

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of	)	
	)	
Skype Communications S.A.R.L.	)	
	)	
Petition to Confirm a Consumer's Right to Use	)	RM-11361
Internet Communications Software and Attach	)	
Devices to Wireless Networks	)	

REPLY COMMENTS OF T-MOBILE USA, INC.

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T-Mobile USA, Inc. ("T-Mobile") submits these reply comments pursuant to the Commission's Public Notice released February 28, 2007 and subsequent Order released March 15, 2007 in the above-captioned proceeding.<sup>1/</sup>

**INTRODUCTION AND SUMMARY**

A substantial majority of industry participants filing comments in this proceeding, including manufacturers and small and large carriers, broadly opposes Skype's petition. As the record shows, the wireless service and equipment markets are robustly competitive and innovative. So much so that consumers already have substantial choice and flexibility in assembling packages of services, equipment, and applications that meet their needs. Indeed, the *unregulated* wireless market offers consumers far more choice than the set-top box and wireline

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<sup>1</sup> Public Notice, "Consumer & Governmental Affairs Bureau Reference Information Center Petition For Rulemakings Filed." Report No. 2807 (rel. Feb. 28, 2007); Order, *Petition to Confirm a Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, RM-11361, DA 07-1318, (rel. Mar. 15, 2007).

markets, notwithstanding the regulatory frameworks that have been in place in the latter two markets for many years or even decades.

In such circumstances, the Commission should steer clear of regulatory intervention. As it recognized in exempting direct broadcast satellite (“DBS”) from the set-top box rules and in deregulating wireless and broadband generally, where the market is functioning, even well-intended regulation can have unforeseen consequences that disserve consumers rather than advance the public interest. There is no basis for departing from that well-established and highly relevant precedent here. To the contrary, the record amply demonstrates that rules that even inadvertently hamper carriers’ ability to work with manufacturers to safeguard spectral efficiency and network security, or otherwise to oversee their networks, risk seriously compromising consumer choice, public safety, and quality of service.

Moreover, Skype’s and its supporters’ arguments deal with the realities of wireless technology only by trying to wish them away. Wireless services use a shared, scarce spectrum resource, employ diverse and rapidly changing technologies, and exhibit close interaction between networks, handsets, and applications. All of this makes the application of *Carterfone*-style rules inappropriate and counterproductive. Indeed, the practices that Skype brands anticompetitive are pro-consumer measures that carriers use to ensure their ability to provide high-quality, reliable service. In these circumstances, intervention by regulators in an attempt to “do better” would invariably make things worse.

For all these reasons, Skype’s petition should be roundly rejected.

**I. THE RECORD DEMONSTRATES THAT THE RELIEF SKYPE SEEKS IS UNNECESSARY AND WOULD HARM WIRELESS CONSUMERS.**

Industry participants overwhelmingly oppose Skype's request for unprecedented and unnecessary regulation of today's thriving wireless marketplace. Of twenty comments submitted by carriers, manufacturers, and a variety of organizations, fourteen oppose Skype's petition, speaking in a clear and uniform voice — in the dynamic and highly competitive wireless marketplace, neither *Carterfone*-style regulation nor net neutrality rules are necessary.<sup>2/</sup> Consumers already enjoy a robust and fast-changing variety of innovative options, as well as substantial flexibility to choose and use different equipment, service plans, and applications. In this environment, regulatory intervention, and its inevitable unforeseen consequences and costs, could only prove harmful.

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<sup>2/</sup> See Comments of LG Electronics MobileComm USA ("LG"); Motorola, Inc. ("Motorola"); Qualcomm Incorporated ("Qualcomm"); CTIA – The Wireless Association ("CTIA"); MetroPCS Communications, Inc. ("MetroPCS"); United States Cellular ("U.S. Cellular"); AT&T Inc. ("AT&T"); Sprint Nextel Corporation ("Sprint Nextel"); T-Mobile U.S.A., Inc. ("T-Mobile"); Verizon Wireless; FreedomWorks; the Consumer Electronics Association ("CEA"); the Information Technology Industry Council ("ITI"); and Voice on the Net Coalition ("VON"). Comments in support of Skype were limited to those submitted by: The *AD HOC* Public Interest Spectrum Coalition ("AD HOC"); the American Petroleum Institute ("API"); Consumers Union, Consumer Federation of America, and Free Press ("Consumers Union"); Mobile Industry Executives ("Executives"); National Association of State Utility Consumer Advocates ("NASUCA"); and People's Production House ("PPH").

The vast majority of letters filed in support of Skype appear to have utilized a short template promoted on the Consumers Union website. See <https://secure.npsite.org/cu/site/Advocacy?JServSessionIdr008=r6pv5ehx01.app5a&cmd=display&page=UserAction&id=1515>. Like other Skype supporters' comments, the form letter neither acknowledges nor deals with the factual differences between today's wireless marketplace and the 1968 wireline marketplace that spawned *Carterfone*. Skype and the two "mobile industry executives" also used their websites to encourage individuals to submit comments supporting Skype's petition, similarly divorced from the facts of the wireless marketplace. See [http://share.skype.com/sites/en/2007/04/skypes\\_petition\\_to\\_the\\_fcc\\_nee.html](http://share.skype.com/sites/en/2007/04/skypes_petition_to_the_fcc_nee.html); <http://pelp.wordpress.com/>.

**A. The Record Shows that the Unregulated Wireless Marketplace Already Offers Consumers Competitive Pricing, Equipment Options, and Broad Flexibility To Run Applications.**

The Commission itself has found, and every commenter to submit factual evidence in this proceeding demonstrates, that the wireless market is highly competitive across the board.<sup>3/</sup> Carriers offer consumers a wide variety of pricing options;<sup>4/</sup> there are dozens of equipment manufacturers,<sup>5/</sup> all of which are independent from the carriers,<sup>6/</sup> the equipment options are

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<sup>3/</sup> See, e.g., LG Comments at 2-3 (noting the “FCC again held that the CMRS market is subject to ‘effective competition’ . . . [and] [n]one of the[] carriers is in a position to exercise market power comparable to the monopoly AT&T of 1968”); Motorola Comments at 3 (“The competitiveness of the wireless market is underscored by the continued rollout of differentiated wireless pricing plans.”); Qualcomm Opp. at 3 (“[C]arriers [] compete fiercely in the provision of wireless services.”); MetroPCS Comments at 5 (“The robust competition in the wireless service industry, which is matched by substantial competition in the wireless equipment market, has resulted in substantial innovations not only with pricing plans and services[,] but also with new and innovative handsets which are feature rich despite declining prices.”); U.S. Cellular Comments at 2 (“[T]he wireless market of today is [] defined by . . . competition.”); see generally Eleventh 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 Commercial Mobile Services*, 21 FCC Rcd 10947 (2006) (“*11th Annual CMRS Competition Report*”).

<sup>4/</sup> See, e.g., Sprint Nextel Comments at 2 (noting that “competitive pressure ‘continues to drive carriers to introduce innovative pricing plans and service offerings, and to match the pricing and service innovations introduced by rival carriers’”) (quoting the *11th Annual CMRS Competition Report*); MetroPCS Comments at 5 (stating that “[r]obust competition . . . has resulted in substantial innovations . . . with pricing plans”);

<sup>5/</sup> See, e.g., Verizon Wireless Comments at 11 (stating “there are currently more than 800 wireless phones and devices available to consumers, from nearly three dozen manufacturers”); T-Mobile Comments at 14-15 (noting the “[i]ntense competition among approximately 40 different manufacturers . . .”); U.S. Cellular Comments at 3 (stating “there are currently at least 36 manufacturers offering [hundreds of] handset models”)

varied and constantly expanding and improving;<sup>7/</sup> many carriers liberally allow consumers to choose their own equipment;<sup>8/</sup> and carriers increasingly compete to make available more applications, add-ons, and capabilities in order to differentiate themselves and meet consumer demand.<sup>9/</sup> As one commenter succinctly notes, “Competition is brisk, prices are declining, and quality is significantly improving – hardly the signs . . . to suggest new regulatory requirements . . . .”<sup>10/</sup>

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<sup>6/</sup> See, e.g., CTIA Comments at 35 (“Unlike with AT&T in 1968, wireless carriers are not engaged in the manufacturing of wireless handsets.”); LG Comments at 3 (“Unlike the vertically integrated equipment market of 1968, no wireless carrier today manufactures handsets.”); MetroPCS Comments at 5 (“[W]ireless carriers have no undue power over equipment manufacturers.”); Hahn Paper at 31 (“None of the wireless operators owns equity in any of the major handset manufacturers, including Blackberry, Kyocera, LG, Motorola, Nokia, Palm, Samsung, Sanyo, and Sony Ericsson. Thus, the wireless operators lack a financial interest in steering their customers to one handset maker over another.”).

<sup>7/</sup> See, e.g., Verizon Wireless Comments at 11 (“Each year, wireless devices have grown more sophisticated, delivering multitudes of features.”); T-Mobile Comments at 14-15 (stating that “[i]ntense competition among . . . manufacturers has yielded hundreds of handset models featuring a mind-boggling array of capabilities”); Motorola Comments at 4 (“New and better devices are being developed and deployed everyday.”).

<sup>8/</sup> See T-Mobile Comments at 30 (noting that T-Mobile “broadly permits customers to use GSM handsets that can operate at 1.9 GHz on its network”); AT&T Comments at 60 (“AT&T does not prohibit the use of uncertified handsets.”); see also Robert W. Hahn, Robert E. Litan & Hal J. Singer, *The Economics of “Wireless Net Neutrality,”* AEI-Brookings Joint Center for Regulatory Studies, Apr. 2007, at 26 (“Hahn Paper”) (determining that three of the four national carriers do not require handsets to be sold by the operator).

<sup>9/</sup> See, e.g., Sprint Nextel Comments at 2 (noting that “competitive pressure ‘continues to drive carriers to introduce innovative pricing plans and service offerings, and to match the pricing and service innovations introduced by rival carriers’”); AT&T Comments at 14-15 (“Wireless carriers have strong incentives to develop innovative content and applications, and to partner with other providers that can develop broadband offerings – such as video, music, and web-related applications such as social networking – that will be attractive in the mobile context.”).

<sup>10/</sup> FreedomWorks Comments at 1.

The comments confirm that consumers are well served by the competitive wireless marketplace.<sup>11/</sup> Consumers can choose carriers that allow them to attach any compatible handset,<sup>12/</sup> as well as carriers that support handsets with Bluetooth, Wi-Fi, and many other capabilities.<sup>13/</sup> Handsets are sold “not only in the carrier’s stores, but at a large number of independent retailers including electronics stores such as BestBuy and Circuit City, shopping

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<sup>11/</sup> The marketplace is also serving particular market segments, including individuals with disabilities or at economic disadvantage. Although PPH suggests that new rules are necessary to ensure that the wireless industry serves persons with disabilities, PPH Comments at 2, the competitive marketplace has in fact produced many advances for these and other consumers with special needs. As CTIA notes, “Vocoder technology used in both handsets and base stations enable[s] telecommunications-devices-for-the-deaf (‘TDD’) users to benefit from the mobility offered by the wireless industry.” CTIA Comments at 27; *see also* Sprint Nextel Comments at 21-22 (noting that “many deaf, hard of hearing and speech impaired people depend on mobile, digital TTY for both emergency and non-emergency communications”). Similarly, many carriers and manufacturers offer phones aimed at senior citizens or others who may need simplified equipment with larger buttons. *See, e.g.,* T-Mobile Comments at 14 n.55. In addition, prepaid offerings have brought mobile service to those unable to afford postpaid plans, and deployment in hard-to-serve areas that may lack wireline broadband access has brought voice and data service to communities that would otherwise be at a serious disadvantage. *See 11th Annual CMRS Competition Report* at 10982-83 ¶ 88 (concluding “that CMRS providers are competing effectively in rural areas,” with “competitive national pricing plans with ‘surprisingly low per-minute pricing’”); T-Mobile Comments at 36 (noting that bundling helps economically disadvantaged customers, for whom up-front handset costs would otherwise be prohibitive).

<sup>12/</sup> *See supra* n.8.

<sup>13/</sup> *See, e.g.,* T-Mobile Comments at 32-34 (noting that “T-Mobile began offering handsets with integrated Wi-Fi functionality years before Skype filed its petition”; today “more than 80 handsets on the market have built-in Wi-Fi capability; and “26 of 37 handsets available for purchase from T-Mobile.com include Bluetooth functionality”); AT&T Comments at 50-52 (explaining that AT&T offers an expanding range of Wi-Fi-enabled handsets, and more than 80% of handsets available through AT&T are Bluetooth-enabled); Hahn Paper at 26 (determining that three of the four national carriers do not disable certain Bluetooth functionality or disable Wi-Fi).

mall vendors, wireless resellers, eBay, and even Wal-Mart.”<sup>14/</sup> Consumers can opt for broad or more limited Internet access, as they see fit,<sup>15/</sup> and can choose carriers that generally do not impose *a priori* limitations on applications or capabilities, but instead rely on their flexible right to protect the network and their customers if problems arise.<sup>16/</sup> As one major independent study, conducted entirely outside the context of this proceeding, demonstrated, most consumers are satisfied with their wireless services.<sup>17/</sup>

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<sup>14/</sup> George S. Ford, Thomas M. Koutsky & Lawrence J. Spiwak, *Wireless Net Neutrality: From Carterfone to Cable Boxes*, Phoenix Center Policy Bulletin No. 17, Apr. 2007, at 11 (“Phoenix Center Paper”); *see also* T-Mobile Comments at 11 (“handsets are available for purchase from a growing variety of non-carrier sources”); LG Comments at 2-3 (“LG . . . sells handsets through its wireless carrier customers, direct to the consumer (*e.g.*, via its website), and through various retail channels”); AT&T Comments at 12 (noting that consumers may purchase handsets “directly from manufacturers” and “from online vendors,” including “on the website of Skype’s owner, eBay”).

<sup>15/</sup> *See, e.g.*, T-Mobile Comments at 42 & n.141 (“T-Mobile data service subscribers with HTML-enabled smartphones or Wi-Fi-enabled laptops currently enjoy unfettered Internet access,” and “WAP-compatible wireless Internet browsing remains available today for consumers without HTML-enabled handsets . . .”).

<sup>16/</sup> *See, e.g.*, T-Mobile Comments at 23 (“T-Mobile’s current practices generally do not preclude customers from running specific applications . . . [b]ut . . . T-Mobile necessarily retains the right to limit use of applications that adversely affect service quality and network capacity.”); *see also* Hahn Paper at 24 (determining that three of the four national carriers “place no limitations on data usage with the appropriate wireless mobile phone plan”). AD HOC’s allegations regarding one particular T-Mobile handset are not accurate. T-Mobile customers today broadly enjoy the ability to set MP3s as ringtones on handsets with the necessary capabilities. *See* AD HOC Comments at 4

<sup>17/</sup> GAO Report, *Telecommunications: FCC Should Include Call Quality in Its Annual Report on Competition Phone Services*, Apr. 2003, available at <http://www.gao.gov/new.items/d03501.pdf> (reporting that more than 80% of wireless users were satisfied with their wireless services); *see also* 11th Annual CMRS Competition Report at 11017-18 ¶¶ 179-81 (discussing results of J.D. Power and Associates’ Wireless Customer Satisfaction Study, showing “an upward trend in overall customer satisfaction”).

Meanwhile, the case that Skype and its supporters make for their proposals is remarkably devoid of facts. Nearly all rely solely on a single paper authored by Professor Tim Wu,<sup>18/</sup> whose allegations the carriers and manufacturers have roundly disproved.<sup>19/</sup> The complaint by the two “mobile industry executives” about “vertical integration” in the wireless equipment market is equally ungrounded in facts;<sup>20/</sup> the record confirms that wireless carriers do not manufacture handsets and are not affiliated with handset manufacturers.<sup>21/</sup> Indeed, the two equipment manufacturers who filed comments strongly oppose Skype’s petition,<sup>22/</sup> undermining Skype’s suggestion that wireless carriers are somehow squelching manufacturer freedom.<sup>23/</sup>

Further, the claim by some commenters<sup>24/</sup> that carriers are avoiding their obligation under the *Cellular Bundling Order* to offer unbundled wireless service is simply false. As T-Mobile

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<sup>18/</sup> See, e.g., Consumers Union Comments (exclusively citing Wu Working Paper to support allegations regarding wireless carrier practices and associated allegations of consumer harm); Executives Comments (same); API Comments (same); NASUCA Comments (same).

<sup>19/</sup> See, e.g., T-Mobile Comments at 31-36; AT&T Comments at 48-62; see also Hahn Paper at 26-28; Schwartz Paper at 21-23.

<sup>20/</sup> See Executives Comments at 8 (alleging without support that “[t]he problem is structural: all of the carriers are vertically integrated”).

<sup>21/</sup> See *supra* n.6.

<sup>22/</sup> See generally LG Comments; Motorola Comments.

<sup>23/</sup> Similarly, notwithstanding Skype’s and its supporters’ claims that the market is “oligopolistic” and dominated by “four national carriers,” Skype Petition at 21-22, regional carriers MetroPCS and U.S. Cellular filed strenuous oppositions to Skype’s petition.

<sup>24/</sup> See AD HOC Comments at 6 (suggesting the Commission should “enforce the language in the 1992 *Cellular Bundling Order* that requires wireless operators to offer service separate from the CPE on a non-discriminatory basis”); Executives Comments at 4 (“U.S. operators only offer service plans where the handset costs and the service costs are bundled together.”); NASUCA Comments at 6 (“It does not appear that cellular service today is *offered* separately at a non-discriminatory price”) (emphasis in original).

specifically explained in its initial comments, a T-Mobile customer can purchase stand-alone service from T-Mobile without purchasing a T-Mobile-supplied handset.<sup>25/</sup> The record contains no evidence that other carriers are failing to honor their own *Cellular Bundling Order* obligations. As various commenters note, the market for stand-alone phones gives consumers the choice of supplying their own phones and purchasing unbundled service from carriers.<sup>26/</sup>

**B. Competition and Consumer Choice in the Wireless Market Stand in Stark Contrast to the Conditions the Commission Sought To Address in the 1968 Wireline and 1998 Set-Top Box Markets.**

As Chairman Martin has observed in the context of net neutrality generally, the Commission should act only where there is “evidence of a market failure that warrants regulation . . . .”<sup>27/</sup> The record makes clear that there is no such failure in the wireless market. In fact, consumers today already enjoy the benefits and choices that the Commission hoped competition would generate after adopting *Carterfone* and the associated rules for the wireline market and adopting the set-top box rules for the cable market. In those markets, by contrast, the

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<sup>25/</sup> See T-Mobile Comments at 30. Where a service has unique functionalities that are enabled in particular handsets, use of those handsets may be necessary to utilize the desired functionalities. For example, the Wi-Fi functionality of T-Mobile’s HotSpot @Home service is accessible only by utilizing an Unlicensed Mobile Access (“UMA”) handset (*i.e.*, a Wi-Fi enabled handset compatible with the GSM standard that permits transmission of GSM signals over unlicensed spectrum). See T-Mobile Comments at 37-38 (discussing T-Mobile’s HotSpot @Home service).

<sup>26/</sup> See, *e.g.*, Sprint Nextel Comments at 18 (“While consumers can purchase CPE and services on an unbundled basis, they overwhelmingly choose to purchase services through bundled packages.”); AT&T Comments at 56-57 (noting that AT&T sells discounted handsets with service plan commitments, as well as non-discounted handsets without service plan commitments); T-Mobile Comments at 30 (stating that customers are generally permitted to attach GSM handsets that can operate at 1.9 GHz).

<sup>27/</sup> Remarks of FCC Chairman Kevin J. Martin, National Cable & Telecommunications Association Meeting in Las Vegas, NV, 2007 WL 1342232, at \*3 (May 7, 2007) (“*NCTA Remarks*”).

absence of service or equipment competition, the vertical integration of the service provider and the equipment manufacturer, and the lack of technological innovation were the bases for the regulatory response.<sup>28/</sup> Thus, calls for regulation of the wireless market in the name of supposed competitive neutrality make little sense.

Skype's request arises in the context of a wireless market that *already* offers all these benefits. In the words of Professors Marius Schwartz and Federico Mini:

Today's wireless marketplace is far removed from the *Carterfone* scenario. No carrier is dominant. . . . Numerous independent competitors provide equipment or applications, and there is little integration by carriers into these adjacent markets or long-term exclusivity arrangements with independents. For these reasons alone, *Carterfone* presents no rationale for imposing access rules on wireless carriers.<sup>29/</sup>

In contrast to the historical exclusive production of set-top boxes by two makers<sup>30/</sup> and AT&T's production of all wireline CPE, the wireless market is awash in wireless handset manufacturers

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<sup>28/</sup> Congress and the Commission expressly based the set-top box rule on the absence of effective competition in cable service and on the practice by cable operators of requiring that customers lease set-top boxes from them. "At the time of the [Commission's] decision, all converter and security technology was available from the dominant cable operator only, so the lack of equipment from retail outlets and from different manufacturers was apparent and unquestioned." Phoenix Center Paper at 11; *see also* Report and Order, *Implementation of Section 304 of the Telecommunications Act of 1996*, 13 FCC Rcd 14775, 14780 (1998). While the cable operators did not manufacture set top boxes themselves, Motorola and Scientific Atlanta were under contract with the cable operators to produce set-top boxes to the standards established by the operators through CableLabs, and only the cable operators distributed the equipment.

<sup>29/</sup> Marius Schwartz and Federico Mini, *Hanging Up on Carterfone: The Economic Case Against Access Regulation in Mobile Wireless*, May 2, 2007, at 25 ("Schwartz Paper"), available at [http://files.ctia.org/pdf/PositionPaper\\_Schwartz\\_Mini\\_Carterphone\\_5\\_2\\_07pdf.pdf](http://files.ctia.org/pdf/PositionPaper_Schwartz_Mini_Carterphone_5_2_07pdf.pdf); *see also* Hahn Paper at 29-33 (concluding that the wireless marketplace lacks any monopoly provider, vertical integration into applications or equipment, or price regulation that could allow wireless operators to benefit from tying).

<sup>30/</sup> *See supra* n.28.

and wireless equipment choices featuring myriad options and various standards generated by broad industry standards development bodies.

The point is not simply that, as an anecdotal matter, the wireless market as compared to the 1968 wireline and 1998 multichannel video programming distribution (“MVPD”) markets does not present the same case for regulation. Rather, as the Phoenix Center concludes in its paper, “the mandates of, [and] conditions relevant to, *Carterfone* and the *Cable Navigation Devices* [rules] . . . *decidedly call for a rejection of the recent proposals[.]*”<sup>31/</sup> In particular, Congress specifically provided for the sunset of the set-top box rules once the cable industry becomes competitive,<sup>32/</sup> recognizing that competition will deliver consumer benefits *superior* to regulation. Similarly, the Commission relaxed many of its *Carterfone*-related rules as applied to the wireline industry as that industry became more competitive.<sup>33/</sup> As the Phoenix Center paper explains, under the very terms of the Commission’s set-top box order, “the grounds for removal of such a regulatory mandate had it been applied to wireless are clearly in place.”<sup>34/</sup>

Moreover, the Commission exempted direct broadcast satellite (“DBS”) systems from the set-top box rules precisely because “the DBS equipment market was already subject to the type

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<sup>31/</sup> Phoenix Center Paper at 1 (emphasis added).

<sup>32/</sup> See 47 U.S.C. § 549(e)(1)-(3) (providing for sunset of regulations once markets for MVPD services and set-top boxes are fully competitive and elimination of the regulations is in the public interest).

<sup>33/</sup> Report and Order, *Policy and Rules Concerning the Interstate, Interexchange Marketplace, 1998 Biennial Regulatory Review*, 16 FCC Rcd 7418, 7425 ¶ 11 (2001) (finding handset bundling ban unnecessary for wireline marketplace because “the risk of anticompetitive conduct that the Commission cited originally in enacting the bundling restrictions ha[d] been virtually eliminated”); see also T-Mobile Comments at 9-10.

<sup>34/</sup> Phoenix Center Paper at 11.

of competition that Congress and the Commission have sought to promote.”<sup>35/</sup> It found regulatory intervention inappropriate because “devices are available at retail and offer consumers a choice,” and because the imposition of invasive rules could “disrupt an evolving market that is already offering consumers the benefits that derive from competition.”<sup>36/</sup> Again, applying the Commission’s rationale from the set-top box context clearly calls for nonregulation here. The Commission forbore from regulating DBS set-top boxes because that marketplace had “three service providers and at least ten equipment manufacturers.”<sup>37/</sup> By comparison, the record shows the wireless marketplace has *dozens* of carriers and *dozens* of handset manufacturers competing to serve wireless customers.<sup>38/</sup>

In short, Skype’s proposal would entail a significant reversal of regulatory policy, “replacing an effectively competitive market with a new regulatory regime that ultimately would entail new rules for access and pricing, all in the name of achieving what already exists — a competitive outcome.”<sup>39/</sup> In light of the Commission’s clear precedents declining to impose *Carterfone*-like rules in such a competitive context, as well as Congress’ sunset provision

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<sup>35/</sup> Second Report and Order, *Implementation of Section 304 of the Telecommunications Act of 1996*, 20 FCC Rcd 6794, 6807 ¶ 26 (2005) (“*MVP Navigation Devices Second Report and Order*”); see also Verizon Comments at 65.

<sup>36/</sup> Report and Order, *Implementation of Section 304 of the Telecommunications Act of 1996*, 13 FCC Rcd 14775, 14800-01 ¶ 64 (1998).

<sup>37/</sup> *Id.*

<sup>38/</sup> See *supra* n.5; T-Mobile Comments at 11 n.44.

<sup>39/</sup> FreedomWorks Comments at 2; see also Qualcomm Opp. at 11 (“As the Commission has verified, the competitive nature of the market is causing lower prices and better services.”); CTIA Comments at iv (“Prices have fallen, service quality has improved, and new and innovative services are constantly being introduced.”); Verizon Wireless Comments at 46 (stating that Skype’s proposal would take from consumers “the benefits of technology competition and price competition resulting from technology diversity”).

embodying the same judgment, there is no conceivable basis for such heavy-handed regulatory intervention in the wireless context.

**C. The Unregulated Wireless Marketplace Has Produced More Consumer Choice Than Regulation Has Produced in the Wireline or Set-Top Box Markets.**

The wireless market is not only more competitive than the wireline and cable markets were when *Carterfone* and the set-top box rules were adopted, it is more competitive than those markets are today. Even after years of regulation in the wireline market and the establishment of the cable set-top box rules, wireline and cable consumers do not enjoy nearly the range of competitive options that are available to wireless consumers in an environment of minimal regulation. For example, while *Carterfone* has been a success in generating a competitive wireline CPE market (*e.g.*, allowing development of facsimile machines and dial-up modems and the like), the basic CPE that consumers use on the circuit-switched network has changed little in the four decades since *Carterfone*.<sup>40/</sup> In far less time, the unregulated wireless marketplace has generated an exponentially greater range of handset capabilities, functions, and prices.

Similarly, the set-top box rules — which have been plagued by 11 years of delay and disputes about standard-setting efforts<sup>41/</sup> — have failed to produce any dramatic innovation or broadening of consumer choice to date. The cable companies themselves offer basic and slightly more enhanced flavors of their boxes, but no significant variation and no substantial choice of

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<sup>40/</sup> See Charles L. Jackson, *Wireless Handsets Are Part of the Network*, Apr. 27, 2007, at 3 (Attachment C to CTIA Comments) (stating that “[t]he only significant change to the wired telephone interface since 1950 that I am aware of was the introduction of touch-tone dialing”).

<sup>41/</sup> See, *e.g.*, Memorandum and Opinion Order, *Charter Communications Inc.*, CS Docket No. 97-80, ¶ 3 (rel. May 4, 2007) (recalling history of numerous extensions regarding the effective date of the integration ban); *infra* n.43.

technological capabilities.<sup>42/</sup> And consumers seeking any type of interactive service from their cable company still must obtain their boxes from the incumbent, given the absence of any two-way CableCard standard.<sup>43/</sup> This simply does not compare to the choice and innovation that has developed, without regulatory intervention, in the wireless market.

All of this demonstrates the truth of the maxim that the competitive market is preferable to regulation. Congress and the Commission have consistently pursued deregulatory policies in competitive markets like wireless because, where competition exists, marketplace forces are better able to deliver innovation, price reductions, and consumer choice than any regulatory regime, no matter how well intended.<sup>44/</sup> Skype's suggestion that regulators could somehow "do even better" in delivering these consumer benefits in the wireless market simply cannot be squared with the fact that the wireless market has already outstripped any result regulators have ever produced.

Some commenters base their support for Skype's proposal on the misguided hope that invasive rules will spur wireless service providers to offer even more bandwidth for broadband

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<sup>42/</sup> For instance, Comcast offers only a basic digital set-top box and a high-definition compatible set-top box, each with an optional recording capability. See [www.comcast.com](http://www.comcast.com).

<sup>43/</sup> See, e.g., Eric A. Taub, *A CableCard That Hasn't Been Able to Kill the Set-Top Box*, The New York Times, Jul. 3, 2006, available at <http://www.nytimes.com/2006/07/03/technology/03cable.html?ex=1309579200&en=4051c7b474d19c71&ei=5088&partner=rssnyt&emc=rss> (noting that two-way CableCard technology "that would work with advanced services is being developed, but the specifications are still being debated"); Alan Stafford, *New HDTVs Bring Higher Def, Better Color*, PC World, Oct. 26, 2006, available at <http://www.pcworld.com/article/id,127312/article.html> (noting that "cable operators, the consumer electronics industry, and other concerned parties have made little progress agreeing on a two-way CableCard standard to support interactive features such as electronic program guides and video on demand").

<sup>44/</sup> See T-Mobile Comments at 26-30.

applications and more rural deployment. For example, Consumers Union and others<sup>45/</sup> suggest that wireless carriers might invest in higher broadband speeds if they were subject to “net neutrality” rules that required them to support all applications. The bandwidth limitations of wireless services, however, do not stem from a lack of desire by operators to offer higher speeds, but from the scarcity of spectrum and the limits of wireless technology — constraints that cannot simply be wished away by regulatory mandates. *Without* regulation, carriers have been spurred by competition to invest billions of dollars in additional spectrum and to implement successive waves of technological improvements, with the result that wireless broadband speeds have been advancing steadily.<sup>46/</sup> Rules that interfere with the carriers’ technological decisions and impede their efforts to provide quality service to their customers will likely slow this process, not speed it, by creating serious disincentives to investment.<sup>47/</sup>

Likewise, Skype’s proposal would not “do better” than the market in driving wireless investment into rural areas, as API suggests.<sup>48/</sup> Indeed, it is hard to see how the slew of new rules Skype advocates could spur *any* investment, much less investment in areas more expensive

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<sup>45/</sup> See Consumers Union Comments at 7, 10; PPH Comments at 2-3.

<sup>46/</sup> See, e.g., T-Mobile Comments at 12 (noting T-Mobile’s recent acquisition of a true nationwide spectrum footprint in AWS auction); CTIA Comments at iv (“Over the last 15 years, the United States mobile wireless industry has invested more than \$214 billion in expanding and improving mobile wireless services for consumers.”); Verizon Wireless Comments at 8-9 (noting that “competition has [] fueled extraordinary investment and rapid innovation,” with carrier investments of \$25 billion in 2005, and T-Mobile’s recent investment of more than \$4 billion in spectrum); see also *11th Annual CMRS Report*, Statement of Commissioner McDowell (“I applaud the competitive wireless industry for . . . invest[ing] the necessary capital that permits consumers the flexibility to pull the content of their choice at the time and place of their choice.”).

<sup>47/</sup> See, e.g., Qualcomm Opp. at 10-12; Verizon Wireless Comments at iii (Skype’s proposal would “deter[] investment away from network upgrades”).

<sup>48/</sup> See API Comments at 8.

to serve. As Chairman Martin has stated, “[r]egulation . . . could have the detrimental effect of slowing down the deployment of [wireless] broadband networks and thus the adoption of [wireless] broadband services.”<sup>49/</sup> In any event, new rules are not needed to spur rural investment, as the recent AWS auction aptly illustrates.<sup>50/</sup> Nor are rules needed to produce the resale that AD HOC advocates.<sup>51/</sup> The Commission has “been there, done that”: Only when the Commission sunsetted its previous resale mandate did the market generate the innovative resale arrangements that have made MVNOs a significant factor in the wireless marketplace.<sup>52/</sup> Again, the results produced by mandatory rules were outstripped by what competition has achieved. There is no need to relearn that lesson.

## **II. SKYPE AND ITS SUPPORTERS IGNORE BASIC TECHNOLOGICAL DIFFERENCES BETWEEN WIRELESS AND OTHER MARKETS.**

While the wireless market already offers robust consumer choice and flexibility, rules attempting to mandate that outcome by requiring unfettered access or establishing technological specifications would risk undermining critical network security and reliability. The technological realities of the wireless shared spectrum environment, as well as the close interaction of wireless networks and handsets, would make rules that limit carrier flexibility dangerous and counterproductive. As Motorola succinctly warns, the realities of the wireless

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<sup>49/</sup> NCTA Remarks at 3; *Wireless Broadband Order* at ¶ 4; see also *id.*, Concurring Statement of Chairman Martin at 1.

<sup>50/</sup> See, e.g., Report and Order and Further Notice of Proposed Rulemaking, *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, FCC 07-72 (Apr. 25, 2007) Statement of Commissioner Tate at 1 (noting that 48 rural telephone companies were winning bidders in the AWS auction); see also T-Mobile Comments at 12 (discussing pro-competitive implications of AWS auction).

<sup>51/</sup> See AD HOC Comments at 6.

<sup>52/</sup> See T-Mobile Comments at 28-29; Verizon Wireless Comments at 58-60.

market “pos[e] unique technical challenges that require the careful management of both network components and handset devices being used on wireless networks in order to provide reliable, high quality service to consumers.”<sup>53/</sup>

Skype and its supporters glibly point to the imposition of *Carterfone*-type rules in the wireline and cable set-top box markets as a basis for applying similar rules to wireless. Their positions “demonstrate[] a basic lack of technical knowledge regarding the manner in which wireless networks operate,”<sup>54/</sup> and “ignore[] the fundamental differences between wireless and wireline networks.”<sup>55/</sup> As T-Mobile explained, the wireline circuit-switched network provides dedicated capacity to each end user. As a result, an individual end user’s equipment or applications can have only a limited effect on other users or on the network overall.<sup>56/</sup> And, while cable capacity is shared beyond a certain point, most video subscribers — and the set-top boxes they use — have only limited, if any, ability to make *upstream* use of such capacity and instead are merely passive receptors of cable signals.<sup>57/</sup> As in the wireline universe, therefore, set-top box choices by cable customers can have little if any effect on the quality or security of the network as a whole.

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<sup>53/</sup> Motorola Comments at 6.

<sup>54/</sup> Sprint Nextel Comments at 7.

<sup>55/</sup> Verizon Comments at 29.

<sup>56/</sup> See T-Mobile Comments at 19-20 & n.78 (explaining why “[o]ne person’s use of a wireless network may significantly affect that of others, which is not the case for wireline networks”); Motorola Comments at 1-2.

<sup>57/</sup> Cable broadband, which does involve upstream use of capacity, is currently reserved to a discrete section of the cable to avoid any disruption to the video capacity.

This stands in stark contrast to wireless networks. As Motorola and others explain, “a wireless carrier’s subscribers are essentially utilizing the same line by accessing that carrier’s network via shared spectrum. Thus, if one subscriber decides to utilize the network at a given location, such use may inhibit another subscriber’s ability to access the network at the same time and location because there is only a limited amount of spectrum available.”<sup>58/</sup> In other words, “there are physical limits on the uses a wireless network can support in any particular geographic area.”<sup>59/</sup> In addition, as LG, Motorola, and Verizon Wireless, among others, point out, wireless networks also contend with far greater radio frequency interference issues than wireline networks — handsets used on one network can interfere with other customers on the same network, as well as with *other* networks in the same vicinity.<sup>60/</sup> As MetroPCS notes, *Carterfone* from the outset made exceptions not only for harm to the network, but also for harm to “the telephone system’s utility for others.”<sup>61/</sup> The concern in 1968 was a narrow one relating to shared party lines; in the case of wireless services, the risk of impairing others’ use of the network is far broader.

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<sup>58/</sup> Motorola Comments at 8.

<sup>59/</sup> AT&T Comments at 42-43.

<sup>60/</sup> See Verizon Comments at 30; LG Comments at 5-6; Motorola Comments at 9.

<sup>61/</sup> MetroPCS Comments at 12 (quoting *Carterfone* at 4).

Consequently, an end user running a spectrum-hogging application could substantially and quickly affect the quality of service enjoyed by all other subscribers in his or her area.<sup>62/</sup> In fact, on wireless networks, calls may fail entirely, and use of the spectrum may be blocked.<sup>63/</sup> As mobile networks are used increasingly for security and emergency communications, this is more than a nuisance concern.

The shared nature of wireless spectrum also makes the rapid spread of dangerous viruses a particular concern. As MetroPCS warns, insisting on “unfettered access to wireless . . . networks would open doorways” to “viruses [and] . . . [s]cam artists us[ing] spyware, phishing, website hijacking, and other techniques to extract personal information from unsuspecting users.”<sup>64/</sup> Thus, as Qualcomm notes, “a virus spread over a wireless network could cause severe

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<sup>62/</sup> See, e.g., T-Mobile Comments at 21-23 (explaining how “[w]ireless applications can significantly affect network capacity and quality of service for all users”); MetroPCS Comments at 14 (stating that usage restrictions are a necessary network resource management tool to prevent “a disproportionately low number of . . . subscribers [from] us[ing] the available bandwidth to the detriment of other[s],” such as “increasingly frequent dropped calls, blockings, and degraded voice and data service”); Qualcomm Opp. at 12-13 (stating that “it is entirely appropriate for the carriers to protect the collective rights of their subscribers by limiting the extent of use by any individual subscriber.”).

<sup>63/</sup> See, e.g., Motorola Comments at 11 (“[I]f any application could be utilized on a wireless carrier’s network, . . . [it could] effectively cause an unintentional denial of service attack on the wireless network, the access and control channel to be blocked, and overload the call processing resources in the network. The end result would be network outages that would adversely impact other customers.”); see also MetroPCS Comments at 14 (noting that “denial of access can hardly be considered as ‘not adversely affect[ing]’ the [wireless] network[s] or services”). By contrast, the closest parallel in the wired market is that service speeds may slow for all users. *Id.*

<sup>64/</sup> MetroPCS Comments at 14-15. Motorola also notes that “[a]pplications are customized for the approved devices supported by the particular wireless carrier and adapted to fit the limited resources available to a wireless device. In addition, network firewall protections . . . do not currently protect individual handheld devices. Consequently, mandating that users have the right ‘to run applications of their choosing’ without regard to such customization, resource limitations, and security constraints would inevitably lead to traffic congestion and other adverse customer-impacting effects.” Motorola Comments at 11-12.

problems for . . . untold numbers of subscribers, not to mention the long-term performance of the network itself . . . .”<sup>65/</sup>

In short, as VON concedes, carriers need to be able “to manage and prevent harm to their networks, and . . . such network management and technological concerns may be very different for wireless networks compared to wireline networks.”<sup>66/</sup> To protect both their networks and consumers’ ability to use them, wireless carriers must have the flexibility to limit applications and equipment that raise issues — and to move swiftly as problems arise, without the impediment of bureaucratic rules and procedures. Such flexibility is inherently inconsistent with regulatory mandates. Moreover, the record is devoid of any evidence that such flexibility is being abused. To the contrary, the record reveals increasing availability of applications over wireless phones.<sup>67/</sup> In particular, as CTIA and others show, VoIP (including Skype’s service) is increasingly available over wireless devices, as are all sorts of other applications.<sup>68/</sup> There accordingly is no need to risk regulatory intervention as Skype advocates.

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<sup>65/</sup> Qualcomm Opp. at 13. *See also* AT&T Comments at 63 (noting that “there have been more than 400 mobile device viruses created in the last 2 years[, and] [t]he risk of viruses becomes even greater as wireless handsets become more advanced, creating more targets for viruses and affording viruses different vectors for infection.”).

<sup>66/</sup> VON Comments at 7.

<sup>67/</sup> *See, e.g.*, CTIA Comments at 20 (“Contrary to Skype’s contentions, the market for wireless handset applications is vibrant, competitive, and open to any developer willing to program within a handset’s limitations.”); Sprint Nextel Comments at 25 (“Wireless carriers also compete with one another through the provision of many alternative service offerings[,] . . . created in conjunction with multiple different applications providers and hardware manufacturers.”).

<sup>68/</sup> *See, e.g.*, T-Mobile Comments at 41 (“T-Mobile currently does not generally prohibit customers from running any specific applications – including VoIP applications like Skype’s – on its wireless or Wi-Fi networks.”); CTIA Comments at 19 (noting “the availability of Skype Mobile software for handsets on all four national carriers”).

By the same token, rules precluding wireless carriers from supervising wireless devices could be devastating for end users, networks, and carriers alike. As numerous commenters point out, handsets and the networks on which they operate are uniquely interdependent. To begin with, the spectral efficiency of the handsets used by a wireless carrier's customers may significantly affect service quality and capacity overall; "the operation of each [wireless] handset [a]ffects the operation of other [wireless] handsets in the same area and the [wireless] network as a whole."<sup>69/</sup> Thus, an important choice each carrier makes "regarding the best manner to maximize the performance of the network . . . [is] the types of handsets used and the functionality of those handsets."<sup>70/</sup> As T-Mobile explains in its opening comments, this type of flexibility was crucial to ensuring service quality and efficiency for its customers in the New York area.<sup>71/</sup> Equipment manufacturer LG explains that carriers need oversight over the equipment used on their networks to "ensure spectral efficiency on the carrier's network," "maximize . . . battery life," "manage potential interference problems [caused by noncompliant or malfunctioning devices] in a proactive manner," and "facilitate use of devices in very close proximity to other devices."<sup>72/</sup> Carriers often prefer that the handsets used on their networks go well beyond the non-interference rules required by the Commission in order to promote spectral efficiency and quality of service, and they therefore work closely with manufacturers to design

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<sup>69/</sup> Sprint Nextel Comments at 7.

<sup>70/</sup> *Id.* at 7-8.

<sup>71/</sup> See T-Mobile Comments at 38-39.

<sup>72/</sup> LG Comments at 4-6 & n.9.

highly efficient devices.<sup>73/</sup> It is hard to see the public interest in precluding such collaboration, or the benefit in forcing carriers – and consumers — to bear the brunt of interference and reduced quality of service that could result from an unmediated device free-for-all.

As LG points out, carriers also collaborate with device manufacturers to develop means of identifying and remedying “security vulnerabilities, . . . [an] important function[] given the rise of worms, malware, and viruses targeting smartphones and other handsets.”<sup>74/</sup> Notably, such security concerns have likely been one of the primary stumbling blocks in the development of a two-way cable card in the set-top box industry.<sup>75/</sup> Thus, due at least in part to cable providers’ concerns about network and content security, consumers must still buy their devices *from the cable incumbents themselves* when they utilize interactive video service that makes even limited two-way use of the cable network.<sup>76/</sup> Indeed, the Commission has not even imposed a two-way CableCard device requirement to date — a fact that makes the set-top box analogy a particularly poor one to support the imposition of *Carterfone*-type rules with respect to *inherently* two-way wireless devices.<sup>77/</sup>

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<sup>73/</sup> See, e.g., *id.* at 5 & n.9 (“[C]arrier certification often includes stringent RF or vocoder requirements, which ensure spectral efficiency on the carrier’s network” and “Carriers . . . often mandate more rigorous emissions compliance than is required under the FCC rules in order to facilitate use of devices in very close proximity to other devices.”).

<sup>74/</sup> LG Comments at 4-6.

<sup>75/</sup> See *supra* n.43; see also Gary Arlen, *Plug & Play Goes Into Round Two*, TV Technology, Dec. 8, 2004, available at <http://www.tvtechnology.com/pages/s.0070/t.1565.html> (noting that participants in negotiations are “obeying their self-imposed gag order”).

<sup>76/</sup> See *supra* n.43.

<sup>77/</sup> See *id.*; Notice of Inquiry, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 21 FCC Rcd 12229, 12258-59 (2006) (seeking information on the status of two-way CableCard development).

The often close interaction of devices and wireless networks also is key to the introduction of new functionalities. As T-Mobile and others show in detail, coordination between network-based intelligence and handset capabilities is crucial to allow carriers to offer specialized services and applications that meet unique consumer needs.<sup>78/</sup> Such coordination also is necessary to ensure that wireless networks can support critical services such as E911, HAC, and emergency alerts.<sup>79/</sup> Addressing carriers' significant concerns regarding network management and regulatory compliance through a "harm to the network" standard, as VON and others suggest, would be inadequate because it would relegate carriers to *reacting* — and triggering regulatory processes — after a device fails to deliver the proper functionality.<sup>80/</sup> Carriers retain the ultimate obligation to ensure that their customers have E911 capability, for

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<sup>78/</sup> See, e.g., Verizon Wireless Comments at 17 ("any number of desirable wireless services — including multimedia services, various messaging services, and location-based service . . . depend on implementation both within network switches and on the devices"); T-Mobile at 24-25 (pointing out that due to the close integration of wireless handsets and networks, "[d]ictating that every wireless service must support every handset . . . would strip from consumers many current benefits and innumerable future innovations the competitive marketplace would otherwise offer").

<sup>79/</sup> See Qualcomm Opp. at 14 ("No carrier could ensure that it is fully compliant with the Commission's E911 and HAC mandates" if Skype's request for an unfettered right to attach were granted); CTIA Comments at vii ("Skype's Petition ignores the critical role handsets play in network management and is inconsistent with the FCC's E-911 and hearing aid compatibility ('HAC') rules that impose obligations on wireless carriers with regard to handsets."); Sprint Nextel Comments at iii (rescinding carriers' right to manage devices on their networks "would [] undermin[e] [the Commission's] ability to impose many of the social regulatory obligations it now requires of carriers"); Verizon Wireless Comments at iii (noting that Skype's proposal would impair "many technical and social programs" that the Commission implements "through the relationship between wireless carriers and the devices that operate on their networks . . . includ[ing] the wireless E-911 program, hearing aid compatibility, and Congress' plan for a nationwide wireless emergency alert system.").

<sup>80/</sup> See, e.g., VON Comments at 8 (stating that problems caused by the right to attach regarding carrier network management and regulatory compliance "should be part of the consideration of 'harm to the network'").

example, and therefore carriers *must* be able to work with device manufacturers ahead of time to ensure that the service works out of the box, the moment the consumer purchases a handset and activates service. By seeking to sever the close coordination of wireless networks and handsets, Skype's proposal would severely degrade service quality and turn wireless networks into "dumb pipes," reducing carriers' ability to provide attractive, tailored consumer offerings as well as critical public safety services.<sup>81/</sup>

At bottom, Skype and its supporters ignore the technical realities of wireless communications in imagining a parallel universe in which all wireless networks would somehow be the same and consumers could make use of "[a] single device that is interoperable with multiple broadband technologies and network providers."<sup>82/</sup> Reality is quite different. Wireless services employ "different wireless technologies that are in various stages of deployment and evolution" and that "operate in multiple frequency bands."<sup>83/</sup> Thus, "certain handsets simply will not function on certain wireless networks as a technical matter."<sup>84/</sup> As handset manufacturer LG

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<sup>81/</sup> See, e.g., Sprint Nextel Comments at 26 ("A requirement that carriers act only as a 'dumb pipe' would have the collateral effect of eliminating the ability of the carrier to build unique systems to support . . . specific specialized services.").

<sup>82/</sup> API Comments at 7; see also *supra* n.2 (citing Consumers Union form letter, which reads in part, "I want to use my cell phone on any carrier's network!").

<sup>83/</sup> Motorola Comments at 2, 7. "Air interface standards alone have seen 12 iterations between 1988 and today, with fourth generation end-to-end IP networks currently in the standardization process." CTIA Comments at 25. And while "[m]ore sophisticated users understand that different carriers use different air interfaces, . . . most users do not realize . . . that the distinctions between networks does not stop with the air interface chosen. . . . [C]arriers make different choices with respect to power control, voice coding systems ('vocoders'), over-the-air software controls, and numerous other systems that involve the wireless handset." Sprint Nextel Comments at 7-8.

<sup>84/</sup> Motorola Comments at 7.

explains, “[c]arrier networks are not configured to support *every* device, and it would be uneconomical and unwise to require them to do so.”<sup>85/</sup>

The Commission wisely took a hands-off approach to wireless standards, and the diversity of offerings in the U.S. wireless network is a direct result.<sup>86/</sup> As the Schwartz paper points out, carriers therefore “feel pressured to accelerate the deployment of new technologies” and engage in “competitive jockeying to provide superior networks,” yielding substantial consumer benefits.<sup>87/</sup> “[C]arriers [] aggressively compete[] with one another to build more efficient and cost effective networks . . . , le[ading] to rapid leaps in technology, gains in efficiency, and reduced prices to consumers.”<sup>88/</sup> Skype’s proposed regulatory intervention would cut against these consumer benefits, which were generated by the Commission’s deliberate policy of encouraging network technology competition. Moreover, now that heterogeneous network technologies have been unleashed, it is highly doubtful that the Commission could regulate the genie back into the bottle and create a technologically homogenized marketplace.

Nor can the Commission simply regulate away the differences between wireless and wireline broadband. There is no prospect that, even with massive regulatory intervention, the Commission could, as Skype supporters advocate, “ensure that the cell phone Internet experience

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<sup>85/</sup> LG Comments at 4.

<sup>86/</sup> See Report and Order, *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunication Service*, 3 FCC Rcd 7033, 7034 (1988) (“*Cellular Radio Technology*”); see also Verizon Wireless Comments at 44-46.

<sup>87/</sup> Schwartz Paper at 7.

<sup>88/</sup> Sprint Nextel Comments at 8.

is” the same as an Internet experience employing a PC and fixed-line broadband access.<sup>89/</sup>

“[T]he average wireless handset is not just a mini PC; it has capacity limitations, which requires much work to deliver the best user experience.”<sup>90/</sup> Further, “[t]here are enormous difficulties in adjusting applications to run on the small screen of mobile and portable devices, plus there are many other challenges for mobile devices that are not present in other broadband platforms,” including power and battery limits.<sup>91/</sup> Regulation cannot just wipe out real differences in technology.

In sum, the record confirms that the rules Skype and its supporters advocate are entirely inapt and would in fact harm the wireless market. The purportedly “anti-competitive” practices that Skype identifies are pro-consumer measures that carriers use to ensure “the efficient, economical, and secure use of carriers’ wireless networks.”<sup>92/</sup> “In this respect, they are the very types of practices that one would expect to find in a highly competitive market in which carriers vie to deliver the best possible services at the lowest possible prices.”<sup>93/</sup> Carriers have retained the necessary oversight over equipment, applications, and other network uses without interfering with consumer choice — indeed, while presenting consumers with an explosion of competitive offerings.

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<sup>89/</sup> PPH Comments at 3.

<sup>90/</sup> Verizon Wireless Comments at 25.

<sup>91/</sup> *Id.* at 46.

<sup>92/</sup> AT&T Comments at 42.

<sup>93/</sup> *Id.* at 41.

### III. REGULATORY INTERVENTION WOULD HARM THE PROSPERING WIRELESS MARKET TO THE DETRIMENT OF CONSUMERS.

As Chairman Martin recently observed, “[w]hen a regulatory issue” is presented to the Commission, the first instinct should be “to pick the action that will help facilitate and promote competition, innovation, and consumer choice.”<sup>94/</sup> To be sure, that action may sometimes be to impose regulation. But, the Commission has firmly established that this is *not* the case in a market that is competitive and indisputably serves consumer needs. In such instances, regulation, which is always less dynamic and flexible than the marketplace, usually has unforeseen and unfortunate consequences. The Commission applied this insight in its decision — highly relevant here — to exempt DBS providers from the set-top box rules, lest regulation interfere with the consumer benefits the market was already providing.<sup>95/</sup> The Commission took the same approach in consistently adopting deregulatory policies for wireless services — as did Congress.<sup>96/</sup>

That caution should guide the Commission here, too. As discussed above, the wireless service and equipment markets already are accomplishing everything that is promised by competitive market forces. Regulators cannot hope to “do better” by imposing rules. Even if those rules were simply an effort to capture existing market benefits, they would inevitably impose rigidities that would reduce consumer benefits going forward.

This would be particularly true in the wireless marketplace. As the record demonstrates, wireless practices reflect the carriers’ efforts to best each other in meeting consumer needs in an

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<sup>94/</sup> *NCTA Remarks* at \*2.

<sup>95/</sup> *See supra* p. 11-12.

<sup>96/</sup> *See T-Mobile Comments* at 28-30 (detailing same).

environment of rapidly changing technology, spectrum scarcity, and close interdependence between networks, handsets, and applications. Imposing behavioral rules would only deny carriers the flexibility to introduce innovative offerings that depend on integrated capabilities in networks and handsets and the ability to act in a timely way if developments in this dynamic environment threaten to harm the network or impair quality of service.<sup>97/</sup> As noted above and in T-Mobile's initial comments, the ability to act quickly was essential to implementing a pro-consumer approach to weathering a spectrum shortage in New York without compromising consumers' quality of service.<sup>98/</sup> Similarly, prompt action was necessary for Verizon Wireless to eliminate interference on its network caused by a single improper device that "negatively impacted nearly 200 surrounding cell sites" and "resulted in tens of thousands of blocked voice and data sessions."<sup>99/</sup> The required flexibility cannot be captured in a regulatory mandate — even one that purports to carve out harmful equipment or applications from any "net neutrality" prescription. No matter how carefully the Commission might try to word its rules to preserve the flexibility that carriers need, the very involvement of regulators and regulatory processes in decisions that are now driven by market forces and technological changes would diminish carriers' ability to respond to marketplace and technological developments.

Service innovation and quality of service are not all that would suffer. Law enforcement and public safety objectives could be frustrated as well. As discussed above, E911 and EAS,

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<sup>97/</sup> "Skype's proposal would disrupt this cooperative process and potentially eliminate the ability of carriers to provide unique services such as this at all. . . . This disruption of the current applications market would reduce the services available to consumers, not increase them." Sprint Nextel at 25-26.

<sup>98/</sup> See T-Mobile Comments at 38-39.

<sup>99/</sup> Verizon Wireless Comments at 34-35.

among other services, may *require* close coordination of handsets and networks. And, as Verizon Wireless suggests, if carriers cannot limit applications, end users may utilize “encrypted applications that could impede law enforcement’s ability to engage in lawful surveillance.”<sup>100/</sup> Finally, interference or faulty and/or unreliable equipment can make a consumer’s handset useless when the time comes to place an emergency call. The public interest would suffer concrete harm from these unintended consequences.

Regulatory intervention also risks “discourag[ing] continued capital investment that is essential for broadband deployment [and innovation].”<sup>101/</sup> If carriers are precluded from developing unique offerings — or if their ability to do so is encumbered by rules designed to ensure that every network innovation can immediately be used by every handset manufacturer and every application developer — service offerings would devolve toward undifferentiated transport, and new services would begin to plateau and possibly even disappear. There is no surer way to kill carriers’ incentives to invest in implementing new technologies.<sup>102/</sup> At risk is a trend that saw wireless carriers investing “more than \$20 billion in capital expenditures *each* year between 2001 and 2005.”<sup>103/</sup> In short — in an effort to preserve choice in a market that already *delivers* choice — regulators instead could find themselves presiding over a market in which innovation slows, broadband expansion that might otherwise have supported and even driven new applications stumbles, and the economy suffers a loss of one of its major drivers.

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

<sup>101/</sup> Verizon Wireless Comments at ii.

<sup>102/</sup> *See, e.g., id.* at iii.

<sup>103/</sup> AT&T Comments at 13-14; *see also supra* n.46.

Indeed, even VON, ITI, and CEA, who seek more limited Commission action, note the serious risks involved, including “unnecessarily constrain[ing] technological development and innovation,”<sup>104/</sup> “upset[ting] the benefits and innovations that consumers already enjoy in a market for wireless services that is significantly more competitive than the market for wired services,” “upset[ting] the technical roadmaps for next generation wireless architectures, in whose development industry standards-setting bodies, service providers, and manufacturers have expended considerable time, effort, and resources,” and “forc[ing] onto consumers significantly higher retail pricing for wireless devices” and services.<sup>105/</sup> Their suggestion that the Commission nevertheless should act to apply the principles of its 2005 *Internet Policy Statement* to wireless therefore makes little sense.<sup>106/</sup>

Chairman Martin has noted that the principles of the *Internet Policy Statement* “were not adopted for one particular forum.”<sup>107/</sup> At the same time, the Commission has not acted to apply the *Internet Policy Statement* to any specific services and, if it were to do so, wireless would be the least rational place to start. The Commission has extended the deregulatory approach of its

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<sup>104/</sup> VON Comments at 8-9.

<sup>105/</sup> ITI Comments at 6-7; *see also* CEA Comments at 2-3 (recognizing constraints imposed by unique wireless network management issues, security requirements, capacity constraints, and regulations).

<sup>106/</sup> CEA Comments 2; ITI Comments at 1; VON Comments at 2, citing Policy Statement, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, 00-185, 02-52, FCC 05-151 (rel. Sept. 23, 2005) (“*Internet Policy Statement*”).

<sup>107/</sup> Lynn Stanton, “Martin: Broadband Principles Apply to All Platforms,” *TRDaily*, May 8, 2007, at 1-2.

*Cable Modem Order*<sup>108/</sup> successively to wireline broadband services,<sup>109/</sup> broadband over power lines,<sup>110/</sup> and wireless broadband services.<sup>111/</sup> In no instance did it act specifically to apply the *Internet Policy Statement*, which was adopted concurrently with the *Wireline Broadband Order*, in the context of a specific platform or service.<sup>112/</sup> Indeed, as Commissioner Cops observed when concurring in the *Wireless Broadband Order*, the Commission would need to “open a rulemaking . . . [to] clarify how these Title I principles should be applied in the wireless context.”<sup>113/</sup>

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<sup>108/</sup> See Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to Internet Over Cable and Other Facilities*, GN Docket No. 00-185, CS Docket No. 02-52, 17 FCC Rcd 4798 (2002) (reclassifying cable modem services as Title I information services) (“*FCC Cable Modem Order*”), *aff’d*, *National Cable & Telecomm. Ass’n v. Brand X Internet Servs.*, 125 S. Ct. 2688 (2005).

<sup>109/</sup> See Report and Order and Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, (2005) (“*Wireline Broadband Order*”) (classifying IP-based wireline broadband services as Title I information services).

<sup>110/</sup> See Memorandum Opinion and Order, *United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, 21 FCC Rcd 13281 (2006) (classifying IP-based BPL services as Title I information services).

<sup>111/</sup> See Declaratory Ruling, *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, WT Docket No. 07-53, FCC 07-30 (rel. Mar. 23, 2007) (“*Wireless Broadband Order*”) (classifying IP-based wireless services as Title I information services).

<sup>112/</sup> The Commission has accepted voluntary commitments to apply the principles in connection with certain mergers. See, e.g., Memorandum Opinion and Order, *Verizon Communications, Inc. and MCI, Inc. Applications for Transfer of Control*, 20 FCC Rcd 18433, 18436-37 ¶ 3 (Nov. 17, 2005) (adopting voluntary compliance with Internet Policy Statement as express condition of merger approval).

<sup>113/</sup> Concurring Statement of Commissioner Cops, *Wireless Broadband Order*, at 2 (“I would have preferred that today’s reclassification item contain an NPRM teeing up these issues for wireless networks.”).

There is absolutely no occasion to take such action with respect to wireless services, where it is least needed and would face the greatest complexity. Wireless services are the most competitive and innovative sector the Commission oversees, as Chairman Martin has acknowledged and as this record overwhelmingly establishes.<sup>114/</sup> And, as the record also shows, applying access principles to the wireless marketplace would raise significantly more technological and economic concerns than in any other sector of the communications industry. So why act to apply the principles to this sector? The rationale that VON advances is that doing so would “foster[] consumer choice and help[] accelerate widespread access to new services and applications.”<sup>115/</sup> But if this record establishes anything, it is that the wireless sector exhibits no evidence of any market failure necessitating such action. Indeed, by the Commission’s own assessment, the wireless industry has been a shining example of successful market competition and innovation that benefits consumers.<sup>116/</sup>

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<sup>114/</sup> Stephen Lawson, *FCC Chief: Wireless Key to Universal Service Access*, InfoWorld, Mar. 27, 2007, available at [http://www.infoworld.com/article/07/03/27/HNfccchief\\_1.html](http://www.infoworld.com/article/07/03/27/HNfccchief_1.html) (“The wireless industry is the most competitive of all the sectors that [the Commission] regulate[s].”) (quoting Chairman Martin).

<sup>115/</sup> VON Comments at 6.

<sup>116/</sup> See, e.g., *11th Annual CMRS Competition Report* at 10951 ¶ 5 (stating that “competition between wireless carriers continues to yield significant benefits to consumers”); *id.*, Statement of Chairman Martin at 1 (stating that “[t]his year’s Competition Report demonstrates that the competitive marketplace for wireless services is continuing to bring consumers more choice, better services, and lower prices” and that “[t]hese results demonstrate how a competitive marketplace — rather than economic regulation — provides the greatest benefits to the American consumer”); *id.*, Statement of Commissioner McDowell at 1 (noting that “[c]onsumers have benefited from this [wireless] competition — new services abound and prices have declined”); Stephen Lawson, *FCC Chief: Wireless Key to Universal Service Access*, InfoWorld, Mar. 27, 2007, available at [http://www.infoworld.com/article/07/03/27/HNfccchief\\_1.html](http://www.infoworld.com/article/07/03/27/HNfccchief_1.html) (“The wireless industry is the most competitive of all the sectors that [the Commission] regulate[s].”) (quoting Chairman Martin).

Applying the principles to wireless would be further problematic because doing so would be seen by many as the first step in re-regulating wireless services. Not surprisingly, a few commenters in this proceeding already have gone *beyond* what Skype requests (and certainly beyond what VON, ITI, and CEA request). AD HOC, Consumers Union, and PPH, for example, have used this proceeding to advocate a full suite of “network neutrality regulations,” patterned after the net neutrality proposals that have generated massive controversy in the wireline realm. While such proposals have no place in this docket — and should fail for all the reasons discussed above — their introduction here illustrates how slippery the path from unnecessary “principles” to overbearing, invasive, and harmful regulation could be. The Commission has the opportunity here to reaffirm that the deregulatory line it has drawn around the wireless market stands fast. Regulators, like physicians, should be guided by the maxim, “first, do no harm.” The Commission should follow that maxim here by declining to intervene in a marketplace that is a textbook success of nonregulated competition.

## CONCLUSION

For these reasons, the Skype petition should be dismissed in its entirety.

Respectfully submitted,

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