

**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 WCAI**

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October 12, 2010

1333 H Street  
Suite 700 West  
Washington, DC 20005  
(202) 452-7823



The Wireless Communications Association International, Inc. (“WCAI”), the trade association of the wireless broadband industry, submits these comments on the Commission’s *Public Notice* released on September 1, 2010.<sup>1</sup>

## I. EXECUTIVE SUMMARY

WCAI agrees with the Commission’s conclusion that the record in this proceeding<sup>2</sup> regarding the proposed application of open Internet regulations to mobile broadband is currently underdeveloped. Rather than conduct an analysis of the mobile broadband market, proponents of applying open Internet regulations rely on a false analogy to support their position: they argue that because fixed broadband (an “apple”) and mobile broadband (an “orange”) both use the Internet (i.e., they are both “fruit”), they should both be subject to the same regulatory treatment.<sup>3</sup> But, as the old adage says, “apples” and “oranges” are not comparable, and although both fixed and mobile broadband do use the Internet, they otherwise bear little similarity. Their differences are critical to the applicability of open Internet regulation, because their similarity (they both use the Internet) is *irrelevant* to determining whether regulation is appropriate. Whether open Internet regulation is appropriate depends

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<sup>1</sup> Public Notice, *Further Inquiry into Two Under-Developed Issues in the Open Internet Proceeding*, DA 10-1667, GN Docket No. 09-191, WC Docket No. 07-52 (rel. Sep. 1, 2010) (“*Public Notice*”).

<sup>2</sup> *Preserving the Open Internet*, Notice of Proposed Rulemaking, 24 FCC Rcd. 13064 (2009) (“*NPRM*”).

<sup>3</sup> See, e.g., Comments of Public Knowledge, GN Docket No. 09-191 (filed Jan. 14, 2010) at 18 (arguing that “the attributes of broadband Internet service hold true regardless of the platform used to deliver access to customers”); Comments of Free Press, GN Docket No. 09-191 (filed Jan. 14, 2010) at 21-22 (arguing for a “even playing field” for fixed and mobile broadband); Comments of NCTA, GN Docket No. 09-191 (filed Jan. 14, 2010) at 46 (arguing that “principles of regulatory parity dictate that marketplace outcomes not be unfairly and uneconomically skewed by artificial regulatory advantages”).

on market analysis – and fixed broadband and mobile broadband serve *different* product markets and have very *different* market structures. The structure of the mobile broadband market evidences no need for open Internet regulation, and because fixed broadband is a different product market than mobile broadband, arguments that they must nevertheless be treated the same for the purpose of open Internet regulations are as invalid as comparing “apples” to “oranges”.

In the absence of an appropriate market analysis, it is impossible to make a data-driven decision regarding the applicability of open Internet regulations to mobile broadband. In the discussion below, WCAI demonstrates that fixed and mobile broadband compete in different product markets,<sup>4</sup> and that the retail segment of the separate mobile broadband market is effectively competitive. WCAI also demonstrates that other proposed bases for imposing open Internet regulation on mobile broadband providers are either unlawful or arbitrary and capricious. Even in the absence of open Internet regulation, innovation and competition among mobile broadband devices and applications is exploding. And, even if mobile broadband providers were classified as common carriers, the level of competition in the mobile broadband market precludes the application of an anti-discrimination rule, because the Act provides that discriminatory pricing is not unreasonable in a competitive market. Finally, the competitive nature of the mobile market also mitigates any free speech concerns.

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<sup>4</sup> WCAI expresses no opinion regarding the appropriate regulatory treatment of fixed broadband providers.

The Commission has noted that there are “technological, structural, consumer usage and historical differences” between wireless and wired networks, and asked in the *NPRM* whether these differences are relevant to the Commission’s regulatory treatment of these services.<sup>5</sup> The data discussed below demonstrates that these differences are relevant – and that there simply is no basis for the imposition of open Internet regulations in the mobile market.

## II. DISCUSSION

### A. Mobile broadband providers lack market power.

One of the primary bases proffered for imposing open Internet regulations on fixed broadband providers is “that the market for broadband is a duopoly.”<sup>6</sup> Based on this assertion, proponents of open Internet regulation conclude that regulation of all broadband service providers, including mobile broadband providers, is necessary to prevent anticompetitive behavior.<sup>7</sup> To the extent the proposed justification for imposing open Internet regulations on all broadband providers is based on market power,<sup>8</sup> however, the Commission must use an appropriate framework for market analysis. The threshold question in any market analysis is the definition of the market, i.e., the relevant product market and its participants.<sup>9</sup> Once the market is defined, the question is whether the relevant participants in that market are subject

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<sup>5</sup> *NPRM* at ¶ 154.

<sup>6</sup> Reply Comments of Free Press, GN Docket No. 09-191 (filed Apr. 26, 2010) at 44.

<sup>7</sup> See Reply Comments of Free Press, GN Docket No. 09-191 (filed Apr. 26, 2010) at 50-51.

<sup>8</sup> See *NPRM* at ¶¶ 67-74. The Commission defines market power as “the ability to profitably charge prices above cost for a sustained period of time due to a lack of competitive constraints.” See *14th Mobile Wireless Competition Report*, FCC 10-81 at ¶ 12 (rel. May 20, 2010) (14<sup>th</sup> Report).

<sup>9</sup> *Sprint Nextel Order*, 20 FCC Rcd. 13967, ¶ 32 (2005).

to effective competition. In the absence of a market failure, the “market power” theory does not provide a rational basis for the imposition of open Internet regulation.

In the market analysis set forth below, WCAI demonstrates that mobile broadband providers do not occupy the same product market as fixed broadband providers, and that the separate mobile broadband product market is effectively competitive. Market analysis thus does not provide a rational basis for imposing open Internet regulations on mobile broadband service providers.

**i. Fixed and mobile broadband providers do not occupy the same product market.**

To determine the appropriate market for analysis, the Commission begins by “identifying relevant market participants,”<sup>10</sup> i.e., whether fixed and mobile broadband providers both participate in the same product market. If the answer to this threshold question is “no,” mobile broadband providers would not be relevant market participants in the fixed broadband market; a finding of market failure in the fixed broadband market based on duopoly concerns would be *irrelevant* to the mobile broadband market, and competition in the mobile broadband market would need to be separately analyzed. If the answer to the threshold question is “yes,” fixed and mobile broadband providers would have to be considered together in a combined fixed/mobile broadband market in any competitive market analysis – and the argument that the fixed broadband market is a duopoly would be clearly wrong. In either case, if a market failure is found, the Commission would need to find that the

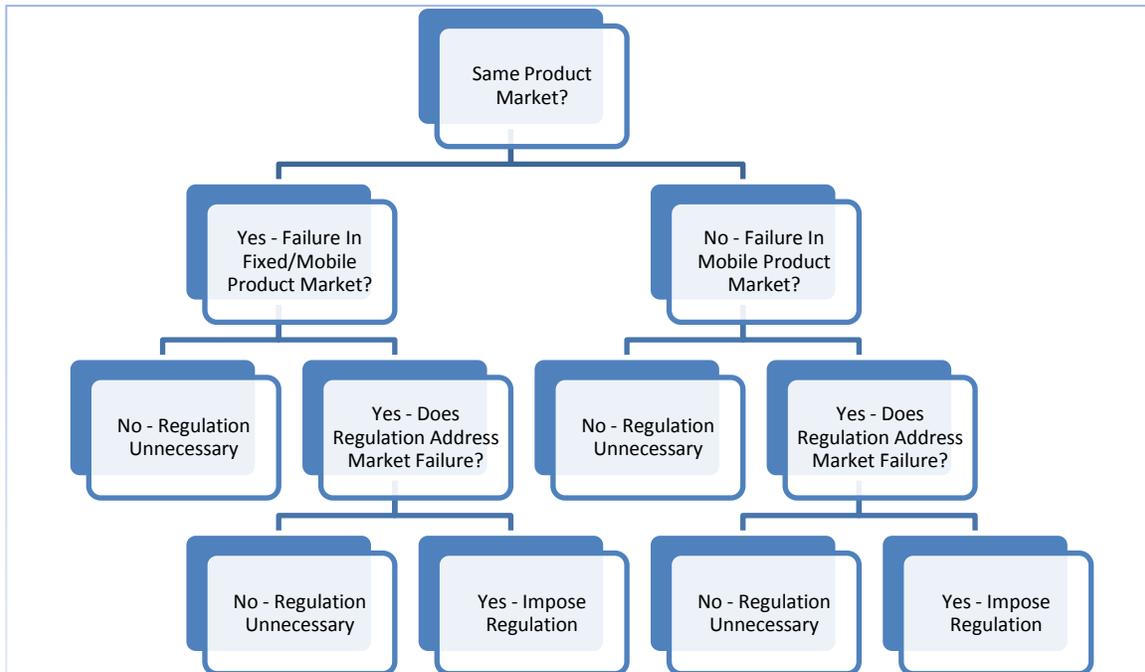
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<sup>10</sup> *Sprint Nextel Order*, 20 FCC Rcd. 13967, ¶ 32 (2005).

open Internet regulations it intends to impose actually address the market failure.

This data-driven analytic framework is depicted in Table 1.

**Table 1**



“A relevant market includes ‘all products that consumers consider reasonably interchangeable for the same purposes.’”<sup>11</sup> As WCAI noted in its initial comments in this proceeding, mobile broadband is a separate product market from fixed broadband,<sup>12</sup> a view supported by other commenters in this proceeding.<sup>13</sup> Open

<sup>11</sup> *Sprint Nextel Order*, 20 FCC Rcd. 13967, ¶ 39 (2005) (quoting *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956)). In the economic literature, a relevant product market is defined as the smallest group of competing products or services for which a hypothetical monopolist in a geographic area could profitably impose at least a “small but significant and non-transitory price increase,” presuming no change in the terms of sale of other products. *Id.* Product market analysis is used in evaluating the potential for competitive harm as a result of a merger or other transaction because the “level of competition depends on what products or services are substitutes for each other.” *Applications of AT&T Wireless Services, Inc., Transferor, and Cingular Wireless, Corp., Transferee*, Memorandum Opinion and Order, 19 FCC Rcd. 21522, ¶ 57 (2004) (“*Cingular-AT&T Order*”).

<sup>12</sup> See Comments of WCAI, GN Docket No. 09-191 (filed Jan. 14, 2010) at 14.

<sup>13</sup> See Reply Comments of Free Press at 45.

Internet regulations are intended to address Internet applications, devices and content. The applications, devices, and, increasingly, the websites<sup>14</sup> consumers use with mobile broadband services are different than those used by consumers with wired broadband services. For example, consumers do not consider a desktop computer and a smartphone to be “reasonably interchangeable.”

The Commission itself “has already delineated between mobile and fixed wireline broadband product markets in the context of its orders addressing various merger and other transactions.”<sup>15</sup>

In the *Cingular-AT&T Order*, the Commission found:

few customers would substitute other telecommunication services, such as wireline services, for mobile telephony services. Customers of mobile telephony services are unlikely to find wireline services to be close substitutes because wireline services *lack the mobility dimension* of wireless services. However, some consumers may find wireless services to be a good substitute for wireline service.<sup>16</sup>

Subsequently, in the *Sprint-Clearwire Order*,<sup>17</sup> the Commission found that there were separate product markets for (1) mobile telephony/broadband services and (2) fixed broadband services. Specifically, the Commission determined that the combined product market for mobile telephony/broadband services includes mobile telephony services and emerging, next-generation mobile broadband services.<sup>18</sup>

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<sup>14</sup> See <http://www.allaboutsymbian.com/news/item/12050-As-mobile-looks-to-overtakes-d.php> (visited Sep. 30, 2010).

<sup>15</sup> See WCAI Comments, GN Docket No. 09-40 (filed Apr. 9, 2009) at 4.

<sup>16</sup> *Cingular-AT&T Order*, 19 FCC Rcd 21522, ¶ 74, n. 267 (emphasis added).

<sup>17</sup> *Sprint Nextel Corp. and Clearwire Corp.*, FCC 08-259 (rel. Nov. 7, 2008) at ¶ 26 (“*Sprint-Clearwire Order*”).

<sup>18</sup> *Id.* at ¶ 38.

Conversely, the Commission defined the fixed broadband services market consistently with previous definitions applied in the fixed service context, which exclude mobility.<sup>19</sup> In other words, the Commission expressly determined that, for purposes of market analysis, fixed and mobile broadband really are as dissimilar as apples and oranges.

Based on this substantial body of Commission precedent and the record in this proceeding, it is clear that fixed and mobile broadband providers do not occupy the same product market for the purpose of open Internet regulation. The argument that both fixed and mobile broadband should be regulated in the same way to ensure an “even playing field”<sup>20</sup> is thus nonsensical (i.e., arbitrary and capricious), because mobile and fixed broadband are *not* playing on the *same* field. Arguments that the broadband market is a duopoly are likewise irrelevant to whether open Internet regulations should be imposed on mobile broadband providers. The relevant question is whether mobile broadband providers possess sufficient market power to warrant the imposition of open Internet regulations, i.e., whether the retail market for mobile services, including devices and applications, is effectively competitive.

**ii. The retail market for mobile broadband services is effectively competitive.**

The Commission itself has found that the combined market for mobile telephony/broadband services is effectively competitive, i.e., that mobile providers

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<sup>19</sup> *Id.* at ¶ 46. The Commission also separately analyzed fixed and mobile broadband access and penetration in its most recent 706 Report. *See Internet Access Services: Status as of June 30, 2009*, Industry Analysis and Technology Division, Wireline Competition Bureau (rel. Sep. 2, 2010).

<sup>20</sup> See Comments of NCTA at 52.

do not possess market power in the retail mobile market;<sup>21</sup> and the current record in this proceeding lacks evidence sufficient to support a reversal of the Commission's previous findings regarding retail competition. The available evidence overwhelmingly demonstrates that the mobile telephony/ broadband services retail market continues to be effectively competitive and that competition and consumer choice is increasing in the area that open Internet regulations are intended to address: devices and applications.

In its 14<sup>th</sup> Report, which "integrates . . . an analysis of all mobile wireless services,"<sup>22</sup> the Commission analyzed mobile industry structure, provider conduct, market performance, and consumer behavior. The analysis below applies the same analytical framework to the retail segment of the mobile market with relevant comparisons to the 13<sup>th</sup> Report finding effective competition. This analysis also includes discussion of another component of innovation and competition in the mobile market that is particularly relevant to open Internet regulation – business model innovation. The analysis indicates that competition in the retail segment of the mobile market is increasing and that there is no segment of the retail market that is

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<sup>21</sup> See, e.g., *13th CMRS Competition Report*, DA 09-54 (rel. Jan. 16, 2009) (13<sup>th</sup> Report); *12th CMRS Competition Report*, FCC 08-28 (rel. Feb. 4, 2008).

<sup>22</sup> This integrated analysis further confirms the Commission's finding in the *Sprint-Clearwire Order* that there is a combined mobile telephony/broadband services market. As the Commission expressly notes in the 14<sup>th</sup> Report: "[O]ur analysis of the mobile wireless services industry includes voice, messaging, and broadband services because they often jointly use the same spectrum, network facilities, and customer equipment; and many mobile providers have integrated the marketing of these services, often offering them in bundles." 14<sup>th</sup> Report at ¶ 8.

experiencing a market failure that would be addressed by open Internet regulations.<sup>23</sup>

**a) The structure of the mobile market indicates there is effective competition in the retail market for mobile services.**

This portion of the analysis considers the number of mobile competitors, market concentration, and the potential entry and exit of mobile competitors.<sup>24</sup>

*Number of Facilities-Based Providers.* The percentage of the U.S. population covered by three, four, and five mobile providers increased from July 2008 to November 2009. According to the Commission's 14<sup>th</sup> Report, in October-November 2009, more than ninety five percent (95.8%) of the U.S. population was covered by three (3) or more mobile service providers; more than ninety percent (90.9%) of the U.S. population was covered by four (4) or more mobile service providers; and more than seventy three percent (73.8%) of the U.S. population was covered by five (5) or more mobile service providers (see Table 2 below).<sup>25</sup>

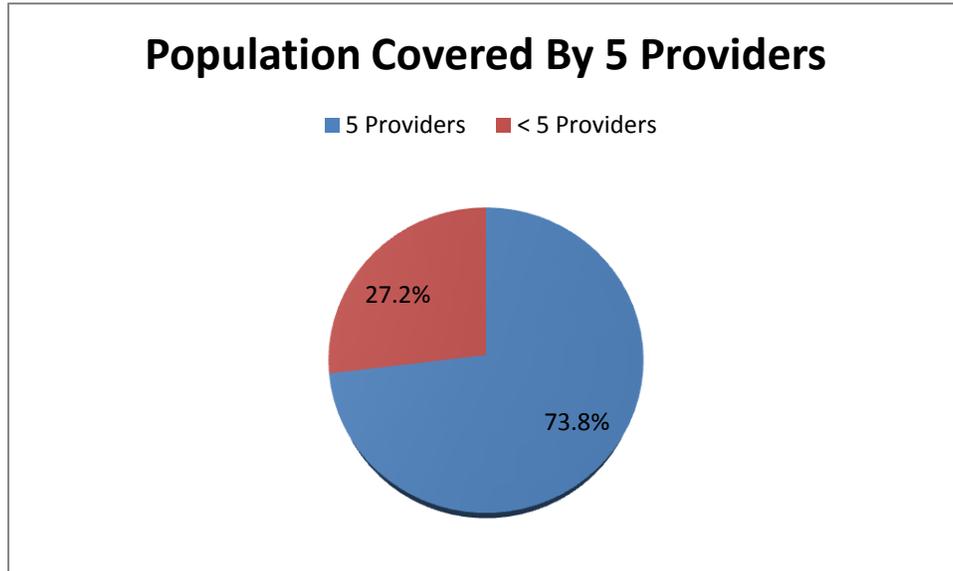
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<sup>23</sup> This analysis does not address the input segments of the mobile market, in which there is controversy regarding the level of competition, because open Internet regulations would not produce a superior outcome in those segments of the mobile market in any event.

<sup>24</sup> See 14<sup>th</sup> Report at ¶ 12.

<sup>25</sup> 14<sup>th</sup> Report at ¶ 42, Table 4.

**Table 2**



According to the 13<sup>th</sup> Report, the percentage of U.S. population covered by three, four, and five mobile providers in July 2008 was 95.5%, 90.5%, and 64.9%, respectively.

The most significant increase was in the percentage of population covered by five providers, which increased from 64.9% in the 13<sup>th</sup> Report to 73.8% in the 14<sup>th</sup> Report, an increase of 8.9%.

*Market Concentration.* When compared internationally, the U.S. mobile market continues to have the *lowest* Herfindahl-Hirschman Index (“HHI”) among comparable countries in Western Europe and the Asia Pacific region.<sup>26</sup> The Commission uses HHI to measure market concentration, which allows a comparison of different distributions of providers’ shares of retail subscribers using a common index.<sup>27</sup> High market concentration is one indicator of potential market power in the retail market,

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<sup>26</sup> 14<sup>th</sup> Report at ¶ 365, Table 41.

<sup>27</sup> 14<sup>th</sup> Report at ¶ 49.

but is not synonymous with market power – market concentration, by itself, is an imperfect indicator of market power.<sup>28</sup>

Although the number of competitive choices available to many U.S. consumers has increased, market concentration has also increased slightly since the 13<sup>th</sup> Report. The Commission uses a facilities-based provider's number of subscribers measured at the Economic Area ("EA") level as a proxy for the provider's actual output,<sup>29</sup> and then calculates the weighted average of the HHIs (weighted by EA population).<sup>30</sup> Using this methodology, the weighted average of the EA-based HHIs was 2848 at the end of 2008, up from 2674 at the end of 2007, an increase of 6.5 percent.<sup>31</sup> This increase largely reflects several mergers that occurred in 2008 as well as the 2009 merger of Verizon Wireless and Alltel (which likely had the most significant impact on subscriber levels during the period).<sup>32</sup> Because the FCC found that these mergers would *not* cause competitive harm, this increase in HHI is not competitively significant.

*Entry and Exit of Mobile Competitors.* The 14<sup>th</sup> Report summarized entry commitments "large enough to be consistent with entry that could introduce new competitive constraints at the regional or national level."<sup>33</sup> The summaries included Clearwire, MetroPCS, Leap, and Cox Communications. Since the 14<sup>th</sup> Report was

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<sup>28</sup> 14<sup>th</sup> Report at ¶ 55.

<sup>29</sup> 14<sup>th</sup> Report at ¶ 50.

<sup>30</sup> 14<sup>th</sup> Report at ¶¶ 50-51.

<sup>31</sup> 14<sup>th</sup> Report at ¶ 51.

<sup>32</sup> See 14<sup>th</sup> Report at ¶ 51.

<sup>33</sup> See 14<sup>th</sup> Report at ¶ 68.

issued, all of these potential entrants have either begun or continued to deploy their mobile networks, and a completely new potential nationwide entrant has emerged.

- The 14<sup>th</sup> Report noted that, as of December 31, 2009, Clearwire's U.S. WiMAX network covered 27 markets and approximately 34.5 million people.<sup>34</sup> Since then Clearwire has continued to expand its 4G network coverage and recently announced that its network now covers 56 markets and approximately 66 million people, which is approximately double the number of markets and population Clearwire served at the end of last year.<sup>35</sup>
- MetroPCS recently became the first mobile operator to launch commercial 4G LTE services in the United States, and is also offering the world's first commercially available 4G LTE enabled handset.<sup>36</sup>
- As of August 2010, Leap increased the coverage of its 3G data network from 80.5 million people in October 2009 to approximately 92 million people, an increase of 11.5 million; and recently announced a 3G data roaming plan that allows it to offer service to 280 million people.<sup>37</sup>
- Cox Communications launched its 3G network in 3 markets in late 2009,<sup>38</sup> and began LTE trials in 2010.<sup>39</sup>

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<sup>34</sup> See 14<sup>th</sup> Report at ¶ 70.

<sup>35</sup> See <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-newsArticle&ID=1477463&highlight=> (visited Sep. 30, 2010).

<sup>36</sup> See <http://www.metropcs.com/presscenter/articles/mpcs-news-20100921.aspx> (visited Sep. 30, 2010).

<sup>37</sup> See <http://phx.corporate-ir.net/phoenix.zhtml?c=191722&p=irol-newsArticle&ID=1455909&highlight=> (visited Sep. 30, 2010).

<sup>38</sup> See <http://cox.mediaroom.com/index.php?s=43&item=457> (visited Sep. 30, 2010).

<sup>39</sup> See <http://cox.mediaroom.com/index.php?s=43&item=469> (visited Sep. 30, 2010).

- T-Mobile recently announced that its HSPA+ broadband network now covers 100 million people in 55 major metropolitan areas across the country.<sup>40</sup>
- Since the 14<sup>th</sup> Report was issued, an entirely new competitor has announced its plans to enter the mobile broadband market; LightSquared has signed an 8-year agreement with Nokia Siemens Networks worth \$7 billion to deploy, install, operate, and maintain a new 4G-LTE mobile broadband network.<sup>41</sup>

Considered as a whole, changes in the market structure of the mobile industry indicate that the industry is *more* competitive now than it was when the Commission last determined the mobile retail market was effectively competitive (in the 13<sup>th</sup> Report). More people are covered by more providers; a slight increase in market concentration is primarily a result of mergers the Commission found would not harm competition; and several new competitors have entered or have announced plans to enter the market.

**b) Provider conduct in the mobile market indicates there is effective competition in the retail market for mobile services.**

In analyzing provider conduct, the Commission examines both price and non-price rivalry. Non-price rivalry includes product differentiation, network investment and technology upgrades, advertising and marketing, and innovation.<sup>42</sup> In its 14<sup>th</sup> Report, the Commission found continued competition in provider conduct:

During 2008 and 2009, mobile wireless service providers continued to compete on the basis of pricing plans as well as on various non-price

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<sup>40</sup> See <http://press.t-mobile.com/articles/T-Mobile-G2-with-Google> (visited Sep. 30, 2010).

<sup>41</sup> See <http://www.skyterra.com/media/press-releases-view.cfm?id=226&yr=2010> (visited Sep. 30, 2010).

<sup>42</sup> 14<sup>th</sup> Report at ¶ 13.

factors, such as network upgrades; product information and perception, which include advertising and marketing; and downstream product differentiation, which includes handset/device and application offerings.<sup>43</sup>

As discussed below, this competition has intensified since the 14<sup>th</sup> Report was issued.

*Price Rivalry:* From the 13<sup>th</sup> Report to the 14<sup>th</sup> Report, price rivalry in the post-paid segment of the retail mobile market consisted primarily of “new features added to existing price plans, new unlimited calling plans, and ancillary terms and conditions.”<sup>44</sup> The 14<sup>th</sup> Report found that the “focus of price competition now appears to be shifting to unlimited service offerings.”<sup>45</sup> As a result of T-Mobile lowering its prices on unlimited plans, AT&T and Verizon Wireless both responded with “significant” price cuts.<sup>46</sup> AT&T and Verizon nevertheless continued to charge more for their unlimited plans than T-Mobile or Sprint Nextel – which indicates that there is no collusion in pricing.<sup>47</sup> Since the 14<sup>th</sup> Report was released, AT&T introduced new usage-based wireless data plans “that make it more affordable for more people to enjoy the benefits of the mobile Internet.”<sup>48</sup> The new plans replaced AT&T’s then existing \$29.99 unlimited data plan with an “entry level” 200 megabyte per month plan priced at \$15 and a “pro” plan offering 2 GB of data usage a month for \$25.<sup>49</sup>

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<sup>43</sup> 14<sup>th</sup> Report at ¶ 89.

<sup>44</sup> 14<sup>th</sup> Report at ¶ 89.

<sup>45</sup> 14<sup>th</sup> Report at ¶ 91.

<sup>46</sup> 14<sup>th</sup> Report at ¶ 92.

<sup>47</sup> See 14<sup>th</sup> Report at ¶ 92.

<sup>48</sup> See <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30854> (visited Sep. 30, 2010).

<sup>49</sup> See <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30854> (visited Sep. 30, 2010).

Lower prices for unlimited offerings and new pricing plans for data offerings both indicate that there continues to be significant price rivalry in the post-paid segment of the mobile market.

Price rivalry is also strong in the prepaid segment of the retail mobile market. This segment has been moving from per minute charges to unlimited prepaid offerings. “Prepaid service providers have been the most aggressive in cutting the price of unlimited service offerings.”<sup>50</sup> According to one analyst, “all-you can-eat plans have dropped by as much as 55 percent since the first unlimited national flat-rate calling plan was launched by Verizon Wireless in February 2008.”<sup>51</sup>

*Non-Price Rivalry.* Competition has been particularly strong in the three primary categories of non-price rivalry considered by the Commission: 1) network upgrades; 2) product information and perception, which include advertising and marketing; and 3) downstream product differentiation, which includes handset/device and application offerings.

In the 14<sup>th</sup> Report, the Commission found that, “[d]uring 2008 and 2009, mobile wireless service providers continued to improve the coverage, capacity, and capabilities of their networks, focusing largely on the upgrade and expansion of mobile broadband networks to enable high-speed Internet access and other data services for their customers.”<sup>52</sup> As noted above, since the report was released, MetroPCS has deployed the first LTE network and LTE ready handset, and many other service providers continue to expand their 3G and 4G networks. Other service

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<sup>50</sup> 14<sup>th</sup> Report at ¶ 102.

<sup>51</sup> 14<sup>th</sup> Report at ¶ 102.

<sup>52</sup> 14<sup>th</sup> Report at ¶ 105.

providers have accelerated their plans. In response to competitive pressure from Clearwire and Verizon Wireless, AT&T recently announced that it is accelerating its LTE deployment plans to cover 70 to 75 million people by the end of 2011.<sup>53</sup> Network deployment and upgrades thus continue to evidence strong non-price rivalry.

“Advertising spending by wireless service providers in 2008 and 2009 fell slightly from its 2007 levels . . . .”<sup>54</sup> But, “[d]espite the drop in overall advertising spending, wireless service providers continued to spend more on advertising than firms in many other industries.”<sup>55</sup> The downward trend in advertising by mobile providers was part of a larger downward trend in advertising in 2009, in which U.S. ad spending fell by nine percent (9%) according to Nielsen (compared to only 8.2% for mobile service providers).<sup>56</sup> Although advertising by service providers was down slightly in 2009, ad spending by mobile device makers rose one hundred twenty percent (120%) in 2009 according to Nielsen.<sup>57</sup> Given that the decrease in service provider advertising in 2009 was consistent with overall trends and that device maker advertising more than doubled, advertising metrics continue to exhibit non-price rivalry in the retail mobile market.

Perhaps the most competitive area in the retail mobile market is in downstream product differentiation, which includes handset/device and application

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<sup>53</sup> See <http://www.rethink-wireless.com/2010/09/20/att-brings-forward-lte-plan.htm> (visited Sep. 30, 2010).

<sup>54</sup> 14<sup>th</sup> Report at ¶ 128.

<sup>55</sup> 14<sup>th</sup> Report at ¶ 129.

<sup>56</sup> See <http://blog.nielsen.com/nielsenwire/consumer/u-s-ad-spend-falls-nine-percent-in-2009-nielsen-says/> (visited Sep. 30, 2010).

<sup>57</sup> See [http://www.adweek.com/aw/content\\_display/special-reports/other-reports/e3i71f341d4bd330da6958c4342904926e5?pn=11](http://www.adweek.com/aw/content_display/special-reports/other-reports/e3i71f341d4bd330da6958c4342904926e5?pn=11) (visited Sep. 30, 2010).

offerings. One of the Commission's key goals in this proceeding is "promoting competition for . . . Internet content, applications, and services."<sup>58</sup> The evidence shows that this goal has already been met in the mobile broadband context. As demonstrated in detail below, current practices in the mobile broadband market are producing fierce innovation and competition among devices and applications. No particular company can claim dominance in the devices and applications segment of the mobile broadband marketplace and competition and innovation in this segment continue unabated in the absence of open Internet regulation.

In the 14<sup>th</sup> Report, the Commission found that, "[o]ver the past two years, wireless service providers, handset manufacturers, and platform developers have introduced an array of smartphones to respond to consumer demand for devices with advanced data capabilities and to compete with and mimic the features of the iPhone."<sup>59</sup> A number of events that have occurred since the period covered by the 14<sup>th</sup> Report demonstrate that this area continues to be highly competitive. Apple created an entirely new segment this spring with its iPad,<sup>60</sup> and a number of consumer electronics makers will be debuting competitive products beginning this fall.<sup>61</sup> This summer, Sprint introduced the first 4G smartphone, the HTC EVO 4G, which broke sales records for Sprint on launch day.<sup>62</sup> Sprint introduced a second 4G smartphone

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<sup>58</sup> *NPRM* at ¶ 52.

<sup>59</sup> 14<sup>th</sup> Report at ¶ 136.

<sup>60</sup> See <http://www.apple.com/pr/library/2010/03/05ipad.html> (visited Sep. 30, 2010).

<sup>61</sup> See [http://news.cnet.com/8301-31021\\_3-20015610-260.html](http://news.cnet.com/8301-31021_3-20015610-260.html) (visited Sep. 30, 2010).

<sup>62</sup> See [http://newsroom.sprint.com/article\\_display.cfm?article\\_id=1539](http://newsroom.sprint.com/article_display.cfm?article_id=1539) (visited Sep. 30, 2010).

this fall, the Samsung Epic 4G.<sup>63</sup> The total number of devices available is equally as impressive, with at least 33 companies manufacturing more than 630 unique devices for the U.S. market.<sup>64</sup>

In addition to the array of new and diverse device types, several PC makers have recently entered the smartphone segment. Acer was an early PC entrant into this segment with an entire range of new smartphones introduced in 2009.<sup>65</sup> HP acquired Palm over the summer, which added another PC giant to the smartphone segment.<sup>66</sup> In August, Dell introduced its first smartphone, the Aero, which was the first smartphone to be available in the \$100 price range.<sup>67</sup> The entry of significant PC makers into the smartphone segment has further diversified the competitive environment, increased innovation, and lowered prices in this downstream market segment.

Another example of the highly competitive environment for mobile devices is the smartphone OS, which is “the most important software in any smartphone.”<sup>68</sup> The current structure and light-handed regulation of the retail mobile market is *increasing* innovation and competition among smartphone operating systems. There are currently 11 companies producing OS for the mobile devices segment, none of

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<sup>63</sup> See <http://www.miamiherald.com/2010/08/31/1800348/newest-sprint-4g-phone-offers.html> (visited Sep. 30, 2010).

<sup>64</sup> Reply Comments of CTIA, WT Docket No. 10-133 (filed Aug. 16, 2010) at 3.

<sup>65</sup> See [http://reviews.cnet.com/8301-13970\\_7-10165218-78.html](http://reviews.cnet.com/8301-13970_7-10165218-78.html) (visited Sep. 30, 2010).

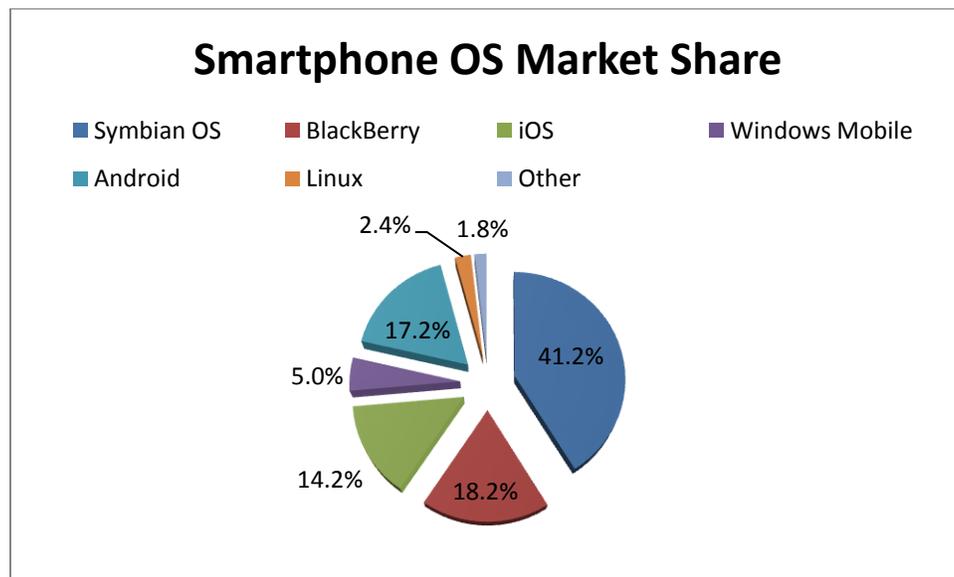
<sup>66</sup> See <http://investor.palm.com/releasedetail.cfm?ReleaseID=484483> (visited Sep. 30, 2010).

<sup>67</sup> See <http://www.reuters.com/article/idUSTRE67N58620100824> (visited Sep. 30, 2010).

<sup>68</sup> See <http://communication.howstuffworks.com/smartphone2.htm> (visited Sep. 30, 2010).

whom is vertically integrated with a mobile broadband service provider.<sup>69</sup> This segment is anything but static – new smartphone OS continue to be introduced, including the Palm Web OS (June 2009)<sup>70</sup> and the QNX-based OS used by RIM in its new PlayBook tablet, which may ultimately replace the Blackberry OS.<sup>71</sup> Table 3 below depicts Q2 2010 smartphone OS market shares worldwide.<sup>72</sup>

**Table 3**



When looking at the chart, it's important to remember that in Q4 2006, Nokia's Symbian OS still held more than a 70% share of the global smartphone OS segment.<sup>73</sup> Due to fierce innovation and competition enabled by business model innovation and

<sup>69</sup> Reply Comments of CTIA, WT Docket No. 10-133 (filed Aug. 16, 2010) at 3.

<sup>70</sup> See <http://en.wikipedia.org/wiki/WebOS> (visited Sep. 30, 2010).

<sup>71</sup> See [http://www.fiercewireless.com/story/rumor-mill-rim-trading-blackberry-software-qnx/2010-09-29?utm\\_medium=rss&utm\\_source=rss](http://www.fiercewireless.com/story/rumor-mill-rim-trading-blackberry-software-qnx/2010-09-29?utm_medium=rss&utm_source=rss) (visited Sep. 30, 2010).

<sup>72</sup> See [http://en.wikipedia.org/wiki/Usage\\_share\\_of\\_operating\\_systems](http://en.wikipedia.org/wiki/Usage_share_of_operating_systems) (visited Sep. 30, 2010) (based on Gartner data). The data is presented on a global basis because software developers innovate based on a global market, rather than on the basis of a domestic-only market.

<sup>73</sup> See [http://findarticles.com/p/articles/mi\\_m0EIN/is\\_2007\\_March\\_29/ai\\_n18766783/](http://findarticles.com/p/articles/mi_m0EIN/is_2007_March_29/ai_n18766783/) (visited Sep. 30, 2010).

the competitive structure of the mobile broadband platform market, however, the Symbian OS has fallen to less than 50% global market share today (*i.e.*, has gone from dominant to non-dominant). In that time, two completely new smartphone OS, Apple's iOS and Google's Android, have been able to enter this global segment and gain significant market share using the managed device platform approach in partnership with operators around the world. Android market share, which entered this segment *after* Apple's iOS, has now exceeded Apple's iOS market share globally. The ability of a new smartphone OS to gain significant market share against a dominant competitor in a short period of time is astonishing given that operating systems are subject to network effects.<sup>74</sup>

The mobile applications market is also booming. As the Commission found in the 14th Report, "both the number of mobile applications launched and the number of applications downloaded by consumers has grown significantly over the past two years."<sup>75</sup> This trend has continued since the time period covered by the competition report, as depicted in Table 1, below. For example, the report noted that as of December 2009, Morgan Stanley estimated that the Android Market had 15,000 available applications. Approximately 9 months later, that number has grown to more than 80,000 applications.<sup>76</sup> There were likewise over 100,000 applications available from the Apple App Store as of December 2009,<sup>77</sup> and there are now more than

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<sup>74</sup> See [http://en.wikipedia.org/wiki/Network\\_effects](http://en.wikipedia.org/wiki/Network_effects) (visited Sep. 30, 2010).

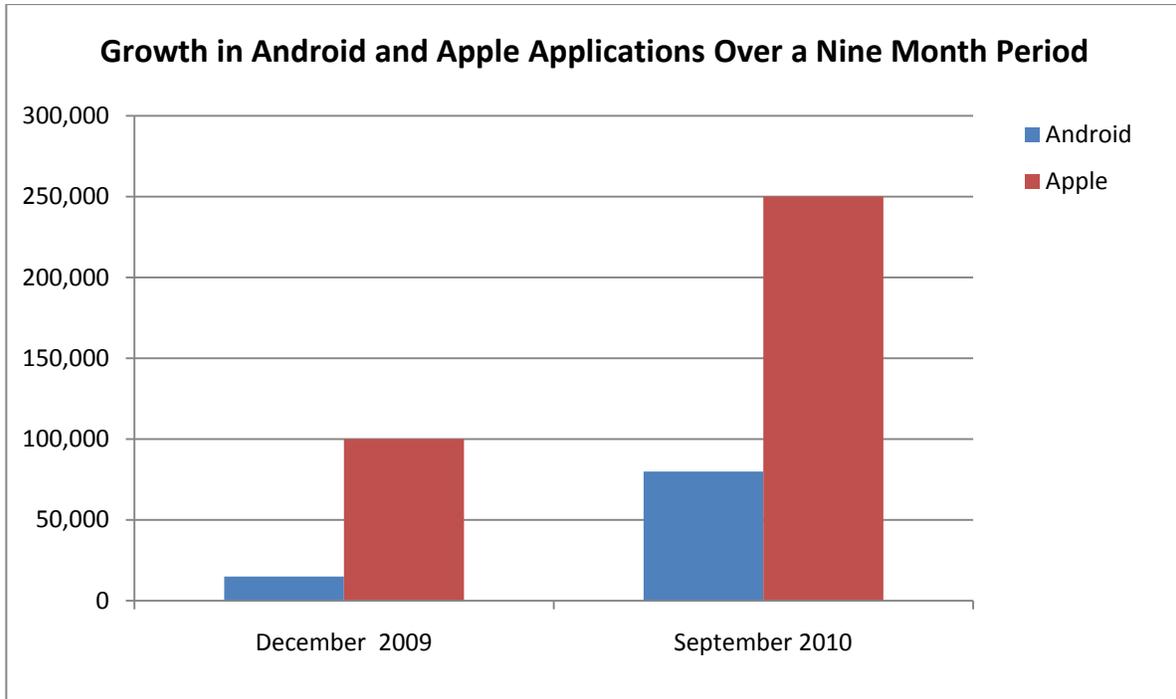
<sup>75</sup> 14<sup>th</sup> Report at ¶ 320.

<sup>76</sup> See <http://www.fiercedeveloper.com/story/android-market-tops-80-000-apps-blackberry-app-world-just-10-000/2010-09-12> (visited Sep. 30, 2010).

<sup>77</sup> 14<sup>th</sup> Report at ¶ 320.

250,000 applications available in the App Store.<sup>78</sup>

**Table 4**



On balance, provider conduct indicates that there is effective competition in the retail mobile market. Service providers continue to compete on price and exhibit significant non-price rivalry to compete for retail customers. The latter is particularly noticeable in the mobile device and applications segments, in which completely new and innovative technologies are being introduced.

**c) Mobile market performance indicates there is effective competition in the retail market for mobile services.**

Market performance evaluates evidence of the outcomes of competitive conditions in the retail mobile market from the consumer's point of view, focusing on

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<sup>78</sup> See <http://www.fiercedeveloper.com/story/android-market-tops-80-000-apps-blackberry-app-world-just-10-000/2010-09-12> (visited Sep. 30, 2010).

the benefits to consumers of competition, such as lower prices, higher consumption, and better quality.<sup>79</sup>

*Subscribership Levels.* In the 14<sup>th</sup> Report, the Commission found that mobile subscribership “increased six percent in 2008 to 277.6 million subscribers, which translates into a nationwide penetration rates of 90 percent.”<sup>80</sup> Smartphone penetration increased from 15% in October 2006 to 42% in December 2009.<sup>81</sup> Regarding mobile data usage, “Pew estimated that 69 percent of American adults used some type of non-voice, mobile data service in April 2009, up from 58 percent in December 2007.”<sup>82</sup> Not surprisingly, as penetration levels have increased, “the growth of net new subscribers has decelerated.”<sup>83</sup> Nevertheless, mobile subscribership and mobile data usage continue to increase, albeit, at slightly lower rates.

*Output and Usage Levels.* The Commission has traditionally measured voice usage using a minutes of use metric (“MOUs”). MOUs declined eight percent (8%) during 2008, and another two percent (2%) in the first half of 2009.<sup>84</sup> The Commission notes, however, that this trend “may be due to substitution by mobile messaging services.”<sup>85</sup> Indeed, text messaging volumes grew 177 percent from a total

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<sup>79</sup> 14<sup>th</sup> Competition Report at ¶ 14.

<sup>80</sup> 14<sup>th</sup> Report at ¶ 155.

<sup>81</sup> 14<sup>th</sup> Report at ¶ 159, Chart 12.

<sup>82</sup> 14<sup>th</sup> Report at ¶ 161.

<sup>83</sup> 14<sup>th</sup> Report at ¶ 171. Total mobile wireless subscriber growth in 2008 was 5.9 percent, down from 9.8 percent growth in 2007 and 12 percent growth in 2006. *Id.* at ¶ 172.

<sup>84</sup> 14<sup>th</sup> Report at ¶ 176.

<sup>85</sup> 14<sup>th</sup> Report at ¶ 176.

of 363 billion in 2007 to just over 1 trillion in 2008. Multimedia messages also increased 144 percent in 2008 from a total of 6.1 billion during 2007 to 14.9 billion during 2008.<sup>86</sup> Regarding non-messaging mobile data and Internet use, global mobile data traffic grew 157 percent from 33 terabytes in 2008 to 85 terabytes in 2009.<sup>87</sup> In sum, although voice MOUs have declined slightly, messaging and data traffic have increased significantly.

*Pricing and Revenue.* After posting across-the-board declines in 2007, some indicators of retail mobile wireless service pricing showed price decreases in 2008, while others showed increases.<sup>88</sup> However, the price of mobile wireless service, as measured by the CPI for mobile services, decreased. Revenues for the U.S. mobile wireless industry have increased each year between 2004 and 2008, although the annual growth rate for industry revenues has been in decline since 2007 (which appears consistent with overall industry growth rates).<sup>89</sup> Average revenue per user ("ARPU") for messaging and other data rose steadily between 2004 and 2008, while voice ARPU steadily declined during the same period.<sup>90</sup> Overall, ARPU remained virtually unchanged from 2007.<sup>91</sup> Declining prices coupled with revenue growth and static ARPU indicate that the retail mobile market is performing in an effectively competitive manner.

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<sup>86</sup> 14<sup>th</sup> Report at ¶ 178.

<sup>87</sup> 14<sup>th</sup> Report at a ¶ 181.

<sup>88</sup> 14<sup>th</sup> Report at ¶ 185.

<sup>89</sup> See 14<sup>th</sup> Report at ¶ 200.

<sup>90</sup> 14<sup>th</sup> Report at ¶ 203.

<sup>91</sup> 14<sup>th</sup> Report at ¶ 203.

*Investment.* The Commission found that service "[p]roviders continue to invest significant capital in networks, despite the recent economic downturn."<sup>92</sup> Census Bureau data suggests that capital expenditures by wireless providers increased approximately 15 percent from 2007 to 2008, whereas data from CTIA indicates that "incremental capital investment" decreased 4.4 percent from 2007.<sup>93</sup> Both the Census Bureau and CTIA statistics show that capital investment in 2008 was greater than capital investment in 2004.<sup>94</sup> According to the Census Bureau, capital investment in 2008 was \$25.5 billion compared to \$24.0 billion in 2004; according to CTIA, capital investment was \$20.2 billion in 2008 and only \$14.1 billion in 2004.<sup>95</sup> Data from CTIA shows that annual capital investment as a percentage of total industry revenue was the same in 2004 as 2008 (at 14%), whereas the Census Bureau data shows a slight decline (from 19% in 2004 to 14% in 2008).<sup>96</sup> Given the total increase and investment stability as a percentage of total industry revenue from 2004 to 2008, somewhat higher levels of capital investment in 2005 and 2006 are likely the result of the cyclical nature of investment. More importantly, the generally stable, high level of investment in mobile infrastructure is indicative of an effectively competitive mobile market.

*Profitability.* The Commission attempted to measure service provider profitability for the first time in the 14th Report. "Between 2006 and 2008, the

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<sup>92</sup> 14<sup>th</sup> Report at ¶ 6.

<sup>93</sup> 14<sup>th</sup> Report at ¶ 210.

<sup>94</sup> 14<sup>th</sup> Report at ¶ 210, Table 22.

<sup>95</sup> 14<sup>th</sup> Report at ¶ 210, Table 22.

<sup>96</sup> 14<sup>th</sup> Report at ¶ 212, Chart 32.

EBITDA minus CAPEX per subscriber of the top four nationwide providers varied between a low of \$5.9 for AT&T in 2006 to a high of \$16.5 for Verizon Wireless in 2008."<sup>97</sup> The 14th Report indicated that, as a whole, mobile industry profitability has been relatively variable over the last three years. "Verizon Wireless experienced annual increases between 2006 and 2008, whereas the other three nationwide providers have experienced both increases and decreases."<sup>98</sup> These variations in profitability are consistent with market competition.

*Quality.* The 14th Report found that overall network quality has been steady since 2007, but that the gap in call quality performance among the major providers included in the study has closed.<sup>99</sup> This improvement in quality is indicative of effective competition.

Overall, mobile market performance indicates there is effective competition at the retail level of the mobile market. Subscription has increased; voice usage is down, but data usage is increasing rapidly; the price of mobile wireless service, as measured by the CPI for mobile services, is decreasing; the level of investment remains high; profitability is variable; and quality is improving.

**d) Consumer behavior in the mobile market indicates there is effective competition in the retail market for mobile services.**

The Commission considers consumer switching costs when evaluating the consumer behavior component of market analysis. The Commission uses churn as a reasonable proxy to determine whether switching costs are high enough to prevent

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<sup>97</sup> 14<sup>th</sup> Report at ¶ 220.

<sup>98</sup> 14<sup>th</sup> Report at ¶ 220.

<sup>99</sup> 14<sup>th</sup> Report at ¶ 222-23.

consumers from switching providers.<sup>100</sup> In the 14th Report, the Commission found that "[c]hurn rates had been decreasing for a number of years; however, the trend has shown a slight increase over the last few quarters, with the nationwide providers averaging a monthly churn rate of two percent in the fourth quarter of 2008."<sup>101</sup> According to the Commission, churn rates indicate that approximately one quarter (25%) of consumers switch providers every year, which indicates that consumers are not "locked in."<sup>102</sup>

**e) Business innovation in the mobile market indicates there is effective competition in the retail market for mobile services.**

"One of the most common misconceptions is that innovation is primarily, if not exclusively, about changing technology."<sup>103</sup> As the Commission recognized in the *Wireless Innovation NOI*,<sup>104</sup> companies innovate with their business models as well as with their products and services, and use business model innovation ("BMI") to achieve and sustain competitive advantage.<sup>105</sup> Indeed, a majority of executives now believe that BMI is even more important to creating new and differentiated value than product or service innovation.<sup>106</sup> "[W]ith product [or service] innovation, it's a

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<sup>100</sup> 14<sup>th</sup> Report at ¶ 230.

<sup>101</sup> 14<sup>th</sup> Report at ¶ 245.

<sup>102</sup> 14<sup>th</sup> Report at ¶ 248.

<sup>103</sup> See <http://knowledge.wharton.upenn.edu/article.cfm?articleid=1396> (visited Sep. 30, 2010).

<sup>104</sup> See *Wireless Innovation NOI*, FCC 09-66 (rel. Aug. 27, 2009) at ¶¶ 61-64.

<sup>105</sup> See [http://en.wikipedia.org/wiki/Business\\_model\\_innovation](http://en.wikipedia.org/wiki/Business_model_innovation) (visited Sep. 30, 2010).

<sup>106</sup> See [http://www-05.ibm.com/services/fi/cio/flexible/enflex\\_wp\\_ibm\\_businessmodel.pdf](http://www-05.ibm.com/services/fi/cio/flexible/enflex_wp_ibm_businessmodel.pdf) (visited Sep. 30, 2010). See also, generally, Donald Mitchell and Carol Coles, *The Ultimate Competitive Advantage: Secrets of Continually Developing a More Profitable Business Model*

certainty that your competition is shortly going to copy what you have done. . . . With business-model innovation, though, if you can come up with a unique way of doing things, it's much tougher to react to.”<sup>107</sup> Technology alone is thus not the fundamental engine of innovation.

The technology transition to next generation mobile broadband is driving tremendous business model innovation and experimentation in the mobile broadband industry. “Rarely does a technology change occur without also causing a change in business processes.”<sup>108</sup> As a result, mobile broadband platform providers are experimenting with many different business models as they try to determine how to best leverage new mobile broadband technologies and differentiate their services from competitors. The (non-exhaustive) mobile broadband business models outlined below demonstrate the diversity in innovative business approaches to this market.

- Clearwire is using an all-IP WiMAX platform to deliver unlimited next generation broadband services at retail and through MVNO relationships with Sprint, Comcast, and Time Warner. Clearwire’s focus is on driving traffic through a network that is open to all parties in terms of devices and applications rather than through partnerships with third-party providers. This is sometimes known as the “bitpipe” model.

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(Berrett-Koehler 2003) (demonstrating through case studies that the best way to improve company performance is through continual business model innovation).

<sup>107</sup> See [http://www.businessweek.com/magazine/content/06\\_14/b3978073.htm](http://www.businessweek.com/magazine/content/06_14/b3978073.htm) (visited Sep. 30, 2010).

<sup>108</sup> See <http://knowledge.wharton.upenn.edu/article.cfm?articleid=1396> (visited Sep. 30, 2010).

- Sprint is combining its existing 3G EVDO mobile broadband network with Clearwire's WiMAX network (through its MVNO relationship) using dual-mode devices.<sup>109</sup> Sprint has also outsourced day-to-day services, provisioning, and maintenance for the Sprint-owned CDMA, iDEN and wireline networks.<sup>110</sup> With this model, Sprint no longer manages day-to-day operations of any network, and is capable of both offering a "bitpipe" and leveraging its 3G platform through third-party partnerships.
- AT&T Wireless expects to launch high-speed packet access plus ("HSPA+") by the end of the year and commence LTE deployment in 2011, along with additional backhaul connections and antenna sites.<sup>111</sup> AT&T is also providing widespread access to its Wi-Fi network, which consists of more than 20,000 hot spots. AT&T is thus combining multiple technologies into a broadband platform that enables the delivery of integrated third-party services (e.g., the iPhone).
- Verizon Wireless plans to deploy next-generation mobile broadband based on long-term evolution (LTE) technology in 30 "NFL" markets by the end of 2010 and to its entire footprint by 2013.<sup>112</sup> Verizon has implemented an Open Development Initiative that will allow any device that meets Verizon's

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<sup>109</sup> See <http://www.fiercebroadbandwireless.com/story/sprint-announces-4g-rollout-schedule/2009-03-26> (visited Sep. 30, 2010).

<sup>110</sup> See <http://investors.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle&ID=1473001&highlight=> (visited Sep. 30, 2010).

<sup>111</sup> See [http://www.att.com/Investor/Financial/Earning\\_Info/docs/2Q\\_10\\_slide\\_c.pdf](http://www.att.com/Investor/Financial/Earning_Info/docs/2Q_10_slide_c.pdf) (visited Sep. 30, 2010).

<sup>112</sup> See <http://arstechnica.com/telecom/news/2010/09/verizon-lte-in-30-cities-by-year-end-att-aims-for-mid-2011.ars> (visited Sep. 30, 2010).

specifications to connect to the Verizon LTE network.<sup>113</sup> This model appears similar to Sprint’s hybrid approach, although it does not rely on an MVNO relationship to provide the bitpipe.

The innovative approaches to mobile broadband business models discussed above are a predictable result of technological change and competition in the retail market for mobile broadband services. To gain competitive advantage, in the absence of regulation, network operators will continue to maximize business model innovation by pursuing new technologies, third-party partnerships, and service offerings.

\* \* \*

As the analysis above demonstrates, the retail mobile market is either more competitive than or at least as competitive now as it was when the Commission last concluded that the retail mobile market was “effectively competitive.”<sup>114</sup> Given this data, it would be arbitrary and capricious for the Commission to now conclude that the retail mobile market is not effectively competitive.<sup>115</sup>

It would also be arbitrary and capricious to conclude that open Internet regulations are necessary to address the retail market for mobile broadband services. The Commission stated in the 14<sup>th</sup> Report that its goal was to provide “data that can form the basis for inquiries into whether policy levers could produce superior

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<sup>113</sup> See <https://www22.verizon.com/opendev/> (visited Sep. 30, 2010).

<sup>114</sup> 13<sup>th</sup> Report at ¶ 277.

<sup>115</sup> The 14<sup>th</sup> Report avoided reaching a conclusion by referring to the market as “complex;” but the 14<sup>th</sup> Report did not provide any analysis indicating that the market has become more complex since the 13<sup>th</sup> Report was issued. 14<sup>th</sup> Report at ¶ 3.

outcomes.”<sup>116</sup> Nothing in the 14<sup>th</sup> Report supports a conclusion that the imposition of open Internet regulations would produce superior outcomes in the mobile devices and applications segment – the segment open Internet regulations are intended to address. As demonstrated by the data above, the device and applications segment of the mobile market is the *most* competitive segment of the retail mobile market.

**B. Other proposed bases for imposing open Internet regulation on mobile broadband providers are either unlawful or arbitrary and capricious.**

The NPRM posits several bases for open Internet regulation that it is considering applying even if the mobile broadband market is effectively competitive. These bases include the (1) desire to maximize applications innovation; (2) common carriage classification; and (3) “free speech.” As discussed in more detail below, however, none of these bases is supported by the evidence, economic theory, or the law applicable to the mobile marketplace.

**i. In the absence of market failure, requiring mobile broadband network operators to subsidize applications and content providers is arbitrary and capricious.**

Some proponents of open Internet regulations believe that requiring network operators to subsidize application providers’ Internet access is necessary to maximize applications innovation. According to these proponents, applications entrepreneurs need open Internet regulation to ensure they can “innovate” without “first seeking the permission” of a network operator. Assuming there is no market failure in this segment, however, “seeking permission” is merely a euphemism for paying market-based rates for use of the network. In other words, these proponents

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<sup>116</sup> 14<sup>th</sup> Report at ¶ 3.

of open Internet regulation seek a government mandate that network operators provide an implicit subsidy to applications entrepreneurs. Of course, forcing mobile broadband network providers to subsidize investment in applications would discourage investment in mobile broadband networks. There is no rational basis in the record for preferring applications investment to network investment in the mobile broadband market.

The facts demonstrate that there is no basis for an applications subsidy at all. As noted in Table 4, above, the mobile applications market is experiencing annualized growth rates of up to more than 500 percent. Given this growth rate and innovation, the mobile applications segment does not appear to need an implicit subsidy. To the contrary, the market appears to be maximizing applications innovation in the absence of open Internet regulation.

The argument that mobile network operators should be subsidizing mobile applications providers is also contrary to the relative entry costs of these two market segments. As the NPRM recognizes, many applications entrepreneurs have “limited resources” but nevertheless “can innovate on today’s Internet with very low marginal costs.”<sup>117</sup> In fact, the cost of entry into the applications market is so low that an entrepreneur can earn a living as an *independent* mobile software developer.<sup>118</sup> In comparison, network operators face relatively high-costs of entry as well as numerous regulatory conditions of entry.<sup>119</sup> For example, in the 14<sup>th</sup> Report, the

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<sup>117</sup> NPRM at ¶ 63.

<sup>118</sup> See <http://www.creativealgorithms.com/blog/content/earning-living-independent-mobile-software-developer> (visited Sep. 30, 2010).

<sup>119</sup> See 14<sup>th</sup> Report at ¶¶ 56-67.

Commission noted that Clearwire's entry into the mobile broadband service provider market has required billions of dollars in capital. It would be arbitrary and capricious to require network operators, who have an astronomically higher cost of entry, to subsidize the entry of applications developers, whose cost of entry is so low that one person can make a living at it with minimal investment. If the Commission were to subsidize mobile broadband investment, it ought to subsidize investment in the network rather than applications.

Finally, the premise for this regulatory basis – that mobile broadband providers will raise the cost of applications distribution beyond the capability of entrepreneurs to innovate – is contradicted by the way in which mobile applications are marketed and sold. Unlike the wired Internet, mobile applications are not usually sold by applications developers directly to consumers. Instead, mobile applications are generally sold through the application store model pioneered by Apple for the iPhone. This approach to mobile application distribution, which has proven to be extraordinarily successful, relies on the application store vendor for the distribution of applications. To make it even easier for mobile applications developers to market their products, the Wholesale Applications Community has begun work on standards that will allow developers to be paid for applications that are sold through *any* association application store.<sup>120</sup> Because mobile application store vendors enjoy the benefits of economies of scope, there is no reason to believe that applications store owners will be unable to distribute mobile applications in the absence of open

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<sup>120</sup> See <http://www.wholesaleappcommunity.com/default.aspx> (visited Sep. 30, 2010).

Internet regulations, and there is thus no reason to believe that applications developers will be unable to distribute their creations either.

There is also no reason to believe that applications developers are having difficulty distributing their software products through applications stores right now. The success of Apple's innovative App Store has spawned an array of application store competitors, who provide an array of distribution options for applications entrepreneurs.<sup>121</sup> A non-comprehensive list of applications stores includes the following:

- *Android Market*<sup>122</sup> – provides a marketplace for Android developers; as noted above, the Android Market currently supports approximately 80,000 applications;
- *RIM BlackBerry App World*<sup>123</sup> – provides BlackBerry users with an environment to browse, download, and update approximately 10,000<sup>124</sup> third-party applications.
- *PocketGear*<sup>125</sup> – is the world's largest cross platform, open app store and content marketplace with a catalog of more than 140,000 applications

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<sup>121</sup> For an even more comprehensive list of mobile application stores, see [http://en.wikipedia.org/wiki/List\\_of\\_digital\\_distribution\\_platforms\\_for\\_mobile\\_devices](http://en.wikipedia.org/wiki/List_of_digital_distribution_platforms_for_mobile_devices) (visited Sep. 30, 2010).

<sup>122</sup> See <http://www.android.com/market/> (visited Sep. 30, 2010).

<sup>123</sup> See <http://na.blackberry.com/eng/services/appworld/> (visited Sep. 30, 2010).

<sup>124</sup> See <http://www.fiercedeveloper.com/story/android-market-tops-80-000-apps-blackberry-app-world-just-10-000/2010-09-12> (visited Sep. 30, 2010).

<sup>125</sup> See <http://www.pocketgear.com/en/usd/plattform:palm/index.html> (visited Sep. 30, 2010).

available for the Palm OS, Symbian OS, Windows Mobile, Blackberry, Android, and Java operating systems.

- *Nokia Ovi Store*<sup>126</sup> – allows users to download mobile applications, videos, images, and ring tones to their Nokia devices.
- *Windows Marketplace for Mobile*<sup>127</sup> – an application and service by Microsoft for their Windows Mobile platform that allows users to browse and download applications that have been developed by third-parties.
- *Qualcomm Plaza Mobile Internet*<sup>128</sup> – provides an operator branded, mobile widgets architecture and monetization platform.
- *Ericsson Mobile Service Delivery Platform*<sup>129</sup> – provides a turnkey solution for operators deploying a mobile applications storefront with an on-device portal, recommendation engine and a widget management platform.

This application store model has produced a number of benefits for OS and device vendors, application developers, and consumers. A smartphone OS needs applications to succeed, and application stores have proven to be the most successful method of efficiently creating and distributing applications. For developers, application stores provide faster time to market, a single point of access to users of the OS, payment services through established billing systems, enhanced revenue stream opportunities, and content distribution services. For consumers, application

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<sup>126</sup> See <https://store.ovi.com/> (visited Sep. 30, 2010).

<sup>127</sup> See <http://www.microsoft.com/windowsmobile/en-us/meet/marketplace.mspx> (visited Sep. 13, 2010).

<sup>128</sup> See [http://plaza.qualcomm.com/mobile\\_internet/en/](http://plaza.qualcomm.com/mobile_internet/en/) (visited Sep. 30, 2010).

<sup>129</sup> See <http://www.ericsson.com/solutions/page.asp?ArticleId=E2426067-5CB5-47E6-B271-CEB05A67FA98>, (visited Sep. 30, 2010).

stores provide a simpler and more intuitive mobile Internet experience, quality assurance, a greater selection of more compelling applications and services, and greater convenience. For the OS and device vendors, application stores provide a method of ensuring that junkware, adware, spyware, and malicious viruses cannot compromise the function of the OS and device, and a method of enforcing software quality standards, which prevent third-party software from crashing the system or impairing their brand. Given the success of the applications store distribution model, whatever merit there may be to subsidizing applications delivery on the wired Internet simply does not apply in the mobile context.

**ii. Common carriage status does not provide an independent basis for open Internet regulation.**

In 2007, the Commission issued a declaratory ruling classifying for the first time wireless broadband services as “information services.”<sup>130</sup> Assuming the Commission can now legally designate mobile broadband providers as common carriers, that designation would not provide an independent basis for the open Internet regulations proposed by the Commission. In *Orloff v. FCC*,<sup>131</sup> the court rejected the complainant’s contention that Verizon Wireless had acted unreasonably pursuant to section 202(a) of the Act (i.e., Verizon Wireless had engaged in discrimination) by giving different concessions to similarly situated customers. The court noted that section 202(a) prohibits only “unjust and unreasonable” discrimination, leaving the question of whether the practices of Verizon Wireless

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<sup>130</sup> See *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, FCC 07-30 (rel. Mar. 23, 2007).

<sup>131</sup> *Orloff v. FCC*, 352 F.3d 415 (DC Cir. 2003).

were actually unjust or unreasonable. The court affirmed the FCC's conclusion that, in a competitive market, differential pricing is not unjust or unreasonable. "Customers dissatisfied with Verizon's charges or service may simply switch to another provider."<sup>132</sup> The court also noted that haggling is a normal feature of many competitive markets, and allows consumers to play competitors against each other, such that consumers "can only benefit."<sup>133</sup>

The court also noted that a strict application of nondiscriminatory pricing would impose a requirement analogous to tariffs, which the Commission expressly eliminated with the blessing of Congress. By erasing the general "unjust and unreasonable" qualifiers in sections 201 and 202 of the Communications Act, the Commission's proposed net neutrality rules would subject the competitive mobile broadband market to a *de facto* tariff regime. Although there would be no formal tariff-filing requirement, a mobile broadband service provider would, in effect, be bound by its published prices.

**iii. Free speech concerns cannot lawfully support open Internet regulation.**

The "free speech" basis for open Internet regulation is inapplicable to the mobile broadband market. Because the retail mobile market is competitive, attempts to block consumer Internet traffic on the basis of speech would result in customers switching providers. As the Commission found in its 14<sup>th</sup> Report, even in the absence of blocking on the basis of speech, twenty five (25%) of consumer switch their service provider in any given year. The traditional concern in the broadcasting era of the

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<sup>132</sup> *Orloff*, 352 F.3d at 421.

<sup>133</sup> *Id.*

limited nature of the airwaves is likewise inapplicable. In addition to being subject to competition, most mobile broadband devices are capable of accessing unlicensed spectrum, which is freely available to anyone, as well as the wired Internet. Given the multiplicity of broadband outlets, there is no justifiable concern that freedom of speech would be curtailed in the absence of open Internet regulations applicable to the mobile market.

### **III. CONCLUSION**

A data-driven approach leads to only one reasonable conclusion regarding mobile broadband: open Internet regulations are unnecessary. WCAI urges the Commission to refrain from imposing such unnecessary regulation on mobile broadband service providers.

Respectfully submitted,

Wireless Communications Association  
International, Inc.

By:       /s/      Fred Campbell

Fred B. Campbell, Jr.  
President & CEO  
1333 H Street, NW, Suite 700 West  
Washington, DC 20005  
202.452.7823

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