *Surfing hertz*, Fin. Times, Dec. 1, 2009, <http://uk.finance.yahoo.com/news/surfing-hertz-ftimes-96b9286f2ccc.html>.

<sup>121</sup> See Cisco, Press Release, *Annual Cisco Visual Networking Index Forecast Projects Global IP Traffic to Increase More Than Fourfold by 2014*, June 2, 2010, [http://newsroom.cisco.com/dlls/2010/prod\\_060210.html](http://newsroom.cisco.com/dlls/2010/prod_060210.html).

<sup>122</sup> Comments of Google, Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 78 (filed Jan. 14, 2010).

<sup>123</sup> Genachowski, *Mobile Broadband*, *supra*, at 4; see Bank of America Merrill Lynch, *Mobile Data: Traffic Jam Ahead?*, at 1, 6 (Feb. 2, 2010) (explaining that “[m]obile data traffic growth has surged in the past two years” and concluding that “[a]s data traffic grows and voice is increasingly carried as packet data, we see increasing need for data traffic prioritization (and a strong argument against heavy-handed net neutrality policies)”; Phil Bellaria, Director, Scenario Planning, & John Leibovitz, Deputy Chief, Wireless Telecommunications Bureau, *Message from the iPad: Heavy Traffic Ahead*, BlogBand, broadband.gov, Feb. 1, 2010, <http://blog.broadband.gov/?authorId=10475> (describing “a new round of reports of networks overburdened by a data flow they were not built to handle”).

reallocation process[.]”<sup>124</sup> and the Commission’s plan for doing so is designed to be implemented “over the *next decade*.”<sup>125</sup> Additionally, even over the longer term, after more spectrum is made available for broadband uses, providers serving “a population whose appetite for bandwidth doubles every year” will always, at some point, confront the hard limits of their spectrum.<sup>126</sup> But certainly *before* such spectrum is made available, the Commission cannot defensibly limit wireless providers’ flexibility to devise the best and most creative means of using the spectrum they have to meet escalating bandwidth demands. *See AT&T Net Neutrality Reply Comments* at 77-78.

One challenge that wireless providers face in meeting this growing demand is the fact that spectrum for wireless broadband is shared among users and uses. Available bandwidth can fluctuate based on the number of users located in particular cells and their dispersion within those cells at any given time. It can change based on the types and mix of devices in use at any time, or the types of applications in use. Interference from within and outside the network also can affect available spectrum. These and other factors threaten wireless providers’ ability to ensure a constant supply of sufficient bandwidth to provide continuous, high-quality data transmission for *all* broadband Internet access customers at all times. Providers can meet that objective only by closely managing spectral resources on a second-by-second basis. *See AT&T Net Neutrality Comments* at 157-58.

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<sup>124</sup> Genachowski, *Mobile Broadband*, *supra*, at 5, 7.

<sup>125</sup> *Id.* at 5 (emphasis added).

<sup>126</sup> Bennett, *Going Mobile* at 41. Mobile broadband usage is growing at a rate that outpaces every other broadband platform, and rapidly increasing smartphone usage generates 10 times the amount of traffic generated by average non-smartphone usage. *See* Ralph de la Vega, President/CEO, AT&T Mobility and Consumer Markets, Chairman of the Board, CTIA, *United States: Leading the Mobile Broadband Revolution*, CTIA Conference, at 18 (Mar. 23, 2010), [http://www.att.com/Common/merger/files/pdf/RDLV\\_CTIA.pdf](http://www.att.com/Common/merger/files/pdf/RDLV_CTIA.pdf).

Providers manage their scarce spectrum resources in several ways.<sup>127</sup> For example, they prioritize voice calls over data transmissions, ensuring—for example—that one customer’s streaming video does not disrupt another’s 911 call.<sup>128</sup> Some providers may also dynamically manage how much spectrum a given user can consume at a particular moment.<sup>129</sup> Next-generation wireless services will be equipped to perform even more sophisticated network management, which will be needed to address yet-unknown limitations and vulnerabilities associated with 4G networks. *See AT&T Net Neutrality Comments* at 169-70.

As noted above, contrary to the suggestion of some commenters, usage-based pricing—which AT&T and others have begun implementing for their wireless data plans—cannot replace the need for active network management.<sup>130</sup> Although a usage-based service plan may make

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<sup>127</sup> For instance, as Professor Reed and Dr. Tripathi have explained, differentiation based on scheduling algorithms can maximize network throughput by dedicating network resources to the user or channel with the best conditions at a given moment, and the result is improved average throughput across all applications and users. *See Reed & Tripathi Paper* at 43-44; *Second Reed & Tripathi Paper* at 22; *see also* Bennett, *Going Mobile, supra*, at 24-25 (“[S]chedul[ing] packets ... boost[s] the overall efficiency and effectiveness of the wireless network up to accepted wireline standards[.]”).

<sup>128</sup> *See AT&T Net Neutrality Comments* at 160 n.310; *AT&T Net Neutrality Reply Comments* at 95; *Second Reed & Tripathi Paper* at 23-25; *Reed & Tripathi Paper* § 4.3.

<sup>129</sup> Clearwire, for example, has enhanced its network-management system to enable it to dynamically limit the capacity consumed by high-usage customers who would otherwise overwhelm the network. Clearwire, *Clearwire’s Take on Network Management*, The Clear Blog, Oct. 8, 2010, <http://theclearblog.com/clearwire%E2%80%99s-take-on-network-management> (Clearwire’s algorithm for network management “reviews several factors including long and short-term usage, current network capacity, and network demand to determine if network management needs to be applied,” in which case “a few heavy users temporarily give up some speed during limited times of high demand so that everyone can have a good experience.”).

<sup>130</sup> *See* AT&T, Press Release, *AT&T Announces New Lower-Priced Wireless Data Plans to Make Mobile Internet More Affordable to More People*, June 2, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30854>; *Notice* at 4 (discussing Leap Wireless). That said, usage-based pricing is indeed an equitable way of allocating shared network costs among consumers—and of giving consumers incentives to act efficiently when causing those costs. Broadband use is quite heterogeneous among mobile users, and a very small percentage of wireless customers consumes a large percentage of the available bandwidth. A

some customers more mindful of their bandwidth consumption on a monthly basis, it may have little impact on a customer's decision to consume a certain amount of bandwidth at a specific location at a particular point in time. Thus, usage-based pricing cannot reduce the sudden spikes in congestion that arise from the inherent mobility of wireless customers, who move unpredictably from one cell site to another. The number of users on a given cell site can change dramatically in hours or even minutes. A major car accident on a sleepy road, a protest march, or a holiday shopping surge can cause wireless traffic to peak suddenly, imposing unpredictable bandwidth demand that far exceeds the cell's capacity to support data usage. In such circumstances, wireless providers can preserve network resources for essential functions, including emergency and other voice calls, only if they can manage the bandwidth available to bandwidth-intensive applications during periods of congestion. See *Second Reed & Tripathi Paper* at 23-24. If deprived of that network-management flexibility, providers would have to allow voice calls to fail whenever an unexpectedly large aggregation of users in a cell began using bandwidth-intensive data applications.<sup>131</sup>

In short, given the unique technological challenges facing mobile broadband providers, "neutrality" obligations are particularly ill-suited to the wireless context. Such obligations would force network engineers to err on the side of extreme conservatism in addressing network challenges, lest the Commission decide, in an enforcement proceeding several years later, that

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recent Nielsen Company report found, for example, that only "6 percent of smart phone users are consuming half of all data." Roger Entner, *Quantifying the Mobile Data Tsunami and Its Implications*, NIELSENWIRE, June 30, 2010, [http://blog.nielsen.com/nielsenwire/online\\_mobile/quantifying-the-mobile-data-tsunami-and-its-implications/](http://blog.nielsen.com/nielsenwire/online_mobile/quantifying-the-mobile-data-tsunami-and-its-implications/). Given this, usage-based pricing is fairer to low-usage customers, who subsidize high-usage customers in the all-you-can-eat model that prevails in most networks today. *Id.* ("The vast majority of customers ... are better off with a pricing scheme like AT&T's new data pricing model than under flat-rate pricing where they are paying for much more than they ever use.").

<sup>131</sup> See *Second Reed & Tripathi Paper* at 23-24; *Reed & Tripathi Paper* § 4.3; *AT&T Net Neutrality Comments* at 160 n.310; *AT&T Net Neutrality Reply Comments* at 95.

those engineers had guessed wrong about which network-management techniques would pass regulatory scrutiny. That conservatism would undermine the service quality available to all consumers and expose every wireless network to greater risks of failure. The Commission should focus on allocating more spectrum to providers, not on saddling them with new regulations that constrain their ability to use the limited spectrum they currently have in ways that further the best interests of all their customers.

The Commission could not alleviate these concerns by adopting a “flexible” exception to any “neutrality” mandate for “reasonable network management.” First, network engineers must employ countless different and ever-evolving network-management techniques as a fundamental part of the day-to-day, second-to-second reality of operating a wireless network. That is because, in part, “radio resource management and traffic prioritization is a complex issue, one that must be driven by unreliable propagation and limited bandwidth. The best design does the best job possible to satisfy aggregate customer satisfaction in the particular circumstances, which will differ from network to network, at different locations within networks, and with time.” *Reed & Tripathi Paper* § 3.4.

There can thus be no defined or static understanding of which practices would fall within the “reasonable network management” exception. Accordingly, if the Commission subjected wireless providers to a general ban on traffic differentiation, subject only to a safe harbor for certain pre-approved network-management techniques, those techniques would quickly become obsolete, and providers would be hamstrung when presented with new challenges that require prompt adaptation. And even if providers were permitted more flexibility in their wireless network-management practices, the possibility that their practices would be deemed

unreasonable after the fact would severely chill experimentation in developing innovative network-management techniques.

**b. Imposition of a “Neutrality” Mandate for Application Stores Would Destroy the Product Diversity Valued by Consumers Today.**

As alluded to in the *Notice*, some pro-regulation advocates have urged the Commission to require every application store to sell, and every wireless provider to support, every single application.<sup>132</sup> If the Commission were to impose such a broad “any application” mandate on wireless providers or application stores, it would destroy countless existing business models and pro-consumer choices for the delivery of content and applications and for the provision of wireless broadband service. Such a mandate would also make no sense even as an original matter, because it would senselessly homogenize the marketplace for mobile broadband applications and thereby reduce consumer choice.

Today, many different application stores compete vigorously for customers. These stores are managed not just by wireless providers, but by many different industry players, including device manufacturers (*e.g.*, Apple’s iTunes Store, BlackBerry’s App World, Palm’s App Catalog, Nokia’s Ovi Store, Samsung’s Application Store, Sony’s PlayNow arena, and LG’s Application Store); mobile operating system developers (Google’s Android Market and

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<sup>132</sup> See *Notice* at 5. See generally *Afflerbach & DeHaven Paper*. See also Comments of The National Association of Telecommunications Officers (“NATOA”) and The Benton Foundation, *Preserving the Open Internet; Broadband Industry Practice*, GN Docket No. 09-191, WC Docket No. 07-52, at 11 (filed Jan. 14, 2010); Comments of the Open Internet Coalition, *Preserving the Open Internet; Broadband Industry Practice*, GN Docket No. 09-191, WC Docket No. 07-52, at 38-39 (filed Jan. 14, 2010) (supporting Afflerbach and DeHaven’s “any device, any application” model).

Microsoft's Windows Mobile Downloads); independent mobile application stores (Handango and GetJar); and stand-alone developers (Facebook and The Wall Street Journal).<sup>133</sup>

As competitors have worked to win and retain customers, several distinct service models have emerged and gained wide acceptance among different groups of consumers. For example, many wireless consumers prefer a secure, mediated broadband environment, where they can feel safe about the applications they use and confident that those applications will function well on their wireless devices. The iPhone model is based on this concept: it features applications that Apple has pre-screened to ensure that they are optimized for use over the iPhone platform.<sup>134</sup>

In contrast, other customers prefer less actively managed models that allow them more independent customization of their wireless broadband experiences. As would be expected of a competitive market, many options have emerged to satisfy that demand, including the Google Android model.<sup>135</sup> In addition to Verizon and T-Mobile, AT&T also supports a range of new Android devices supplied by Dell, HTC, Motorola, and others. These devices offer customers

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<sup>133</sup> See *Wireless Devices and Applications Appendix* at 9-10.

<sup>134</sup> Of course, this more “managed” environment includes over 100,000 applications, and customers can always leave the confines of the iPhone application environment through the built-in web browser, which provides access to compatible content, applications, and services on the unmediated Internet. See Apple, Press Release, *Apple Announces over 100,000 Apps Now Available on the App Store*, Nov. 4, 2009, <http://www.apple.com/pr/library/2009/11/04appstore.html>.

<sup>135</sup> See Ryan Paul, *Robot Invasion: Android and Google Voice coming to Verizon*, *Ars Technica*, Oct. 6, 2009, <http://arstechnica.com/gadgets/news/2009/10/robot-invasion-android-and-google-voice-coming-to-verizon.ars>. AT&T customers can also select devices with operating systems from a wide variety of providers, including BlackBerry, Palm OS, iPhone OS, Windows Mobile, and the open source Symbian and Java systems. See AT&T Choice, <http://choice.att.com/developers/GettingStarted.aspx>; AT&T devCentral, <http://developer.cingular.com/developer/index.jsp?page=toolsTechOverview&id=800048>.

access to the “open” Android Market for applications—even while customers retain the option to access the more mediated AT&T App Center.<sup>136</sup>

While offering consumers the potential for greater user control and customization, these more “open” do-it-yourself models also present users with a greater risk of malicious applications and other security threats. For example, recent press reports have described a seemingly innocuous wallpaper application available in the Android Market that was actually designed to acquire and transmit personal user data, such as phone numbers and SIM card serial numbers, to a Chinese-operated server.<sup>137</sup> Google was apparently unaware of the problem until it was brought to Google’s attention by a third-party mobile security company.

This diversity of business models benefits consumers by letting them choose the option that best suits their needs. All major wireless providers, moreover, support a range of application-distribution models on their respective networks—from “managed” to “open” to several that fall somewhere in between—and consumers who are unhappy with the applications provided under one model are free to choose another model without switching service providers.<sup>138</sup>

Thus, if the Commission now imposed a generic “neutrality” mandate on this marketplace as the New America Foundation suggests—requiring every application store to sell,

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<sup>136</sup> AT&T, Android Smartphones, <http://www.wireless.att.com/cell-phone-service/cell-phone-sales/promotion/ces.jsp>.

<sup>137</sup> Greg Keizer, *Free Android Apps Scrape Personal Data, Send it to China*, Computerworld, July 30, 2010, [http://www.computerworld.com/s/article/9179894/Free\\_Android\\_apps\\_scrape\\_personal\\_data\\_send\\_it\\_to\\_China](http://www.computerworld.com/s/article/9179894/Free_Android_apps_scrape_personal_data_send_it_to_China).

<sup>138</sup> Indeed, consumers also have the choice to access many competing applications stores of both types over a single wireless device. For example, a consumer using one of AT&T’s Android phones could access the more mediated AT&T App Center, or could instead download applications from the “open” Android Market. AT&T, Android Smartphones, <http://www.wireless.att.com/cell-phone-service/cell-phone-sales/promotion/ces.jsp>.

and every provider to support, every possible application—it would not provide consumers with a new “open” model that they currently lack, because consumers can already choose such models today, in the competitive wireless marketplace, from any major provider. Instead, the “neutrality” mandate would serve only to homogenize the marketplace and *deprive* consumers of their current right to choose a more mediated model. It is difficult to imagine an outcome more inimical to the interests of actual consumers.

### **C. Imposition of “Neutrality” Obligations Would Be Unlawful.**

Quite apart from these policy concerns, the Commission could not lawfully impose “neutrality” obligations on the wireless broadband industry in any event, as we have previously explained in detail.<sup>139</sup>

*First*, just before it held the 700 MHz auction, the Commission made a calculated decision to impose an “any application, any device” model on the winning bidders of the upper 700 MHz C Block spectrum—and on them alone.<sup>140</sup> The Commission recognized that any such “openness” mandate could have “unanticipated drawbacks,” and, accordingly, it expressly declined to impose that model on any other block of spectrum until after the Commission could evaluate the effects of the C Block openness requirement. *Id.* That C Block experiment has not even begun, let alone produced sufficient data to demonstrate the trade-offs of the “any application, any device” model.

If the Commission now imposed “openness” obligations on the entire industry rather than just upper 700 MHz C Block licensees, it would defeat the investment-backed expectations of

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<sup>139</sup> See *AT&T Net Neutrality Comments* at 207-48; *AT&T Net Neutrality Reply Comments* at 140-74, 83-84; *AT&T Title II Comments* at 67-114; Reply Comments of AT&T Inc., *Framework for Broadband Internet Service*, GN Docket No. 10-127, at 22-65 (filed Aug. 12, 2010) (“*AT&T Title II Reply Comments*”).

<sup>140</sup> Second Report and Order, *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, 22 FCC Rcd 15289, 15364 ¶ 205 (2007).

the many companies that bid on *other* 700 MHz spectrum, unencumbered by the C Block “any device” and “open platform” requirements.<sup>141</sup> In placing their bids, those carriers appropriately assumed that, true to its word, the Commission would not extend “open-platform” requirements outside the C Block. The result was a stark disparity in the relatively low per-POP bids for C Block spectrum and the much higher bids for other 700 MHz spectrum that was not equally encumbered.<sup>142</sup> AT&T in particular made clear that it had decided to pay much higher prices for its 700 MHz B Block spectrum specifically because that spectrum came “[w]ith fewer costly and complex regulations” and thus offered “the certainty and flexibility needed to move faster in rolling out new mobile technology and more customer choices in devices and applications[.]”<sup>143</sup> Under basic APA, due process, and Takings Clause principles, the Commission may not now change the rules of the game and impose open access rules that would massively devalue the spectrum for which AT&T and other winning bidders paid billions of dollars.<sup>144</sup>

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<sup>141</sup> *AT&T Net Neutrality Comments* at 152; *AT&T Net Neutrality Reply Comments* at 83.

<sup>142</sup> *See, e.g.,* George S. Ford, Thomas M. Koutsky & Lawrence J. Spiwak, *Using Auction Results to Forecast the Impact of Wireless Carterfone Regulation on Wireless Networks*, Phoenix Center Policy Bulletin No. 20, at 13 (May 2008) (“[W]e predict the Upper C block should have sold for approximately \$7.9 billion .... The actual price for the block was about \$4.75 billion, which suggests that the open access regulations trimmed \$3.1 billion from the winning bids, or nearly a 40% loss in revenues. These calculations imply that because of the open platform mandate, the Upper C block licenses were nearly 40% less valuable than they would have been if those regulations had not been in place.”).

<sup>143</sup> AT&T, Press Release, *AT&T Acquires Key Spectrum to Set Foundation for Future of Wireless Broadband, More Choices for Customers; Company Acquires High-Quality B-Block Spectrum in FCC Auction to Bolster Spectrum Position; Auction Strategy Complements Recent Aloha Partners Acquisition to Give AT&T the Ability to Deliver Next-Generation Wireless Services*, Apr. 3, 2008, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=25428>; Dianne See Morrison, *AT&T Trumpets Its “Unencumbered” B Block Spectrum Win*, mocoNews.net, Apr. 4, 2008, <http://moconews.net/article/419-att-trumpetsits-unencumbered-b-block-spectrum-win/>.

<sup>144</sup> *See AT&T Net Neutrality Comments* at 246-48; Comments of AT&T, Inc., *Fostering Innovation and Investment in the Wireless Communications Market, A National Broadband Plan For Our Future*, GN Docket Nos. 09-157 & 09-51, at 119-21 (filed Sept. 30, 2009). In all, the

*Second*, in any event, the Commission lacks statutory authority to impose broad “neutrality” obligations on wireless broadband Internet access services.<sup>145</sup> To begin with, the Commission has not explained how such generalized obligations could be somehow ancillary to the performance of its specifically enumerated statutory responsibilities elsewhere in the Act, as *Comcast* requires it to do before exercising Title I authority. In the wake of *Comcast*, the Commission has proposed to address that lack of authority over broadband Internet access services by reclassifying them as “telecommunications services” under Title II. But even if such services could be so reclassified, which they cannot be,<sup>146</sup> Section 332(c)(2) would independently preclude the Commission from imposing these new common-carrier-style obligations on *wireless* broadband Internet access services, for reasons that AT&T and others have explained in detail.<sup>147</sup>

Under that provision, mobile services can be subjected to common-carrier-type rules *only* if they qualify as “commercial mobile radio service” (“CMRS”). A provider engaged in any non-“commercial” (*i.e.*, “private”) mobile radio service “shall *not*, insofar as such person is so engaged, be treated as a common carrier for any purpose under this [Act].” 47 U.S.C.

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700 MHz auction yielded more than \$19 billion—more than any previous auction. The C Block accounted for only \$4.74 billion of that total. See Federal Communications Commission, *Auction 73: 700 MHz Band*, [http://wireless.fcc.gov/auctions/default.htm?job=auction\\_summary&id=73](http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73); Kelly M. Teal, *700MHz: Verizon Wins C Block, FCC De-Links D Block*, *xchange*, Mar. 20, 2008, <http://www.xchangemag.com/hotnews/700mhz--verizon-wins-c-block--fcc-de-links-d-.html>.

<sup>145</sup> See *AT&T Net Neutrality Comments* at 208-22; *AT&T Net Neutrality Reply Comments* at 140-51; *AT&T Title II Comments* at 67-109; *AT&T Title II Reply Comments* at 22-53.

<sup>146</sup> See generally *AT&T Title II Comments* at 67-90.

<sup>147</sup> See 47 U.S.C. § 332(c)(2); *AT&T Title II Comments* at 112-14; *AT&T Title II Reply Comments* at 62-65.

§ 332(c)(2) (emphasis added).<sup>148</sup> To qualify as CMRS, a service must offer “interconnect[ion] with the public switched network.” *Id.* § 332(c)(1), (d)(1)-(2). But mobile broadband Internet access is not CMRS because it is *not* “interconnect[ed] with the public switched network.” Indeed, the Commission has already made this precise finding. *See Wireless Broadband Order*, 22 FCC Rcd at 5917-18 ¶ 45. As the Commission explained, even though VoIP and other applications *use* mobile broadband access to offer customers an interconnected service, wireless broadband Internet access “in and of itself does not provide th[e] capability to communicate with all users of the public switched network.” *Id.* Thus, wireless broadband Internet access “*itself* is not an ‘interconnected service[.]’” *Id.* (emphasis added).

That finding, and more broadly the plain language of the Act, preclude the Commission from treating mobile broadband Internet access “as a common carrier [service] for any purpose under this [Act].” 47 U.S.C. § 332(c)(2). This, in turn, bars the Commission from imposing general “nondiscrimination” or other “neutrality” rules on wireless broadband providers, for such rules are paradigmatic examples of common-carrier regulation. And as AT&T has recently explained, the Commission cannot avoid that conclusion simply by calling such rules something other than “common carrier” obligations, because that is exactly what they would be.<sup>149</sup>

Finally, some of the proposals discussed in the *Notice* would effectively treat *application-store providers* as common carriers under Title II by restricting their discretion over which

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<sup>148</sup> All mobile services that do not qualify as CMRS are, by definition, “private mobile radio services.” 47 U.S.C. § 332(d)(3); *see, e.g., Cellnet Commc’ns, Inc. v. FCC*, 149 F.3d 429, 433 (6th Cir. 1998) (“CMRS includes all mobile services operated for profit that solicit for subscribers and are *interconnected with the public switched network, which is the traditional land-line telephone service*.... PMRS includes all wireless services that do not meet the definition for CMRS.”) (emphasis added).

<sup>149</sup> *See* Letter from Michael Goggin, AT&T, to Marlene Dortch, FCC, WT Docket No. 05-265, at 2-3 (Sept. 22, 2010) (citing, *inter alia*, *FCC v. Midwest Video Corp.*, 440 U.S. 689, 703-05 (1979)).

applications are made available in the stores they operate. *Notice* at 5. Given that wireless broadband Internet access services are not CMRS services, it is inconceivable that wireless broadband *applications stores* could reasonably be deemed CMRS services under Title III. Section 332(c)(2)'s prohibitions therefore would apply with even greater force to application stores. The Commission cannot credibly consider imposing this type of regulation under existing law.

**D. There Is No Need for Additional Transparency and Disclosure Requirements for Mobile Wireless Broadband Services.**

Although, as discussed in Section I.D above, AT&T would support efforts to craft generally applicable “transparency” principles and best practices for all providers in the broadband marketplace, there is no need for prescriptive disclosure *rules* in this context because wireless broadband providers already provide effective and comprehensive disclosures to consumers. Indeed, best practices for such voluntary disclosures are particularly well-developed and widely implemented in the wireless marketplace.

Robust wireless broadband competition creates strong incentives for providers to inform consumers about their options. Wireless providers facing intense competition “must find effective, long-term approaches to keep their existing customer base” satisfied while simultaneously “find[ing] ways of attracting customers from rival networks.”<sup>150</sup> This competitive pressure has driven wireless providers to be highly responsive to consumer demands for transparency and disclosure,<sup>151</sup> and to be increasingly open about their policies and

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<sup>150</sup> Andy Holcombe, Telecommunications International, *The self-service approach to churn reduction* (Oct. 2002), [http://findarticles.com/p/articles/mi\\_m0IUL/is\\_10\\_36/ai\\_93209699/](http://findarticles.com/p/articles/mi_m0IUL/is_10_36/ai_93209699/).

<sup>151</sup> See *AT&T Net Neutrality Comments* at 188 (discussing the effect of competition on disclosure practices); *Verizon Net Neutrality Comments* at 49 (“Transparent and meaningful disclosures to consumers enable them to make educated choices and thereby facilitate competition.”). See also *T-Mobile Net Neutrality Comments* at 37; Comments of BT Americas

practices.<sup>152</sup> Indeed, wireless providers actively compete to provide clear, concise, and useful information to assist consumers in selecting their service plans, managing their services, and understanding their bills.

To begin with, most wireless providers, including AT&T, have adopted the consumer-protection and disclosure principles in the CTIA Consumer Code. Participating wireless providers agree to supply, among other things, detailed and comprehensive disclosures of rates and services at the point of sale and online, up-to-date coverage maps, disclosure of material terms and conditions in advertising, bills that separate carrier charges from taxes and other fees, and easy access to effective customer-service resources.<sup>153</sup> Thirty-one providers, including all of the largest wireless providers, have committed to the Consumer Code and recertify their compliance annually.<sup>154</sup> Thus, consumers already receive a baseline of service and billing information with respect to the wireless services that they receive from these carriers.

For its part, AT&T makes many tools available to wireless broadband consumers to ensure adequate disclosure beyond the baseline requirements established by the Consumer Code. For example, AT&T provides detailed point-of-sale disclosures to make sure that potential and actual customers understand the services that they are purchasing and can make informed

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Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 2-3 (filed Jan. 14, 2010); Comments of Time Warner Cable Inc., *Preserving the Open Internet, Broadband Industry Practices*, GN Docket No. 09-191, WC Docket No. 07-52, at 98-99 (filed Jan. 14, 2010).

<sup>152</sup> See Clive Thompson, *The See-Through CEO*, WIRED Magazine, Mar. 2007, [http://www.wired.com/wired/archive/15.04/wired40\\_ceo.html](http://www.wired.com/wired/archive/15.04/wired40_ceo.html) (“The reputation economy creates an incentive to be *more* open, not less.”).

<sup>153</sup> See CTIA, Consumer Code for Wireless Service, <http://files.ctia.org/pdf/ConsumerCode.pdf>.

<sup>154</sup> See CTIA, Consumer Code Participants, <http://www.ctia.org/content/index.cfm/AID/10623>; CTIA, Consumer Code: Questions & Answers, [http://www.ctia.org/consumer\\_info/service/index.cfm/AID/10549](http://www.ctia.org/consumer_info/service/index.cfm/AID/10549).

decisions about whether particular services meet their needs.<sup>155</sup> Among these is the AT&T “Customer Service Summary,” which discloses key plan terms, including early termination terms, trial periods, surcharges and fees, and a detailed itemization of features included in the plan. *Id.* at 19. AT&T also offers interactive, street-level coverage maps that help customers identify where they will be able to access wireless voice and data services.<sup>156</sup>

AT&T also offers many tools to help consumers track their broadband data usage. These include text notifications when data customers begin to approach their monthly usage limits. After the customer reaches 65 percent, 90 percent and 100 percent of the threshold, they will receive text messages, and emails if AT&T has their email address.<sup>157</sup> Customers with certain devices can use AT&T’s free myWireless application to check data usage. *Id.* And all customers can also call \*DATA# from their wireless phone to check their data usage for the current billing period and receive a free text message with their usage information. *Id.* Alternatively, customers can also go online at AT&T’s website to view their past and present usage information. *Id.*

In addition, AT&T offers its customers a wide range of tools to help them track and manage their usage when traveling internationally, to help them avoid overage charges. These include the Usage Tracker on iPhone, the Communications Manager for laptop data users, standard usage notices, and roaming block.<sup>158</sup> AT&T also offers online tools that answer various

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<sup>155</sup> See *AT&T Consumer Information and Disclosure Comments* at 16-21.

<sup>156</sup> See AT&T Coverage Viewer, <http://www.wireless.att.com/coverageviewer/>.

<sup>157</sup> AT&T, Press Release, *AT&T Announces New Lower-Priced Wireless Data Plans to Make Mobile Internet More Affordable to More People*, June 2, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30854>.

<sup>158</sup> Comments of AT&T, *Measures Designed to Assist U.S. Wireless Consumers to Avoid Bill Shock*, CG Docket No. 09-158, at 9 (filed July 6, 2010).

questions about using AT&T services abroad,<sup>159</sup> including “Know Before You Go,”<sup>160</sup> “Verify Rates,”<sup>161</sup> “Travel Guide,”<sup>162</sup> and “FAQ on International Roaming.”<sup>163</sup> AT&T likewise works to ensure that its bills contain clear information, including a useful summary, and organizes its bills in a way that is easy for consumers to understand. *See AT&T Consumer Information and Disclosure Comments* at 14-16. It also provides a “first-bill explanation” to provide transparency and detailed billing information at the beginning of the customer relationship. *Id.* at 15.

Other providers offer a similar range of helpful tools and information. Verizon and Sprint, for example, have declared their commitments to continually inform and educate consumers at all points in the consumer relationship.<sup>164</sup> Again, providers compete in large part on the quality of the customer experience, which includes the provision of plain, understandable terms, so that consumers know what to expect and are more satisfied with their service. Like the constantly evolving wireless services and devices in the market, customer disclosures are also

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<sup>159</sup> *See id.* 8-9.

<sup>160</sup> AT&T, Know Before You Go, <http://www.wireless.att.com/learn/international/roaming/know-before-you-go.jsp>.

<sup>161</sup> AT&T, Traveling Outside the U.S., <http://www.wireless.att.com/learn/international/roaming/international-roaming.jsp?wtSlotClick=1-0021N8-0-1&WT.svl=calltoaction>.

<sup>162</sup> AT&T, Travel Guide, <http://www.wireless.att.com/learn/international/roaming/travel-guide.jsp>.

<sup>163</sup> AT&T, Frequently Asked Questions About International Roaming, <http://www.wireless.att.com/learn/international/roaming/faq.jsp>.

<sup>164</sup> *See, e.g.,* Comments of Verizon and Verizon Wireless, *Consumer Information and Disclosure, Truth-in-Billing and Billing Format, IP-Enabled Services*, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36, at 16 (filed Oct. 13, 2009) (declaring that Verizon “constantly strives to provide the optimal level of information in order to facilitate educated purchasing decisions” in ways that “go above and beyond [current] industry standards”); Comments of Sprint Nextel Corporation, *Consumer Information and Disclosure, Truth-in-Billing and Billing Format, IP-Enabled Services*, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36, at 11 (filed Oct. 13, 2009) (describing Sprint’s efforts to continually “ensure that consumers are well-informed throughout all stages of the sales process”).

continually evolving, and AT&T and other wireless providers are constantly developing new practices and refining existing measures. This dynamic approach, influenced by and responsive to consumer demand, is preferable to static rules that prescribe a specific type and format of information for disclosure.

In addition to the substantial information offered by wireless service providers, independent third parties also offer a variety of tools that empower customers. Those entities provide information about wireless broadband service at all levels of detail. Numerous independent applications, for instance, help consumers analyze costs and permit them to control and make educated choices about their use of wireless data services.<sup>165</sup> Various websites help consumers compare competing plans in their geographic area.<sup>166</sup> And regional rankings conducted by national customer survey groups help consumers judge providers' performance and customer-satisfaction rates.<sup>167</sup>

As AT&T has explained at length, wireless broadband providers have also taken steps to ensure that third-party device and application providers have the information they need to design devices and content that run seamlessly over mobile broadband networks.<sup>168</sup> For example,

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<sup>165</sup> See, e.g., Ronen Halevy, *David – A Cheap Wireless Data, SMS, & Minutes Usage Monitoring*, Berry Review, July 20, 2009, <http://www.berryreview.com/2009/07/20/david-a-cheap-wireless-data-sms-minutes-usage-monitoring/>; Ronen Halevy, *MiniMoni Beta – Monitor & Track Your Data Usage Free*, Berry Review, Dec. 17, 2007, <http://www.berryreview.com/2007/12/17/minimoni-beta-monitor-track-your-data-usage-free/>.

<sup>166</sup> See, e.g., Mary Pilon, *Paying Too Much for Your Cell Phone?*, Wall St. J., Oct. 20, 2008, <http://blogs.wsj.com/wallet/2008/10/20/paying-too-much-for-your-cell-phone/> (discussing BillShrink).

<sup>167</sup> See, e.g., J.D. Power and Associates, *Wireless Customer Care Ratings*, [http://www.jdpower.com/telecom/ratings/wireless-customer-care-ratings-\(volume-1\)](http://www.jdpower.com/telecom/ratings/wireless-customer-care-ratings-(volume-1)); J.D. Power and Associates, *High Speed Internet Service Provider Ratings*, <http://www.jdpower.com/Telecom/ratings/high-speed-internet-service-provider-ratings>.

<sup>168</sup> See *AT&T Net Neutrality Comments* at 192-93; *AT&T Net Neutrality Reply Comments* at 67-70; *Wireless Devices and Applications Appendix* at 3-13.

through its devCentral, Sandbox, “Apps Beta,” and “M2M Developer Kit” programs, as well as its newly enhanced Developer Web Site, AT&T offers providers the information that they need to design offerings that function well over AT&T’s network. *See* pages 46-47 and 53-54, *supra*. Other providers too offer robust tools to third-party manufacturers and application developers to enable them to design secure and stable applications and devices for use on the providers’ networks. *See id.*

In sum, regulatory disclosure mandates would be both unnecessary and counterproductive in the wireless context. Vigorous competition among service providers is providing more than enough incentive for wireless broadband providers to supply robust disclosures to consumers, device manufacturers, and application providers alike.

### CONCLUSION

The Commission should maintain its current deregulatory and pro-consumer policy approach to “specialized services” and mobile wireless broadband services, devices, and applications.

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