



October 2, 2009

Via Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW – A325
Washington, DC 20554

Re: Written Ex Parte Presentation in WT Docket Nos. 07-195 & 04-356 and GN Docket 09-51

Dear Ms. Dortch:

M2Z Networks files this *ex parte* in response to a September 29, 2009 filing by CTIA in GN Docket No. 09-51 and a September 17, 2009 filing by Ericsson Inc. in the AWS-3 proceeding. Both CTIA and Ericsson contend that the Commission should attempt to globally harmonize the AWS-3 band. However, both the CTIA and the Ericsson proposals violate the very principle they espouse as both parties suggest configurations that are inconsistent with global allocations. In addition, the proposals violate the FCC tenant of technical neutrality and arrive at their conclusions by ignoring, rather than analyzing, critical (and widely available) data. For example, CTIA fails to grapple with the fact that its proposal would add years of senseless delay to the availability and use of AWS-3 and exacerbates what CTIA itself has dubbed a “looming spectrum drought.” To the extent these submissions relate to the AWS-3 rulemaking, the filings of both Ericsson and CTIA lack merit.

CTIA FILING

CTIA argues that the FCC should work to make the AWS-3 band globally harmonized by pairing the 1755-1780 MHz and 2155-2180 MHz.¹ This argument fails for a number of reasons. First, such a pairing is inconsistent with global allocations. Second, while Tables A & B

¹ See Letter from Christopher Guttman-McCabe, CTIA, to Chairman Julius Genachowski, Commissioner Michael J. Copps, Commissioner Robert M. McDowell, Commissioner Mignon Clyburn and Commissioner Meredith Attwell Baker, GN Docket No. 09-51 (filed Sept. 29, 2009) (“CTIA Ex Parte”). We note that CTIA and Ericsson appear to rely on a paper by 3G Americas that was not filed in the AWS-3 docket entitled “3GPP Technology Approaches for Maximizing Fragmented Spectrum Allocations.” In the paper 3G Americas’ paper argues for global harmonization of the AWS-3 band in order to maximize “fragmented spectrum.” 3G Americas defines fragmented spectrum as “spectrum that diverges from regional and/or global spectrum allocations, and consequently fails to benefit from scale economies and other advantages that flow from such spectrum alignment.” See 3G Americas Paper at Section 1.1 ¶ 1. However, when one examines the 17 FDD “operating bands” that 3G Americas contends are “commonly used across the globe for commercial mobile services” 16 out of 17 of those bands would qualify as “fragmented spectrum” thereby defeating 3G Americas’ central thesis that a multilateral approach to spectrum harmonization is something that can be achieved or has some utility on its own.

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demonstrate that U.S. allocations often diverge from global allocations, CTIA's own data paints the picture that the U.S. wireless marketplace has not suffered and indeed continues to thrive despite the prevalence of numerous allocations that are not globally harmonized.²

More importantly, CTIA's filing completely ignores the negative impact of the pairing it proposes. For all practical purposes there is unanimity, inside and outside the government, that the process of bringing spectrum to market is far too lengthy. Recognizing the slow pace of spectrum allocations, the September Commission Agenda Presentation indicates that "It will take years for any new spectrum to reach the market, so we must act now."³ The delays associated with getting spectrum to market are even more pronounced for spectrum requiring reallocation. The September Meeting Presentation explains that "spectrum reallocation is a multi-year process."⁴ Specifically, the Presentation highlighted that the allocation of PCS and AWS-1 took six years while the allocation of Cellular and 700 MHz took over a decade to accomplish.⁵ CTIA is well aware of this dynamic and elsewhere in its filing explains that there are "long lead times necessary to achieve major spectrum allocations."⁶ Thus, it is stupefying that CTIA would suggest that the FCC pair AWS-3, one of only three bands that the Commission itself has recognized is currently in the "spectrum pipeline"⁷ with 1755-1780 MHz, a band that is commercially unavailable.⁸ CTIA's call for delay in bringing AWS-3 to market is a glaring and telling inconsistency in its advocacy.

M2Z recognizes that CTIA and certain of its member companies have consistently made arguments that the FCC should delay the introduction of services in the AWS-3 band.⁹ But there is no public interest benefit to additional calls for delay in allowing Americans to have access to their spectrum assets. The AWS-3 band should not be held in abeyance by reallocation, government relocation, interference analyses, and perhaps federal reimbursement legislation. Such a result would impede the ability of new entrants to immediately deploy data services in the AWS-3 band and frustrate the goals of the FCC's ongoing Broadband Plan. At this critical juncture, the Commission should decline CTIA's absurd invitation to throttle the spectrum pipeline.

² CTIA's own data highlights how the U.S. wireless industry is thriving without significant global harmonization of domestic spectrum. Notably, the Association explains that, among other things, the U.S. has the largest mobile data market and the U.S. has more mobile Internet users than any other country. See Letter from Scott Bergman, CTIA to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-51, 09-47, 09-137, 09-157; WT Docket Nos. 08-165, 08-166, 08-167, 09-66, Enclosure at slides 1-2 (filed Sept. 14, 2009).

³ See September Commission Meeting Presentation at slide 63 (Sept. 29, 2009).

⁴ See September Commission Meeting Presentation at slide 73 (Sept. 29, 2009).

⁵ *Id.*

⁶ CTIA Ex Parte at 16.

⁷ See September Commission Meeting Presentation at slide 74 (Sept. 29, 2009).

⁸ While the Commission may wish to explore potential commercial use of 1755-1780 MHz, CTIA's proposal is ill-advised. We note that the Commission may decide that an unpaired configuration is most appropriate for that band. In the event the Commission was to elect a paired configuration it should do so in the context of other spectrum that requires additional grooming.

⁹ For example, T-Mobile alone explicitly petitioned the FCC for delay of AWS-3 service rules ten times in 2008.

ERICSSON FILING

Ericsson claims that the AWS-3 band should be globally harmonized because “it is important to account for international usage when deciding how spectrum can best be used.”¹⁰ Ericsson fails to mention that regional, much less, global harmonization is exceedingly rare as highlighted in Tables A & B below.¹¹ Ericsson also fails to explain the reality that multiple paired spectrum blocks (including AWS-1 and 700 MHz) were allocated and assigned in the United States in a manner inconsistent with regional and global allocations. Ericsson’s solution to its manufactured “harmonization problem” would unreasonably limit the deployment of competing technologies. This is particularly troubling in light of the well documented fact that TDD technologies have had limited deployment opportunities in the U.S.¹²

In any event, Ericsson’s proposal does not even address the problem it perceives. The asymmetric allocation of 1710-1755 MHz (a total of 45 MHz) paired with 2110-2175 MHz (a total of 65 MHz) has no regional or international counterpart. Simply put, the Ericsson proposal itself is not globally harmonized. What the proposal seeks to accomplish (though not spelled out explicitly) is to limit new entry¹³ and prohibit TDD technologies in AWS-3. M2Z has consistently advocated for technologically neutral rules in the AWS-3 band.¹⁴ If Ericsson or others believe that they can utilize AWS-3 in an asymmetric manner, those parties should bid for the spectrum and deploy it in whatever direction suits their needs. As was the case in BRS-EBS and 700 MHz, the Commission should not (and need not) mandate downlink only in AWS-3 and preclude robust TDD use of the band. Instead, the Commission should ensure that the ultimate licensee, regardless of its chosen technology path, deploy its network consistent with several key

¹⁰ See Letter from Mark Racek, Ericsson Inc, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 07-195 (filed Sept. 17, 2009) (“Ericsson Ex Parte”).

¹¹ As indicated in Table A below, in ITU Region 2 (which includes the United States, Canada, Central America, South America, Greenland and some of the eastern Pacific Islands) all but 1 of the FDD bands that a 3G Americas paper indicated were “most commonly used across the globe for commercial mobile services” are not regionally harmonized. See 3G Americas, 3GPP Technology Approaches for Maximizing Spectrum Allocations, at Section 1.3.1 ¶ 2 (Jul. 2009). Table B demonstrates that none of the 17 FDD bands is “globally” harmonized.

¹² See Comments of Marcus Spectrum Solutions, WT Docket Nos. 07-16 and 07-30, at 7 and 12 (filed Mar. 2, 2007). See also Table C.

¹³ M2Z has previously raised concerns about the anti-competitive nature of assigning AWS-3 in a manner that would benefit only incumbent carriers. See Comments of M2Z Networks, Inc. WT Docket No. 07-195 at iv (filed Dec. 14, 2007) (an “asymmetric pairing option presented under the downlink-only approach . . . would put the Commission in the position of playing a ‘reverse Robin Hood’ role, taking spectrum access opportunities away from potential new entrants and giving them to ‘spectrum rich’ incumbents.”).

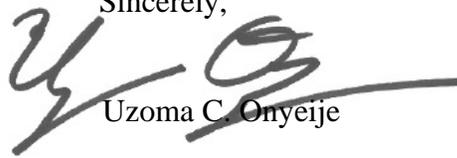
¹⁴ See Comments of M2Z Networks, Inc. WT Docket No. 07-195 (filed Dec. 14, 2007); Reply Comments of M2Z Networks, Inc. WT Docket No. 07-195 (filed Jan. 14, 2008); Further Notice Comments of M2Z Networks, Inc. WT Docket Nos. 07-195 and 04-356 (filed Jul. 25, 2008); Further Notice Reply Comments of M2Z Networks, Inc. WT Docket Nos. 07-195 and 04-356 (filed Aug. 11, 2008).

public interest conditions: (i) open access;¹⁵ (ii) open platform;¹⁶ (iii) delivery of a free tier of broadband service;¹⁷ and (iv) rapid build out.¹⁸

Ericsson also claims that two-way service in the AWS-3 band “will create a source of interference to adjacent bands.”¹⁹ This argument lacks any basis in data. In fact, the argument is flatly inconsistent with the data collected and analyzed by the Office of Engineering and Technology in 2008. Last year, at the behest of parties concerned about potential harmful interference, the FCC observed an unprecedented spectrum interference study in the AWS-3 band.²⁰ The study put to rest the claims in the record that the introduction of two-way service in AWS-3 would result in harmful interference to AWS-1. Indeed, the Office of Engineering and Technology concluded that “for the *static case* that is examined AWS-3 devices could operate at a power level of up to 23 dBm/MHz equivalent isotropic radiated power (EIRP) and with out-of-band emissions (OOBE) attenuated by $60 + 10 \cdot \log(P)$ dB without a significant risk of harmful interference.”²¹ In fact, OET’s analysis explains that these restrictive standards can be relaxed in the case of a WiMAX deployment because “a WiMAX signal has less potential for causing interference than a UMTS signal.”²² Ericsson fails to cite or mention this data which completely undermines its interference argument. Instead it regurgitates arguments that were put on the record well before the interference study that it ignores. M2Z encourages the Commission to rely on data it has gathered and analyzed rather than slanted and unsupported *ex parte* filings.

Pursuant to Section 1.1206(b) of the Commission rules, an electronic copy of this letter is being filed. Please let me know if you have any questions regarding this submission.

Sincerely,



Uzoma C. Onyeije

cc: Bruce Gottlieb, Jennifer Schneider, Angela Giancarlo, Renée Crittendon, Erin McGrath, Julius Knapp, Ira Keltz, Geraldine Matise, Ruth Milkman, James Schlichting, John Leibovitz, Joel Taubenblatt, Charles Mathias, Blaise Scinto, Jennifer Tomchin, Kevin Holmes, Paul Malmud, Peter Daronco

¹⁵ See *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band; Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz, and 2175-2180 MHz Bands*, WT Docket Nos. 07-195 & 04-356, Further Notice of Proposed Rulemaking, FCC 08-158, at ¶ 3 and proposed rule 27.16 (c)(1) (rel. Jun. 20, 2008) (“AWS-3 FNPRM”).

¹⁶ *Id.*

¹⁷ AWS-3 FNPRM at ¶ 3 and proposed rule 27.1191.

¹⁸ AWS-3 FNPRM at ¶ 3 and proposed rule 27.14(q).

¹⁹ Ericsson *Ex Parte* at 1.

²⁰ Never before in the history of spectrum regulation had an interference study been ordered by the FCC prior to establishing primary service rules for a spectrum band.

²¹ See *Advanced Wireless Service Interference Test Results and Analysis*, WT Docket. Nos. 07-195 & 04-356, at 3 (rel. Oct. 10, 2008) (emphasis added).

²² *Id.* at 9.

Table A: Allocation Consistency within Region 2¹

Operating Band	Band Name	Total Spectrum	Uplink [MHz]	Downlink [MHz]	Is the band allocation consistent within Region 2?
Band 1	2.1 GHz	120 MHz	1920-1980	2110-270	No
Band 2	1900 MHz	120 MHz	1850-1910	1930-1990	Yes
Band 3	1800 MHz	150 MHz	1710-1785	1805-1880	No
Band 4	1.7/2.1 GHz	90 MHz	1710-1755	2110-2155	No
Band 5	850 MHz	50 MHz	284-849	869-894	No
Band 6	800 MHz	20 MHz	830-840	875-885	No
Band 7	2.6 GHz	140 MHz	2500-2570	2620-2690	No
Band 8	900 MHz	70 MHz	880-915	925-960	No
Band 9	1700 MHz	70 MHz	1749.9-1784.9	1844.9-1879.9	No
Band 10	Ext 1.7/ 2.1 MHz	120 MHz	1710-1770	2110-2170	No
Band 11	1500 MHz lower	50 MHz	1427.9-1452.9	1475.9-1500.9	No
Band 12	Lower 700 MHz	36 MHz	698-716	728-746	No
Band 13	Upper 700 MHz	20 MHz	777-787	746-756	No
Band 14	Upper 700 MHz, pub safety/ private	20 MHz	788-798	758-768	No
Band 17	Lower 700 MHz, AT&T blocks B&C	24 MHz	704-716	734-746	No

¹Region 2 covers the Americas, Greenland and some of the eastern Pacific Islands.

Table B: Global Allocation Consistency

Operating Band	Band Name	Total Spectrum	Uplink [MHz]	Downlink [MHz]	Is the band allocation globally consistent? ²
Band 1	2.1 GHz	120 MHz	1920-1980	2110-270	No
Band 2	1900 MHz	120 MHz	1850-1910	1930-1990	No
Band 3	1800 MHz	150 MHz	1710-1785	1805-1880	No
Band 4	1.7/2.1 GHz	90 MHz	1710-1755	2110-2155	No
Band 5	850 MHz	50 MHz	284-849	869-894	No
Band 6	800 MHz	20 MHz	830-840	875-885	No
Band 7	2.6 GHz	140 MHz	2500-2570	2620-2690	No
Band 8	900 MHz	70 MHz	880-915	925-960	No
Band 9	1700 MHz	70 MHz	1749.9-1784.9	1844.9-1879.9	No
Band 10	Ext 1.7/ 2.1 MHz	120 MHz	1710-1770	2110-2170	No
Band 11	1500 MHz lower	50 MHz	1427.9-1452.9	1475.9-1500.9	No
Band 12	Lower 700 MHz	36 MHz	698-716	728-746	No
Band 13	Upper 700 MHz	20 MHz	777-787	746-756	No
Band 14	Upper 700 MHz, public safety/	20 MHz	788-798	758-768	No
Band 17	Lower 700 MHz, private AT&T blocks B&C	24 MHz	704-716	734-746	No

² For purposes of this table, we have limited the inquiry to each of the regions highlighted in Table 1 of the 3G Americas Paper (a paper in which 3G Americas argues for global harmonization of the AWS-3 band). Namely, (ITU Region 2), Parts of Asia (ITU Region 3) and North America.

Table C: Broadband-Capable Paired and Unpaired Terrestrial Spectrum Below 3GHz Offered at Auction October 22, 2001 – November 20, 2008 (1,2)

Auction	Year	Band Name	Total Spectrum (MHz)	Paired Spectrum (MHz)	Unpaired Spectrum (MHz)	% of Unpaired (MHz)
73	2008	Upper 700 MHz Band (3)	62	56	6	10%
69	2007	1.4 GHz Band (3)	8	6	2	25%
66	2006	AWS-1	90	90	0	0%
65	2006	800 MHz Air-Ground	4	4	0	0%
55	2004	900 MHz	5	5	0	0%
46	2003	1670-1675 MHz Band	5	0	5	100%
45	2002	Cellular RSA	25	25	0	0%
44	2002	Lower 700 MHz Band	18	12	6	33%
Total			217	198	19	9%