Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

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In re Applications of	)	
	)	
Cellco Partnership d/b/a Verizon Wireless and	)	WT Docket No. 12-4
SpectrumCo. LLA and	)	ULS File No. 0004566825
Cox TMI Wireless, LLC	)	ULS File No. 0004996680
For Consent to Assign Wireless Licenses	)	
	)	

REPLY TO OPPOSITION

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I. Introduction and Summary

The Commission is often told that its job is not to pick winners and losers in the markets it oversees. And this is true. But it is also not the Commission's job to crown kings. And that is exactly what Verizon is asking for in this proceeding.

If the Commission approves the deals that are now before it, it will help ensure that a hypothetical spectrum crisis gives way to a very real competition crisis. Approving these license transfers will ensure that our wireless market slides irreversibly into a duopoly, where the alarming marketplace trends identified by the Commission in its recent Wireless Competition reports and the AT&T-T-Mobile staff report only get worse. Further, approving these deals will do substantial damage to the Commission's own facilities-based competition policies, ensuring that the dreams for wireline-wireless and LEC-Cable competition will remain in the province of dreamers.

But though the proponents of these deals bring a confident air of inevitability to their pleadings, the simple reality is the Applicants have failed to meet their burden of proof to demonstrate that these transactions are in fact in the public interest. Like they did in their *Application*, in their *Opposition* Applicants offer nothing but unsupported assertions about Verizon's supposed impending mobile doom. When the layers of its case are peeled back, it becomes obvious that Verizon is simply overstating its future capacity crunch and vastly understating the viability of other non-competition harming capacity-enhancing alternatives. Applicants also predictably ignore or downplay the serious competitive problems with the wireless market as they exist today, and thus fail to grasp the very real future harms to competition that these deals will bring.

In this *Reply to Opposition*, we offer numerous examples of how Applicants have failed to make their case, and why these deals are contrary to the public interest. We

expect that when the *full* record is assembled -- when the more forthcoming responses to the Commission's requests for further information are adequately analyzed -- it will be impossible for any party to honestly argue that these deals will benefit the public interest.

Ultimately, the Commission must recognize that competition policy carried out through merger reviews and license transfer proceedings is not ideal. Over the past decade the Commission has stood idle and in many cases helped competition die a death of a thousand paper cuts, with its approvals of mergers and license transfers often being the paper that did the cutting. The wireless market is now essentially a duopoly, with little hope for future competition to fully discipline Verizon's and AT&T's market power. However, there is *some* restraint on the worst abuses of this market power offered by the few remaining competitive carriers, and there are still a few reasons to hope for a better competitive future. But that hope all but vanishes if the Commission approves these transactions. If it does move to give Verizon its latest spectrum prize, the Commission cannot simply slap on a few conditions that Verizon initially protests but ultimately accepts, just as Br'er Rabbit ultimately accepted his fate in the briar patch. Conditions are not the same as comprehensive competition policy, and it is far past time for the Commission to articulate its vision for competition, and put actions to its words.

II. Applicants Have Failed to Make the Case That The Spectrum License Transfers are in the Public Interest

A. Verizon Overstates its Future Capacity Crunch and Understates the Viability of Capacity Enhancing Alternatives

The fact that spectrum is scarce and that the unregulated market would produce outcomes that are inefficient and harmful to the public interest is precisely why Congress gave the Commission substantial flexibility when evaluating license transfers. And as history shows, this job of overseeing the allocation of our nation's valuable public

airwaves is one that requires the skill to see through sparsely supported, but seemingly convincing pleas for regulatory favors. Carriers have shown a willingness to play Chicken Little in license transfer applications, especially in those filed since the Commission itself began stoking fears about the "looming spectrum crunch."

The question of whether the wireless sky is actually falling for any particular carrier is however a question that can only be satisfactorily answered after the presentation and evaluation of detailed engineering and economic models. In the instant proceeding, Verizon, SpectrumCo and Cox ("Applicants") have failed to meet this basic threshold for evaluating whether or not these license transfers are in the public interest. They simply ask the Commission to trust them, even as the limited evidence offered actually indicates that Verizon is overstating its need for these valuable and scarce public airwaves. Until Applicants offer actual and convincing evidence that the public interest harms of Verizon dominating the spectrum input market are outweighed by its actual use of these licenses, the Commission cannot approve these transfers.

Applicants claim that "no commenter can rebut" that these license transfers "further the goals of the Administration and the National Broadband Plan." But this sentiment is myopic and entitled, representing a view of the public interest that is equated with the interest of the Applicants themselves. The Administration has of course prioritized getting *new* spectrum to market, particularly underutilized spectrum that is currently allocated for governmental use. The steps outlined by the President in the June 2010 Memorandum deal almost exclusively with how the FCC and NTIA will work with other government agencies and departments to repurpose *their* spectrum for commercial and unlicensed mobile wireless use. It is simply inaccurate for Applicants to characterize

the transfer of licenses from potential new market entrants to the current wireless market leader as furthering the goals described in the *Presidential Memorandum*; harming future competition by strengthening the wireless duopoly and creating a wireline-wireless cartel is clearly *not* a goal of the Obama Administration. Indeed, one only needs to read past the excerpt from the memorandum quoted by Applicants to see that the Administration is equally focused on promoting the kinds of capacity-enhancing innovation that Verizon abjures in its *Opposition*.[1] Applicants citing of the National Broadband Plan is equally myopic, fundamentally ignoring the Plan's focus on getting *new* spectrum to market[2] (not taking spectrum from one set of competitors and transferring it to the market leader), and ignoring the Plan's emphasis on encouraging more wireless competition, in addition to the wireless-wireline competition that this deal kills.[3] Applicants have read the National Broadband Plan narrowly in order to promote their preferred outcome, but we trust the

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[1] *See* President Barack Obama, *Presidential Memorandum: Unleashing the Wireless Broadband Revolution*, June 28, 2010 (*June 2010 Presidential Memorandum*). "To do so, we can use our American ingenuity to wring abundance from scarcity, by finding ways to use spectrum more efficiently. We can also unlock the value of otherwise underutilized spectrum and open new avenues for spectrum users to derive value through the development of advanced, situation-aware spectrum-sharing technologies."

[2] The pages cited by Applicants from the National Broadband Plan make no mention of the need for the Commission to approve the consolidation of the spectrum input market by Verizon. The cited text emphasizes the introduction of 300MHz of sub-3.7 GHz spectrum to the market, none of which consists of the already-auctioned AWS-1 licenses. *See* "Connecting America: The National Broadband Plan," Federal Communications Commission, March 16, 2010 (*National Broadband Plan*) at 76-77.

[3] Indeed, the very first recommendation in the competition chapter discusses the need for the FCC and NTIA to "make more spectrum available for existing and new wireless broadband providers in order *to foster additional wireless- wireline competition* at higher speed tiers." The application before the Commission in the instant proceeding not only consolidates quality spectrum in the hands of already spectrum-rich Verizon, but also removes four major cable providers from the market as potential facilities-based or independent MVNOs, *in addition* to ensuring there will be no wireline-wireless competition through the joint marketing arrangements. This needless to say run exactly counter to the National Broadband Plan's top recommendation on competition. *See National Broadband Plan* at 43.

Commission is more than familiar with the Plan's actual recommendations and the underlying analysis.[4]

The license transfers proposed here are not in the public interest because they will increase concentration in the spectrum input market to a dangerous level, which will not be offset by any measurable transaction-specific efficiencies or benefits. There are no measurable transaction-specific efficiencies or benefits because Verizon has offered no actual hard evidence supporting its notion that it will soon face unmanageable spectrum capacity constraints. All it has offered are thinly-sourced and factually-challenged assertions of a looming capacity crunch, claims that contradict Verizon's own past pronouncements on its spectrum position. Indeed, not so long ago Verizon's then-CEO stated quite it quite plainly: "I don't think we'll have a spectrum shortage."[5] The only thing that has fundamentally changed since Verizon made that statement is the demise of AT&T's takeover of T-Mobile. Verizon simply was presented with the opportunity to shore up its spectrum position relative to its maverick rivals, an opportunity that arose as

[4] Applicants' view of the Plan's recommendations on secondary markets ignores the fact that the Plan concluded that the secondary markets were working well for license transfers, but that the Commission needed to do more to encourage secondary spectrum leasing arrangements, the very kind of arrangements that could help Verizon address any actual future capacity concerns on a spot-by-spot basis. *See National Broadband Plan* at 83: "Preliminary analyses establish that there have been thou- sands of secondary-market transactions involving mobile broadband licenses over the last several years. These have included license transfers, including partitioning and dis- aggregation, and spectrum leases, thus providing some evidence that the FCC's policies have enabled "spectrum to flow more freely among users and uses," as envisioned in the Commission's Secondary Markets Policy Statement. Despite this activity, the pressing spectrum requirements of broadband necessitate the need for a second look. In particular, the FCC should examine additional positive incentives that may assist in the development of secondary markets, such as reducing secondary market transaction costs like lease filing costs, and encouraging and facilitating the use of dynamic spectrum leasing arrangements that harness emerging technologies." (internal citations omitted).

[5] *See* "A Conversation with Ivan Seidenberg," Council on Foreign Relations, Apr. 6, 2010.

it became clear that T-Mobile would soon be flush with $3 billion in new cash and looking for spectrum to facilitate its own deployment of a nationwide LTE network.

Applicants claim that no commenter can rebut the showing that Verizon "will not be able to fully meet consumers' growing demand for mobile broadband with its current spectrum holdings." But this is simply untrue. Many commenters and petitioners offered numerous illustrations of the methods Verizon could use to meet their claimed worst-case scenarios, methods Verizon too easily dismisses. But it is important to note that the burden of proof here lies with Verizon; they must make a showing that the transaction is in the public interest and that the harms from increasing concentration in the spectrum input market are outweighed by any transaction-specific efficiencies. They have failed to do so. Commenters and Petitioners may have failed to rebut Verizon's assertions to a level of their own satisfaction, but this is simply because Verizon's assertions are just that. They present no benefit-cost analysis; they present no engineering models; they present no economic models. They simply provide opaque predictions, which is not enough to overcome their burden of proof that this transaction is in the public interest.

Verizon's entire case is predicated on the true, yet vague and intentionally alarmist notion that because consumers are using increasing amounts of wireless data, that a wireless deluge is on its way for *Verizon* and the only way to stop it is give them these licenses. For example, Applicants cite scary sounding statistics about the recent use and potential growth in wireless tablet such as the iPad.[6] By saying that tablet growth jumped "more than 200 percent" on December 26th Applicants paint a picture of unsustainable growth, but a rational view of this data point, like the others used in the

[6] *Opposition* at 8.

Opposition, illustrate things are indeed growing, but *manageably* growing. First, Verizon should know quite well the fallacy of citing percentage increases of use in a nascent market (large percentage increases are always observed when starting from small values). Second, the Cisco study cited as evidence of how tablets will swamp networks in 2016 does not appear to be specific to cellular networks, but includes all projected tablet traffic, whether on cellular or Wi-Fi networks. Yes, tablets are increasingly popular and are the shiny new objects that every good tech reporters writes about. But the data indicates that nearly all tablet traffic is carried on Wi-Fi networks, and that tablet growth is manageable. Overall non-smartphone cellular broadband devices (i.e. tablets, mifi, aircards, and netbooks) only account for 6 percent of all wireless subscriptions.[7] The combined annual growth rate (CAGR) of all of these devices (which include yesterday's "hot" devices like mifis and netbooks) was 7 percent between since 2007.[8] Only 7.2 million of Verizon's 108 million (or 6.7 percent) wireless connections are non-smartphone data devices.[9] But most important is the fact that most consumers are not even buying tablets with cellular radios, and those that do rarely use them to connect to cellular networks. One recent study found that only 6 percent of iPad sessions are conducted via a cellular network,[10] while another found that only one-in-ten iPads sold are cellular-capable.[11] With some consumers quickly realizing that their HD-capable devices can eat through their expensive monthly data allotments in just a few hours, it is

[7] *See* "U.S. Mobile Broadband and Tablet Subs, Q2 2007-Q4 2011," *SNL Kagan*, February 29, 2012.

[8] *Id.*

[9] *Id.*

[10] "Only 6% of iPad App Sessions On Cellular Connection," Localytics, March 22, 2012. Available at goo.gl/MrLSk.

[11] Nancy Gohring, "Analyst: Only one in ten tablets sold has a cellular connection," *IDG News Service*, March 20, 2012. Available at goo.gl/Hax5X.

unlikely that the portrait of unsustainable tablet growth that Applicants paint will ever become a reality[12] – *even if* Verizon can get its hands on all of the spectrum it wants.[13]

But Verizon estimates of impending mobile doom are based on a cell sector threshold capacity that vastly understates what Verizon is currently delivering to customers. In his declaration, David E. Borth states that "[i]f the sector is now assumed to be operating in a realistic cellular environment with cochannel interference from the neighboring sectors <u>and</u> the performance is average over the entire sector, the average sector throughput is reduced to 16.7 Mbps. At the data speeds that Verizon Wireless provides LTE service to its customers, total sector throughput on a per-hour basis will necessarily be lower. I therefore conclude that the cell site sector capacity thresholds employed in the Supplemental Stone Declaration are reasonable given the assumed data speeds."[14] The figure Dr. Borth refers to in the Stone Declaration is redacted, unlike the 16.7 Mbps threshold value cited by Dr. Borth. But we can use the average sector figure of 16.7 Mbps as a basis for judging Verizon's predictions of some swamped sectors in 2015. *Today* Verizon is delivering throughput at its cells that far exceeds this supposed threshold limitation, and far exceeds the 5-12 Mbps downstream performance that Verizon states it intends to deliver to its subscribers. For example, recent tests of the Verizon iPad at launch reveal speeds on the order of 40 Mbps, more than twice the level cited by Dr. Borth.[15] Numerous tests of smartphones on Verizon's LTE network have

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[12] Anton Troianovski, "Video Speed Trap Lurks in New iPad," *Wall Street Journal*, March 21, 2012.

[13] It should be noted that nowhere in the *Application* or *Opposition* does Verizon claim that these licenses will be used to increase data caps or lower prices.

[14] *See* Exhibit 3, Declaration of David E. Borth, attached to *Opposition*, para. 15 (emphasis in original, internal citations omitted).

[15] *See e.g.* M.G. Siegler, "The New iPad Makes Apple's Tablet Domination Clearer

revealed downstream speeds approaching and exceeding 70 Mbps.[16] These data indicate that Verizon is underestimating the throughput of its own network, and by doing so, overstates its need for these AWS licenses.[17]

Verizon simply fails to offer actual evidence or even a basic definition of what it means when it claims that many of its cell sectors will become "spectrum constrained."[18] Verizon indicates that it designs its network for "peak hourly loads" or "busy hour traffic."[19] But it fails to offer any explanation of what the future busy hour traffic volumes will be, what the But it fails to offer any explanation of what the future busy hour traffic volumes will be, what the *typical* customer would experience in terms of performance degradation if its future projections are accurate, nor does it even offer a value for what current and past busy hour traffic loads are. Nor does Verizon offer any detailed engineering models to support any of these assertions. All we have is a threshold value that seems at odds with what Verizon is currently delivering.

Verizon does offer a hypothetical example of a customer who is streaming video that *might be more likely* to notice longer buffer times, and that all customers *could* experience "slower" speeds. But how much slower, and how many customers? Verizon

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Than Ever," *Techcrunch*, March 14, 2012 ("Yesterday, I clocked the new iPad using LTE at over 40 mbps down and 20 up on Verizon's network... My LTE speed tests ranged from about 15 mbps down to 42 mbps down and 10 mbps up to 20 mbps up. Most of the time I was in the upper range in both categories.)

[16] *See e.g.* Kevin Fitchard, "iPad vs. iPad: Which 4G tablet should you choose?", *GigaOM*, March 15, 2012 (showing test results for 8 speed performance tests on a Verizon LTE smarphone in New York City, each exceeding 65 Mbps downstream).

[17] Note that in Mr. Stone's declaration he describes a redacted figure as the "data traffic *threshold* for *spectrum constrained-sectors*" (emphasis added) using 700 MHz Upper C Block spectrum at year-end 2013, a threshold value that even without these licenses Verizon says will be higher by year-end 2015. *See Stone Declaration*, para. 25.

[18] *Stone Declaration*, para. 31.

[19] *Stone Declaration*, para. 20.

fails to say. And this is a critical omission, because even if Verizon's figures are to be believed (and they should not), it is essentially asking the Commission to cement the mobile wireless duopoly market and kill any hope for future competition in order to ensure that some of its customers in some cells at some small part of the day don't have to wait a few extra seconds while their YouTube video buffers. Given that market-wide 65 percent of all U.S. mobile data customers are still projected to be on vastly slower 3G networks in 2015, it is *highly doubtful* that any appreciable numbers of customers would notice any diminished performance.[20] This is because those who have upgraded to 4G will be few in number, and will be used to 3G networks that deliver sub-1 Mbps performance; in addition to the fact that many will be used to streaming videos from wireline connections that are on par or worse performing than the 5 to 12 Mpbs target Verizon promises. Even if Verizon's unsupported predictions are to be believed, the Commission's public interest mandate requires a balancing test of somewhat more reliable YouTube downloads for *some* consumers in *some* sectors at *some limited* portion of the day against the duopolization of the spectrum input market, and the associated competitive harms that will be experienced by *all* consumers because of these license transfers.[21] Verizon has offered nothing to suggest that its own wants outweigh the

[20] "Network Coverage & Subscriber Unit Projections For 3G, 4G And Smartphone Proliferations, 2011-2021," *SNL Kagan*, March 19, 2012.

[21] Verizon doesn't even mention the use of its current Fair Access Policy (FAP) in its discussion of capacity planning. Under its current FAP for grandfathered unlimited 3G users, "[t]he highest data users, the top 5% with 3G devices on unlimited data plans, may experience managed data speeds when connected to a congested 3G cell site after reaching certain data-usage levels in a bill cycle. High data users will feel the smallest possible impact and only experience reduced data speeds when necessary for us to optimize data network traffic in that area." In other words, unlike AT&T, who throttles all unlimited users when they exceed a certain monthly allotment, Verizon more sensibly throttles the top monthly users only when they are in a congested cell during a time when

myriad of market-wide harms that will arise from its consolidation of the spectrum input market.

But aside from its promotion of unsupported and undefined potential harms that will reign down if they don't get their way, Verizon is simply too dismissive of non-monopolization capacity-enhancing alternatives. For example, Verizon equates the increasingly critical practice of Wi-Fi offloading to the coffee shop retail experience,[22] ignoring the existence of carrier-grade offloading operations that are and will continue to become a key part of the mobile market.[23] Because Verizon is so dismissive of a technique that is widely used by carriers around the globe, one that is expected to carry a substantial amount of cellular traffic, it calls into question all of their other unsupported predictions of impending mobile doom.

But the larger point here is, if the market is top-heavy, with Verizon controlling a disproportionate number of subscribers, it will always lay claim to a disproportionate amount of spectrum. But such a top-heavy market is simply not good for competition, since the ability to expand output and attract customers becomes a catch-22 that will (if Verizon has its way) only be solved by the further duopolization of the mobile market. The sensible policy is to ensure a reasonable distribution of spectrum between the national providers, who will then compete via normal means (including non-spectrum

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that sector is actually experiencing congestion. It its *Opposition*, Verizon fails to explain how often this management technique is used nor how it plans to employ such network management techniques on its LTE network. Such information is critical for the Commission's public interest evaluation of these license transfers.

[22] *Stone Declaration*, para. 46.

[23] *See e.g.* Kevin Fitchard, "Roaming: the missing piece to the smartphone-Wi-Fi puzzle," *GigaOm*, March 20, 2012.

methods for enhancing capacity) in order to attract more business.[24] History in fact suggests that Verizon will utilize these non-spectrum acquisition methods for enchancing capacity if forced to; they might even innovate new methods. But if they do not, it does not mean consumer welfare will be reduced. Consumer welfare will be preserved because those consumers (if given a choice) can leave Verizon for other carriers who do deliver. More even use across the differing carrier networks would enhance societal welfare by increasing competition and increasing network efficiency.

The lack of any detailed supporting engineering analysis combined with a vague an unconvincing description of future consumer harms should give the Commission pause, because from these applications it is impossible for it to gain a clear understanding of whether or not Verizon actually intends to put this spectrum to its best and most efficient use. The Commission has ample reason to be skeptical of Verizon on this point, because the company is currently sitting on a substantial amount of spectrum that it has no plans to use. Indeed, in his declaration, Mr. Stone essentially admits that Verizon has no plans whatsoever to deploy services on its vast Lower 700 MHz Band licenses.[25]

B. Applicants Ignore the Competitive Harms of a Spectrum Duopoly

Applicants contend that commenters failed to demonstrate any competitive harm at the national level, but their entire case for their "all is well" rosy outlook is built on a

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[24] It should be noted that Verizon claims to be the most efficient carrier, because it has a high customer-to-spectrum ratio. However, all this illustrates is that Verizon has both a large market share *and* the largest share of the *most efficient spectrum*.

[25] *Stone Declaration*, para. 49. And contrary to what Verizon argues in its *Opposition* (p.10), just because the company trades or sells some of its current spectrum holdings (particularly some of its Lower 700 MHz Band licenses), it is still sitting on a substantial amount of highly valuable spectrum it has no plans to utilize, certainly no plans to utilize to combat the supposed impending mobile doom that it claims it is facing in the near-term.

highly selective and misleading view of marketplace realities. For example, Applicants claim that "prices keep dropping" by citing the fact that companies like Verizon *force consumers to buy more "value*."[26] In recent years, carriers like Verizon have dropped their lower-volume and lower-priced voice, text and data "buckets" in favor of higher-priced higher-volume product buckets, with no concern for consumer utility. If this market were as "robustly" competitive as Applicants claim, carriers would offer consumers real choice between low-prices/low-volumes and the new high-priced/higher-volume product buckets. But they do not, as that would not lead to the ever-increasing average revenue per user (ARPU) metric that is the primary focus of these companies. The simple fact is Verizon doesn't actually charge by the byte, so consumers could care less about such meaningless statistics that purport to illustrate value. What consumers care about is the check they sit down at the end of every month to write to their carrier, a check that continues to rise sharply. Recent data indicates that the average monthly wireless bill was $86 in early 2011, some 25 percent higher than just four years prior.[27] Consumers are not fooled by Applicant's meaningless statistics and neither should the Commission. It is not in dispute that Verizon's margins on wireless services rose (and continues to rise) even as the company dropped unlimited data plans, forced consumers into higher priced bundles, and raised early termination fees.

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[26] *Opposition* at 48, citing declines in voice ARPU, and declines in per text or byte prices.

[27] *See* "J.D. Power and Associates Reports: Prevalence of Non-Contract Monthly Service Plans Continues to Grow, as Product Offerings Become More Competitive with Those of Traditional Contract Service Plans," JD Power and Associates, March 31, 2011; and "J.D. Power and Associates Reports: Average Length of Time Wireless Customers Keep Their Mobile Phones Increases Notably," JD Power and Associates, September 23, 2010. The 2011 data quotes above is a weighted average based on the 2011 results reported separately for contract and non-contract services.

Applicant's misleading use of statistics doesn't stop with pricing data. They claim the competitive high-road by pointing out the true fact that the *absolute* amount of capital investment in wireless networks rose during the recent economic downturn. But as they always fail to acknowledge (and as we pointed out in our *Petition to Deny*),[28] the mobile wireless revenues collected from consumers increased *at an even higher rate* during the economic downturn, resulting in the more relevant figure of capital intensity declining across the industry. Yes, carriers are spending a higher absolute level of dollars on their networks, but they are doing so because they are earning a vastly higher level of new revenues. The net result for the carriers of these increasing revenues and lower overall cost-of-service is more profit.[29]

Applicants third bit of evidence to support their contention of a robustly competitive market is their citation that the "U.S. mobile wireless marketplace includes 181 facilities-based mobile providers..."[30] This may be true, but as Verizon admits just two paragraph later[31] and the FCC[32] and DoJ[33] have indicated, the product market is a national market. The presence of a few single digit share carriers that target

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[28] *See Petition to Deny of Free Press* at note 42: "Capital intensity (the ratio of capital expenditures to revenues) is a normalized method for measuring how carriers are investing in their networks. Verizon's wireless capital intensity for 2007-2011 was 14.8%, 13.2%, 11.9%, 13.3%, and 12.8%. Capital intensity usually rises during periods of network expansion, unless revenues are rising at a substantially higher rate than capital expenditures, which appears to be the case for Verizon as it deploys LTE throughout its entire 3G network footprint."

[29] Verizon has enjoyed a steadily increasing wireless EBITDA margin, from 44 percent in 3Q 2008 to 48 percent in 3Q 2012.

[30] *Opposition* at 49, citing FCC data.

[31] *Opposition* at 49, "most pricing and advertising strategies are set at the national level, thereby minimizing the impact of local conditions on the wireless industry as a whole."

[32] *See* FCC Staff Report, 11-65, at para. 34.

[33] *See* Amended Complaint, U.S. and Plaintiff States vs. AT&T et.al., paras. 19-20.

fundamentally different market segments than the national carriers (like pre-paid) does nothing to discipline abuses of duopoly market power. Nothing that applicants can assert contradicts the reality that wireless market concentration, as measured by HHI, continues to increase to a dangerous level.[34]

Applicants offer a tortured analogy to roads to argue why the Commission should set aside any broader competition concerns,[35] but in doing so they illustrate the larger point that Verizon itself fails to grasp. Of course if Verizon and AT&T control a disproportionate amount of customers they will claim to need a disproportionate amount of spectrum. But because Verizon possesses market power and is happy to use exclusionary strategies that raise barriers to entry and competition, they are the chicken laying the egg: Verizon's competitors will have an ever-increasingly difficult time capturing market share because of the structural barrier to competition erected by the concentration in the spectrum input market.

Applicants' case that these transfers will cause no competitive harm is primarily based on the observation that "customers will have the same competitive choices post-transaction as they do today..."[36] But the public interest test requires more than just this simplistic analytical approach. The question is not how the world will look in the days and months after the transactions close, but how the transaction impacts competition in the long run, and what the market likely would have produced in the absence of the transaction. On the latter point, there can be no doubt that the cable companies involved

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[34] *See Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, 26 FCC Rcd 9664 (2011) ("*Fifteenth Report*").

[35] *Opposition* at 51.

[36] *Opposition* at 49.

in these transactions would have entered the wireless market, either as facilities-based providers or as actual (as opposed to agents), perhaps independent mobile virtual network operators (MVNOs). Yes, the MSOs here make a case that they tried and failed to enter the market,[37] which itself should raise competition alarm bells at the Commission. If the nation's largest MSOs with the ability to leverage their massive economies of scale, scope and densities, cannot enter the wireless market, then that speaks volumes to the barriers to entry in this market, barriers made far too high because of the Twin Bell's market power.

On the issue of how the consolidation of the spectrum input market would impact competition in the long term, Petitioners and Commenters have offered numerous arguments as to why the Commission should be concerned, issues raised by the Commission itself in recent license proceedings.[38] Applicants however are quick to dismiss all of these concerns as either overstated or addressed by broader FCC policies. For example, despite the declarations from the MSOs of the difficulties in entering the market due to data roaming issues,[39] Applicants dismiss roaming concerns because "the Commission has addressed these issues comprehensively."[40] This is simply cold comfort coming from Verizon, who is currently in litigation to *overturn* these very data roaming rules that it now claims will protect against the very likely marketplace harms caused by these transactions. This attitude is yet another reason why the Commission should

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[37] *Opposition* at 33.

[38] *AT&T Inc. and Qualcomm Inc.*, Order, FCC 11-188, Dec. 22, 2011 ("*AT&T-Qualcomm Order*"), at paras. 43-58; 69-72.

[39] *See e.g.* Response to Specification No. 7, Bright House Networks, WT Docket No. 12-4, March 22, 2012. "BHN considered roaming availability and pricing to be one of the major obstacles to an effective entry into the wireless market, and it was one of the major uncertainties of any model created. As such, roaming was consistently a key component of the analysis and a key risk factor. BHN attempted to negotiate roaming agreements, but was unable to obtain commercially reasonable terms."

[40] *Opposition* at 65.

squarely focus its public interest analysis on the broader long-term challenges to competition present in the mobile markets.

Applicants want the Commission to believe the proposed transfers are no different from several recent transactions approved (and conditioned) by the Commission.[41] But they are wrong. The Commission is in uncharted waters. These transactions present larger competitive issues that are only seen in the few mergers of national carriers that the Commission has faced over the last decade, yet are cloaked in the seemingly non-threatening vein of license transfers. Transactions like *Aloha-AT&T* and *NextWave-Cingular* occurred in a more competitive market, where the value of spectrum, distribution of customers and profits were not as concentrated as they are today. And no license transfer considered by the Commission over the past decade involved an *integrated* agreement for the nation's largest wireless provider and largest fiber optic broadband provider to join forces with the nation's three largest cable MSOs. Applicants may believe that Petitioners have failed to present facts or evidence that specific competitive harm would result from these transfers, but the record suggests the opposite it true.[42]

We agree in one respect with Applicants' economist-for hire: "the Commission's objective in evaluating the proposed license assignments should not be to promote the

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[41] *Opposition* at 31-32.

[42] *Opposition* at 42. Applicants are comparing apples to oranges when it cites the Commission's recent rejection of an RTG Petition to Deny a very localized transfer of spectrum from BTA Ventures to AT&T. However, the instant proceeding involves a nationwide block of highly valuable LTE spectrum, not a single market license. The facts and evidence raised by Petitioners in the instant proceeding are similar to the level of specificity offered in ATT-T-Mobile proceeding, facts that the Commission itself used to block that deal. Verizon is simply being disingenuous here though, because in the next sentence they criticize RCA for asking for the exact kinds of market-by-market data Verizon itself says is needed to analyze the competitive impacts of these license transfers.

interest of specific wireless service providers"[43] – *specifically the Commission should not be concerned with promoting Verizon's interest.* It is not the Commission's job to make sure Verizon's market share and profits keep increasing; its only concerns should be to preserve the public interest and promote competition, as is required by the Communications Act. If 2016 rolls around and Verizon has some cells that become unbearably congested because they didn't do everything they could to alleviate it (aside from attempt to monopolize the spectrum input market), they might alleviate that congestion by losing some customers to other carriers, and that would be a *good thing* for the public interest.

Verizon may be the largest carrier, but it only got there through a combination of its legacy as a RBOC and the advantages conferred upon it by the Commission's granting of numerous vertical and horizontal mergers over the past decade. It's current size and market power virtually guarantee that it is insulated somewhat from the normal forces of competition from its smaller rivals. These transactions would only increase that market power and further remove consumers from the benefits of real competition. If Verizon wishes to maintain its status, then it should do the relatively harder work (in comparison to spectrum acquisitions) of innovating and network planning that its smaller rivals do as a matter of routine just to tread water. If it does not do these things, and there are competitors that have somehow managed to survive the anticompetitive RBOC-wireless onslaught, then those competitors can offer future disaffected Verizon customers an alternative. Contrary to Applicants assertions, we are not asking that the Commission

[43] *Katz Declaration* at 10.

consider an alternative transaction.[44] We are simply arguing that the Commission does not need to consummate this one and that doing so would harm the public interest. But if the Commission does reject these transactions, the spectrum will find its way to someone else, because of its inherent value.

And that brings us to the issue of the current flawed spectrum screen and our and others suggestions that the Commission analyze these transfers through a lens of spectrum value. Applicants are vigorously opposed to such a suggestion, because if a valuation approach were used, these license transfers would violate the DoJ's *Horizontal Merger Guidelines*.[45] Applicants argue that mere MHz matter, and repeatedly cite Clearwire as an example of why size and not the quality of spectrum should be the Commission's only concern.[46] But Clearwire serves as a counterfactual and illustrates exactly that size doesn't matter nearly as much as value. Clearwire's market capitalization lost half of its value in 2011; its wireless penetration rate is below 8 percent, and nearly all of these are customers from Sprint (9.1 of its 10.4 million subscribers come through its wholesale channel); and the company continues to teeter on the brink of bankruptcy, with its net income losses increasing to a high of $2.9 billion in 2011.[47] These results tarnish a little of the shine on any rosy statements that Clearwire

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[44] *Opposition* at 63.

[45] *See Petition to Deny of Free Press* at 18. "If Verizon is allowed to acquire SpectrumCo. and Cox's AWS-1 licenses, these data indicate that the HHI for the mobile broadband spectrum input market will increase by more than 350 points, to a post-acquisition level above 2,000. The DOJ considers that transactions 'resulting in moderately concentrated markets that involve an increase in the HHI of more than 100 points potentially raise significant competitive concerns and often warrant scrutiny.'"

[46] *Opposition* at 50.

[47] *See* Clearwire 10-K filings from 2008-2011. If we attribute Clearwire's holdings to Sprint (who does provide most of their business), it changes very little. Sprint hasn't turned a profit in many years, with a net income of negative $2.8 billion in 2011.

may have made about the superiority of its spectrum holdings, and it is easy to imagine that Clearwire would be more than happy to swap its holdings for Verizon's. At the very least, it is likely that Clearwire would be very happy to help Verizon address any future capacity concerns by leasing Verizon some of its excess network capacity.[48]

Verizon argues that the current spectrum screen is adequate, and if any changes are made, it should be to increase the screen levels, not lower them. [49] We agree that the G block should come in, but would suggest that in a flat (non-value based screen) that some of SMR and upper D-block has to go out of the screen. Further, MSS ATC has no place in a flat screen, since no services are planned and Dish's holdings here are the subject of what will likely be a long and drawn out FCC proceeding (there's no need to even discuss Lightsquared's holdings at the appropriateness of including that spectrum in any screen). WCS could be included, but it would be misleading, since the majority holder of these licenses have said plainly that WCS spectrum is not suited for mobile deployment (in addition to the fact that the other major holder of WCS spectrum is Comcast, who now appears to have no interest in using it for mobile deployment).[50] But

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[48] *See Opposition* at 59, "Different bands have different characteristics that can make them more or less attractive to a given carrier at a given time depending on many factors. For example, as the Commission has stated, "higher-frequency spectrum may be just as effective, or more effective, for providing significant capacity, or increasing capacity, within smaller geographic areas." Indeed, carriers that rely heavily or exclusively on spectrum over 1 GHz have emphasized the capacity benefits of higher band spectrum." (internal citations omitted). If Verizon truly believes that BRS/EBS spectrum is more effective for increasing capacity within the very kinds of small and urban geographic areas that it claims it will soon face capacity constraints in, then it is curious why Verizon has not pursued a network sharing or spectrum leasing partnership with Clearwire. Such an arrangement would certainly not raise the myriad of competitive issues brought by the transfers in the instant proceeding.

[49] *Opposition* at 56.

[50] *See Joint Opposition of AT&T Inc., Deutsche Telekom AG, and T-Mobile USA, Inc. to Petitions to Deny and Reply to Comments*, WT Docket No. 11-65, June 10, 2011, at

were WCS to be included in any screen, and analyzed under a sensible screen (i.e. HHI, and not the arbitrary 1/3 screen) it would just increase HHI because of AT&T's substantial spectrum holdings. But Applicants' suggestion to include more BRS/EBS spectrum is merely an attempt to water down the real world implications any spectrum screen.[51] As discussed above, Clearwire offers little to no competitive discipline to the Twin Bells, and is at present a company in search of a lifeline.

As mentioned above, Applicants contend that the Commission's focus should not be on how much (or how much value of) spectrum any particular carrier holds, but instead on the amount of spectrum available to other providers.[52] This is a plainly strange and self-serving way for Verizon to view the market. It flies in the face of established antitrust analysis of input markets, where authorities are rightly concerned with the concentration of resources in the input markets. Ignoring the value of spectrum and

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[51] *Opposition* at 57. Applicants charge T-Mobile with being inconsistent because the carrier previously lobbied the Commission to include 194 MHz of BRS/EBS spectrum in the screen. While true, this charge is ultimately meaningless. The Commission can decide for itself if T-Mobile's underlying points are valid. The Commission can also recognize the obvious and well-worn truism that companies before the FCC who want the FCC to grant them something are prone to making their case, and will have no problem flipping if that is what current matters dictate. Verizon itself has demonstrated this behavior when it comes to the question of the Commission's authority to include broadband in the USF program. *See e.g.* Comments of Verizon and Verizon Wireless, WC Docket No. 05-337, April 17, 2008 at p. 34 ("The Commission lacks statutory authority to add broadband to the supported services list. The Commission's authority to use federal high cost subsidies to promote universal service is limited to 'telecommunications services.' As the Commission has found, and the courts affirmed, broadband Internet access service is an information service, not a telecommunications service. Thus broadband does not qualify under section 254 as a supported service eligible for high cost subsidies.") *Compare with* Comments of Verizon and Verizon Wireless, WC Docket No. 05-337, July 12, 2010 at p. 1 ("the Commission's proposal to phase out the legacy high cost voice mechanisms and phase in support for broadband over the next several years strikes an appropriate balance.").

[52] *Opposition* at 58.

resting concentration analysis on a simple one-third trigger masks the actual harms that this market faces. For example, consider six hypothetical carriers, Carrier Alpha through Carrier Zeta. In once scenario Carrier Alpha and Beta control 33 percent of all spectrum, Carrier Gamma controls 31 percent, with the remaining spectrum divided between the other three carriers. In such a scenario the FCC's spectrum screen would not be triggered, even though the HHI for such a market (based solely on MHz holdings, not value) would be at a stratospheric 3,142 level. In contrast, a hypothetical market where the MHz of holdings were distributed more equally, the HHI would be at a far lower value of 1,800 (see Figure 1):[53]

Figure 1: Why The FCC's One-Third Holdings Screen is Flawed

Company	Spectrum Share - Scenario 1	Spectrum Share - Scenario 2
Company Alpha	33%	25%
Company Beta	33%	22%
Company Gamma	31%	20%
Company Delta	1%	15%
Company Epsilon	1%	10%
Company Zeta	1%	8%
HHI	3,142	1,898

We urge the Commission to adopt a more sensible spectrum screen, one that at the very least moves away from the arbitrary one-third screen and to an HHI-based approach. But given the wide differences in the quality of available spectrum, it is certainly appropriate for the Commission to consider, in this instant proceeding, a screen based on spectrum value. Applicants charge that our and other Petitioners' calls for a value-based screen are "unwarranted and complex" and motivated by "allegations of speculative harm."[54] But nothing is speculative about the harms that drives the calls for a

[53] This is certainly a "credible analysis... as to how the current trigger of one-third of available spectrum is inadequate..." *See Opposition* at 58.

[54] *Opposition* at 58.

value-based screen; its simply a concern about past being prologue. The Commission only need look at the market trends over the past half decade; it can look at the experiences of Clearwire (the only national new entrant), or look at the fate of SpectrumCo and Cox themselves as examples of the barriers to entry created by concentration of valuable spectrum with the Twin Bells.

We agree that there is no simple way to construct a value-based spectrum screen, and said as much in our *Petition*.[55] Yes, auction valuations in isolation are not enough to create a value-weighted screen, but recent auctions, along with book values and specific market sales all form a collective pool of information that can help inform a value-weighted screen, one that can help the Commission determine the impact to competition and the public interest of approving transactions that will otherwise make the top-heavy market problems worse. We remind the Commission that a screen is just that – a tool that guides the Commission when a license transfer may require further review. It is not a bright line tool like a spectrum cap. And there is no reason why the Commission should not, as a part of its review of these applications, consider the change in HHI in the spectrum input market based on value. Would such an approach be imprecise? Probably, but that alone is no reason not to do it. More than 3,000 counties across the U.S. raise a substantial portion of their tax revenues using admittedly imprecise property valuation tools, and in many cases these assessments differ from a price later determined for a specific piece of property sold in the market.

Applicants' economist-for-hire Michael Katz charges that the proponents of a

[55] *See e.g. Opposition* at 60, citing Free Press.

value-based screen have no underlying consumer welfare theory.[56] He is wrong. Monopolization of the input market harms consumer welfare. It is simply an unserious position to think if Verizon had all of the spectrum below 2.3GHz, and everyone else had only spectrum above that frequency, that such an outcome would be good for consumer welfare. Dr. Katz is right that the prices fetched for 700 MHz spectrum in Auction 73 varied, but this is precisely because factors like block position, geography and geographic block size matter to auction valuations.[57] This information is known, as is a host of other information about why certain licenses fetch differing prices on the secondary market. The point is not for the Commission to construct a valuation methodology that will be used to set market prices, but to use all available information in a reasoned manner to construct a useful tool that reflects the competitive advantages of certain spectrum licenses.[58]

III. The Joint Marketing and Operating Agreements Are Tied To the Spectrum Transfers and Are Counter to the Policy Goals of the Communications Act

Applicants have seemed to change their tune on the nature of the integration of the spectrum sales with the joint marketing and operating entity agreements. While they have argued in their *Application* and *Opposition* that the license transfers and commercial agreements are "separate," they now freely admit that the two are integrated

[56] *Katz Declaration* at 35.

[57] *Katz Declaration* at 36.

[58] Dr. Katz offers a bit of Ricardian Equivalence in his declaration (p. 37) to argue that spectrum value does not matter. However, this line of argument ignores many fundamental aspects of the mobile wireless market: the Bells got their original Cellular spectrum for free; the quality of spectrum manifests itself in more ways than tower densities and buildout costs (e.g. building penetration), ways that are important on the consumer-side; and the overall short and maybe even long-run marginal costs curves are probably different given LEC advantages, economies of scale, and spectrum depth in establish bands.

transactions.[59] Yet Applicants still maintain that the Commission has no role in reviewing these agreements. This is simply incorrect. The Commission's statutory mandate is to ensure that a transfer serves the public interest, and the Commission is clearly directed by Congress to include "such other matters as the Commission may officially notice," in addition to the application, as part of its review.[60] These other provisions of the license transfer agreement have a substantial impact on whether Commission approval of the application would serve the public interest.

Applicants trot out several examples of past license transfers that had associated commercial agreements, but none of the examples it offers comes even remotely close to the level of integration seen in the transactions currently before the Commission. Similarly, the public interest issues raised by DISH Network and DIRECTV partnering with LECs that lack MVPD services are not even close to the potential harms created by the competition détente reached between Comcast, TimeWarner Cable, Cox, Bright House, and Verizon.

Applicants also criticize petitioners for citing potential violations of antitrust laws and guidelines, but somehow seem oblivious to the fact that an integrated spectrum license transfer that has associated commercial agreements that violate the antitrust laws may in fact also be contrary to the public interest. The Commission in fact was prepared

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[59] *See e.g.* Response to Specification No. 18, Bright House Networks, WT Docket No. 12-4, March 22, 2012. "BHN would not have entered into the Spectrum License Purchase Agreement had the other parties not come to terms on the commercial agreements. In that sense, the transactions were integrated. This integration was important for BHN's goal of establishing a viable strategy and business plan to provide wireless options to its customers. BHN viewed the spectrum as a strategically important element of that plan, and it would not have relinquished the AWS licenses without having in hand alternative ways of achieving its wireless goals."

[60] 47 U.S.C. § 309(a).

to reject the AT&T-T-Mobile merger as not being in the public interest chiefly because it would have violated antitrust law.[61]

The joint operating entity (JOE) arrangement and joint marketing agreements (JMAs) simply represent an agreement between these companies to stay out of one another's way, in perpetuity. The agreements are designed to divide the market for wireline at-home broadband service between the cartel of companies that are party to the deal, and to give these companies more control over the pace of innovation to ensure that any future products and services do not undermine their legacy revenue streams of video and fixed broadband services. Openly striking deals to sell your rival's services is not the kind of competition the Telecommunications Act envisioned. The cutthroat competitive environment that pushes innovation forward and forces companies to continually invest in rolling out better products and services is born from companies doing everything they can to steal away their competitors' customers, not by offering to sign up your own customers for rivals' services.

With this transaction, it is clear that offering perpetual reciprocal marketing was the price Verizon paid for a seat at the table to negotiate the price of keeping this spectrum out of the hands of potential competitors. On the other side of the ledger, the cable companies need an assurance that the spectrum asset they are selling would not be used against them either in areas where they directly compete with Verizon FiOS, or by Verizon striking deals to offer quad-play services with satellite video providers.

For the average American consumer, this means higher cable and Internet bills every month; it means higher wireless bills; it means the cable-programming cartel will

[61] *See* FCC Staff Report, 11-65, at para. 5, "A transaction that violates the Clayton Act would not be in the public interest."

likely never be broken up; and ultimately it means the quality of U.S. communications networks will continue to trail that of many other developed nations, as the lack of real competition will mean less incentive to invest in R&D and network upgrades. These are serious impacts to the public interest, and the Commission must give them proper consideration.

IV. Conclusion: Conditions May Help Keep Competition on Life-Support, But Are No Substitute for Competition Policy

Some parties that oppose these deals are already calling for specific transaction conditions, motivated by the belief that the transaction will ultimately be approved because that is simply the way things are done in Washington. The same sentiment was seen in the AT&T-T-Mobile transaction at the same point in the proceeding; it wasn't until the totality of the evidence from the interrogatories was analyzed that the analytical weight against the transaction was enough to offset the political momentum for it. We suspect history may repeat itself here, and we will (like the Commission surely will) devote time to examining the responses to the Commission's requests for further information, responses that have just begun to trickle in.

But we suggest here that no set of conditions could remedy the harms that will be caused by these license transfers and joint marketing and operating arrangements. Any behavioral conditions will be studiously evaded, as is common practice. Any structural conditions like mandated roaming and buildout requirements would simply be bandages on the festering wound to competition caused by this and prior market consolidating deals.

Applicants have a fundamental belief that an unregulated duopoly best serves the public interest. We respectfully disagree, and based on its recent actions, we believe the

Commission rejects this view as well. The question before the Commission is then, are conditions a substitute for competition policy? If the Commission believes the answer to that question is no, then it has no choice but to reject these deals and turn its attention to developing a long-term, sustainable competition policy.

Respectfully submitted,

_____/s/_____

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