



601 Pennsylvania Ave., NW  
Suite 800 – North Building  
Washington, DC 20004  
202-654-5900

September 18, 2013

The Honorable Greg Walden  
Chairman  
Subcommittee on Communications and Technology  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515-6115

Dear Chairman Walden:

Thank you once again for the opportunity to allow me to testify before the Communications and Technology Subcommittee. I hope you found my testimony as valuable as I found the hearing to be.

Enclosed are my responses on behalf of T-Mobile US to the questions for the record, along with a chart that supplements my answer to the first submitted question.

Please let me know if you have any questions, and please don't hesitate to reach out if I, or anyone on T-Mobile's federal government affairs team, can be helpful to you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathleen O'Brien Ham'.

Kathleen O'Brien Ham  
Vice President, Federal Regulatory Affairs

Enclosure

**RESPONSES OF KATHLEEN O'BRIEN HAM TO QUESTIONS FOR THE RECORD  
FROM HON. ANNA ESHOO**

**1. In your testimony, you indicated that the two largest carriers received about half of their “beachfront” spectrum below 1 GHz for free from the government in the early 1980s when cellular licenses were handed out to the local telephone companies. AT&T disputed this statement at the hearing. Can you explain what you meant?**

AT&T's and Verizon's spectrum holdings below 1 GHz include 20 MHz of cellular spectrum in the 800 MHz band that was granted *for free* to the local Bell operating companies in each of their markets in 1981, and the additional 5 MHz of cellular spectrum granted to them *for free* in 1986. While it's true that the Bells have since supplemented their free spectrum by purchasing additional cellular licenses from their competitors, such as Metromedia and McCaw Cellular, those licenses were also originally issued *for free*. Attached to my answers is a brief history of AT&T's acquisitions of cellular spectrum.

**2. You testified that “beachfront” spectrum below 1 GHz is uniquely valuable, but AT&T argued that you were overstating the importance of this spectrum – that capacity, not coverage, is what is important. Can you explain the significance of spectrum below 1 GHz, even in urban areas where coverage may not be as much of an issue as in rural areas?**

Low-band spectrum is uniquely valuable because, in addition to providing superior rural coverage, it can penetrate buildings far better than high-band spectrum. Carriers need to be able to provide good in-building coverage in order to be able to compete effectively. That's true in urban and rural areas. The significance of reliable in-building penetration was reinforced by a recent Cisco study suggesting that 80% of wireless data communications takes place indoors.<sup>1/</sup> For many younger adults, lower-income Americans, and minorities, cell phones are often a primary device for accessing online content.<sup>2/</sup>

Notwithstanding AT&T's efforts at the hearing to downplay the importance of low-band spectrum, AT&T itself has consistently recognized that this spectrum is critical to providing in-building coverage. For instance, Randall Stephenson, AT&T's Chairman and CEO, has characterized 700 MHz spectrum as “beachfront property” that “propagates like a bandit.”<sup>3/</sup> In explaining the difference between cellular and higher-band spectrum, AT&T's website says that cellular band spectrum at “850 MHz offers better in-building coverage because the signal can

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<sup>1/</sup> See Cisco, *Connected Life Market Watch*, at 28 (Aug. 2011), available at [http://www.cisco.com/web/about/ac79/docs/clmw/CLMW\\_Service\\_Delivery\\_US\\_Short.pdf](http://www.cisco.com/web/about/ac79/docs/clmw/CLMW_Service_Delivery_US_Short.pdf).

<sup>2/</sup> See Pew Research Center, *Cell Internet Use 2013*, at 2 (Sept. 16, 2013), available at [http://pewinternet.org/~media/Files/Reports/2013/PIP\\_CellInternetUse2013.pdf](http://pewinternet.org/~media/Files/Reports/2013/PIP_CellInternetUse2013.pdf).

<sup>3/</sup> See Craig Matsumoto, *AT&T Parties Like It's 1999*, HEAVY READING, available at [http://www.heavyreading.com/document.asp?doc\\_id=140162](http://www.heavyreading.com/document.asp?doc_id=140162); Transcript: AT&T's Randall Stephenson on the Network's Strength, CNN MONEY (July 18, 2012), available at <http://tech.fortune.cnn.com/2012/07/18/randall-stephenson-att/>.

better penetrate walls than signals at other frequencies.”<sup>4/</sup> AT&T public statements have also highlighted this benefit.<sup>5/</sup>

The Commission and the Department of Justice have also consistently recognized that spectrum below 1 GHz is more valuable than spectrum above 1 GHz because its more favorable propagation characteristics allow for better coverage inside buildings and across larger geographic areas.<sup>6/</sup> As a recent filing by the Competitive Carriers Association (“CCA”) showed, regulatory authorities in other nations have likewise noted that low-band spectrum is particularly important to promoting the cost-effective deployment of mobile broadband service in urban as well as rural areas because of its superior in-building and geographic coverage.<sup>7/</sup>

**3. In your testimony, you stated that Congress and the FCC have long recognized the importance of reasonable spectrum aggregation limits. In support of this statement, you referred to the auction statute of 1993 and the spectrum cap that the FCC imposed in the PCS auction shortly thereafter. Doesn’t the Public Safety and Spectrum Act from last year preserve the FCC’s authority to take similar actions with respect to the incentive auction?**

The Spectrum Act specifically preserves the FCC’s authority to “adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition.”<sup>8/</sup> Band-specific spectrum limits would be well within this authority. Such limits would apply to all potential bidders in the auction, *i.e.*, no bidder could acquire in any market an amount of new spectrum over the specified limit.

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<sup>4/</sup> AT&T, “About Us, What You Need to Know About Your Network,” <http://www.att.com/gen/press-room?pid=14003>.

<sup>5/</sup> AT&T Press Release, *AT&T Offers Nation’s Fastest 3G Network* (July 10, 2008), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=25921&mapcode=financial|mobile-devices> (“[T]he company is deploying additional 3G coverage using 850 megahertz (MHz) spectrum that is now available from the recent sunset of its older TDMA network. This spectrum extends farther and better covers the interior of buildings.”).

<sup>6/</sup> See, e.g., *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Sixteenth Report, 28 FCC Rcd 3700, ¶ 121 (“[I]t is well established that lower frequency bands possess certain more favorable spectrum propagation characteristics than spectrum in higher bands . . . . In particular, “low-band” spectrum can provide superior coverage . . . inside buildings and vehicles.”); *Ex Parte* Submission of the United States Department of Justice, WT Docket No. 12-269, at 13 (filed April 11, 2013) (“In particular, the propagation characteristics of low-frequency spectrum permit better coverage in both rural areas and building interiors.”).

<sup>7/</sup> See Letter from Rebecca Murphy Thompson, General Counsel, Competitive Carriers Association, to Ms. Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-269 and GN Docket No. 12-268 (filed Sept. 4, 2013). T-Mobile is a member of CCA.

<sup>8/</sup> 47 U.S.C. § 309(j)(17).

While the impact of spectrum limits on a particular entity will depend on the entity's existing spectrum holdings, it is well established that a rule is of general applicability even if its effect is limited to only a subset of entities within an industry sector. Indeed, courts have affirmed that a rule of general applicability is one that has "a direct and significant impact upon the substantive rights of the general public *or a segment thereof*."<sup>9/</sup> As long as the rule is based on a "genuine classification," such as, for instance, the amount of band-specific spectrum a carrier could hold, the rule would be considered a rule of general applicability even if it affected only a few parties.<sup>10/</sup> A rule need not have "industry-wide" effect in order to be considered generally applicable.

Finally, it is worth noting that the Spectrum Act did not alter the statutory directive to the Commission to design auctions to promote the deployment of new products and services, economic opportunity, competition, and the dissemination of licenses "among a wide variety of applicants."<sup>11/</sup> Reasonable spectrum limits would promote these goals by ensuring that all carriers to have a meaningful opportunity to participate in future auctions.

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<sup>9/</sup> *Lewis v. Weinberger*, 415 F. Supp. 652, 659 (D.N.M. 1976) (*emphasis added*); *see also Aiken v. Miller*, 442 F. Supp. 628, 653-54 (E.D. Cal. 1977) ("A substantive rule of general applicability . . . is a substantive rule which changes existing practice and has a substantial impact on a segment of those regulated.").

<sup>10/</sup> *See Am. Airlines v. Civil Aeronautics Bd.*, 359 F.2d 624, 631 (D.C. Cir. 1966) (finding that rules based on a "genuine classification" are permissible as generally applicable rules even if they have the effect of treating different classes of competitors within an industry differently, as long as the "classes . . . [are] analyzed both functionally and in terms of capacity for furthering the promotional purposes of the [statute]" and the rule is not "individual in impact and condemnatory in purpose").

<sup>11/</sup> 47 U.S.C. § 309(j)(3)(A)-(B).

## **BRIEF HISTORY OF AT&T'S CELLULAR SPECTRUM HOLDINGS**

**1981:** The FCC allocates one of two 20 MHz blocks of 800 MHz cellular frequencies to local telephone companies, who receive licenses for free. That includes AT&T, through its ownership of the Bell Operating Companies. The other 20 MHz block (the “non-wireline” block) is made available to other entities, who must compete for it through comparative hearings.

**1982:** Congress passes a law authorizing the FCC to use lotteries to award non-wireline cellular licenses.

**1984:** At the breakup of AT&T, the cellular frequencies issued to AT&T are passed to the divested Regional Bell Operating Companies (“RBOCs”). The RBOCs include Southwestern Bell, Pacific Telesis, Ameritech, and Bell South.

**1986:** The FCC allocates an additional 5 MHz to each cellular licensee, again for free.

**1986:** The Commission allows Pacific Telesis to buy the non-wireline cellular license outside its local telephone area. This sparks a wave of acquisitions of non-wireline systems by other Baby Bells. The Justice Department, the FCC, and the courts agree that such acquisitions are allowed by the terms of the Bell System breakup.

**1987:** Southwestern Bell, the predecessor of today’s AT&T, purchases Metromedia’s non-wireline and paging licenses for \$1.65 billion.

**1994:** AT&T Corp., the long-distance predecessor of the current AT&T, acquires McCaw Cellular for \$11.5 billion. McCaw’s owner, Craig McCaw, bought the cellular rights of non-wireline lottery winners across the country and combined them with the cellular rights he acquired in the initial lottery of cellular licenses. The company is renamed AT&T Wireless.

**1995:** Southwestern Bell changes its name to SBC Communications Inc.

**1997:** SBC Communications Inc. merges with Pacific Telesis.

**1999:** SBC Communications Inc. acquires Ameritech.

**2004:** Cingular Wireless – which was jointly created and owned by SBC Communications Inc. and BellSouth Corp. – purchases AT&T Wireless for \$41 billion, creating the country’s largest mobile phone provider.

**2005:** SBC Communications purchases AT&T Corp. in a \$16 billion transaction. The company becomes AT&T, Inc.

**2006:** AT&T Inc. and BellSouth Corp. merge, thereby consolidating ownership of Cingular Wireless under one brand, AT&T.