January 22, 2010

Via Electronic Filing

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

Re: Ex Parte Presentation in WT Docket Nos. 07-195, 04-356 and GN Docket Nos. 09-51, 09-157

Dear Ms. Dortch:

On January 21, 2010, John Muleta, Milo Medin, Kevin Lo of M2Z Networks and the undersigned met with John Giusti, Chief of Staff for Commissioner Michael J. Copps to discuss the key points of the AWS-3 proceeding's history and noted the importance of adopting a free broadband service to help eliminate cost as a barrier to broadband adoption as well as increased competition.

During the meeting, M2Z highlighted the record from the National Broadband Plan that shows how the lack of affordable broadband has had a negative impact on adoption. Nearly twenty million Americans remain unconnected to broadband citing price as the primary reason. M2Z called on the FCC to use the AWS-3 spectrum to help address this particular problem. M2Z advocated for a public interest obligation to provide a free basic broadband service tier as part of a nationwide AWS-3 build-out.

This proposed public interest obligation would have tangible benefits as shown by previously submitted studies in the record that demonstrate a free basic broadband service could generate $18-25 billion in direct benefits to consumers. Additionally, M2Z also discussed several scenarios that show how the free broadband proposal could constrain the growth of the USF Low Income program should the Low Income program be expanded to cover broadband services. According to M2Z's analysis, based on certain assumptions, the free broadband service proposal could potentially reduce the cost of an expanded Low Income broadband program by at least $1.8 billion annually. The enclosed materials were provided at the meeting and outline the topics of discussion.

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: John Giusti

Innovation. Freedom.

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AWS-3 Can Promote Broadband Adoption and Increase Competition

A Presentation by M2Z Networks Management

January 21, 2010

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Background on M2Z Networks

- **Silicon Valley backed firm seeking to provide nationwide wireless broadband services in the AWS-3 spectrum band.**
- **Diverse company with experienced investors and a management team committed to innovation and consumer empowerment on all fronts.**

Founders and Board committed to innovation, open networks and consumer empowerment

Name	Firm	Select Investments	Other Board Memberships
John Doerr	Partner, Kleiner Perkins Caufield & Byers	Google, amazon.com, InMobi, mobilygen	Google, Amazon, Intuit, Homestore, Sun, Good Technology, Miasole, Purkinje, Spatial Photonics
Bruce Sachs	Partner, Charles River Ventures	BigBand Networks, jitterbug, VANU, Flarion, twitter, iControl	iControl, BigBand Networks, Celerica, Cedar Point Communications, Acopia Networks and Vertex Pharmaceuticals, Inc.
Geoff Yang	Partner, Redpoint Ventures	myspace, Scribd, NETFLIX	Ask Jeeves, Tivo, Azul Systems, BigBand Networks, Calix, Caymas Systems, Efficient Frontier, M2Z Networks, MySpace, JotSpot and Oodle
Milo Medin	Chairman & CTO, M2Z	@Home	
John Muleta	CEO, M2Z		First Avenue Networks, HRSmart, PacketHop, Visto

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Status of AWS-3 Band

- There is potential for a new nationwide wireless broadband network using unpaired spectrum in AWS-3 (2155-2180 MHz)
  - No service rules since the band was reallocated for advanced services in 2003 (6 years)
  - Low market demand since unpaired status makes it difficult for incumbent wireless carriers to use in their networks
  - Service and Auction Rulemaking Pending at the FCC (draft order on circulation for over 1 year)

- **Press Reports as of 12/23/2008 pending AWS-3 Report & Order**

Technology Neutrality

Technical Rules

- ✓ Unpaired Band and No Guard band
- ✓ Single Nationwide License
- ✓ OOBE of 60+10log(P) and AWS-3 Transmit Power of 33 dbm enabling two way broadband services (netting 20 MHz of useable "broadband spectrum")

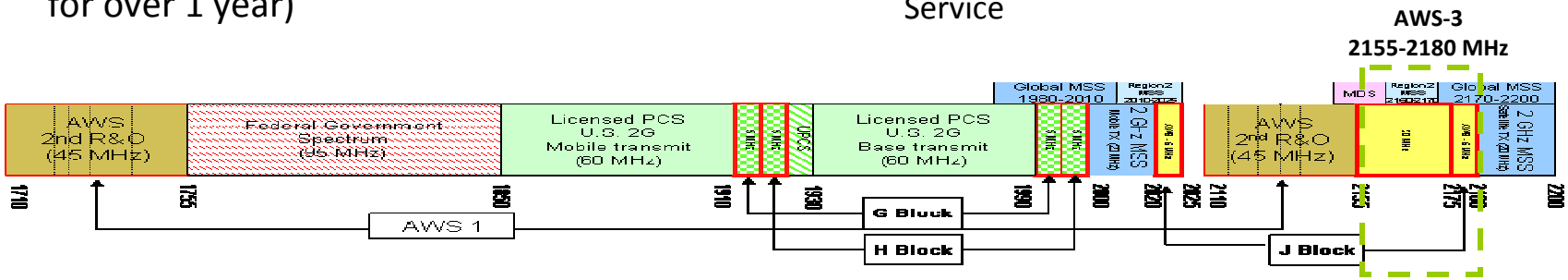
Net Neutrality

Public Interest Obligations

- ✓ Open Access, Open Platform Rules (e.g., 700 MHz "C" Block)
- ✓ No requirement for filtering of porn

Universal Access

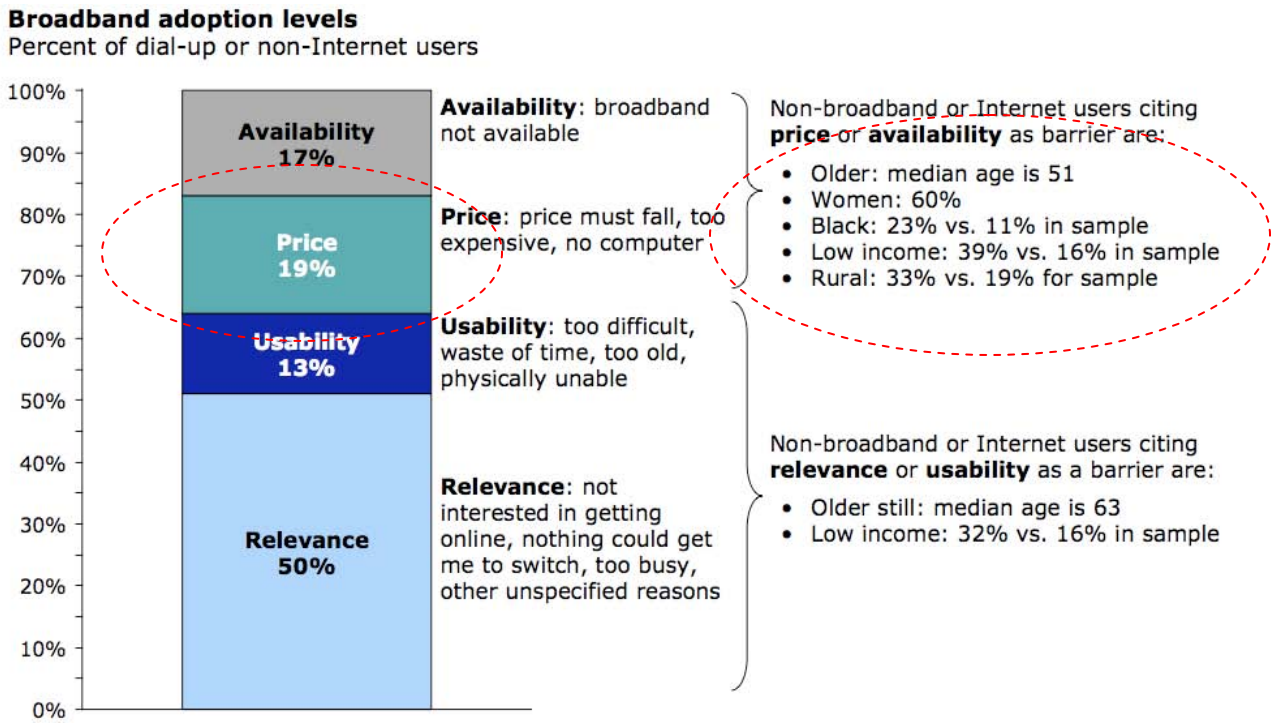
- ✓ Aggressive Build-out of 50% of nationwide POPs in 4 years, 95% in 10 years
- ✓ 768 Kbps Free (no recurring subscription) Service



The BB Adoption Problem

~20M people in the US aren't connected because they can't <u>afford</u> a basic tier broadband service

» From the FCC National Broadband Plan – Sept 2009 Commission Meeting



» Source: Pew Internet and American Life Project, Home Broadband Adoption June 2009

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Impact of the Free Requirement

Based on the AWS3 record, a free service requirement on the AWS3 license would generate over $18B (Net Present Value) in direct consumer benefit

		NPV of Impact	
		Low	High
For Consumers of the Free Service	Direct benefit of broadband connectivity to consumers who aren't connected (Wilkie)	$5B	$12B
Increased Competition from a New Entrant	Impact to all Americans from increased competition (lower prices and higher availability) (Wilkie)	$13B	$13B
	Total Impact (excluding impact on USF)	**$18B** -	**$25B**

Note: Wilkie (2007) and Rosston /Wallsten (2006) papers submitted in WTB 07-195,07-16 and 07-30;

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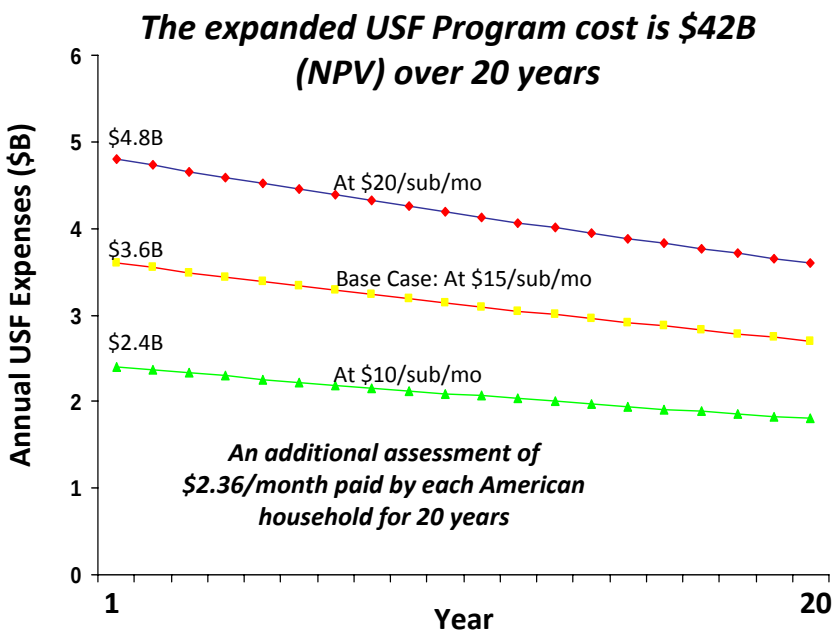
Expanded USF Program for BB Affordability

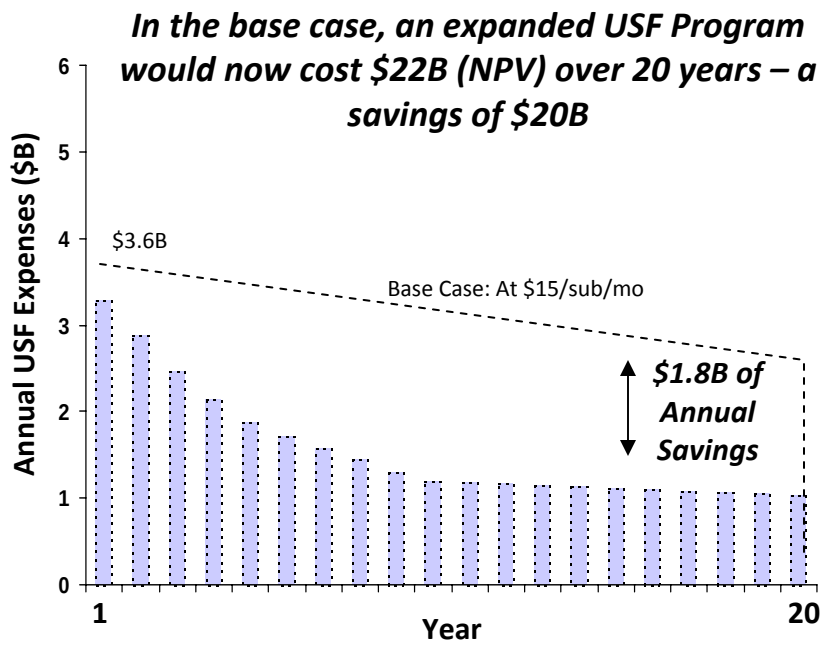
Option 1: Increase USF

An expanded USF Low Income Program to provide broadband service to 20M people would cost $3.6B per year*



Option 2: Adopt an AWS-3 Free Requirement

A free basic tier broadband service would dramatically reduce the costs of the expanded USF Low Income Program



Note: *Base case is $15/sub/mo for basic BB costs; BB costs decline 1.5%/year over 20 years; 20M people in the program and all get service day 1; 65% of the 20M take the AWS3 service, the remaining get USF; AWS3 has a free service requirement and network is built out over 10 years to 95% of pops; OMB 20yr discount rate of 4.4%;
**You can adopt AWS3 free broadband requirement without expanding the USF low cost program

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The pending AWS-3 order promotes the public interest

1. **A free nationwide broadband service eliminates the recurring cost of broadband service as a barrier to broadband adoption and reduces the need to grow USF**
   - According to PEW Research, 37% of the population still does not have broadband primarily due to affordability and the impact is on the poor and on minorities.[7]
   - A July 2009 study by the University of Illinois (Chicago) on citywide technology use within Chicago finds that nearly 40 percent of Chicago residents, especially African-Americans, Latinos and those aged 67 or more, have limited or no access to the Internet; it also finds that both African-Americans and Latinos without Internet access at home are more likely than whites to cite costs as the main reason for not being online, rather than a lack of interest.
2. **Nationwide licensing with aggressive build out creates a new unaffiliated entrant to provide broadband competition.**
3. **An open nationwide broadband network that empowers consumers.**
   - nationwide broadband service facilitates roaming for both consumers and alternative broadband carriers;
   - openness creates a scalable development environment for devices and applications benefiting consumers and entrepreneurs.

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Impractical Pairing Proposal Delays the Benefits of AWS-3

NTIA found that the "1755-1770 MHz band is not viable for use by 3G systems."

Current Uses Are Critical

- According to NTIA, "[s]ome of the DOD mobile systems (e.g., unmanned aerial vehicles, combat identification systems, etc.) operating in the 1755-1850 MHz range have recently been elevated in importance due to the war on terrorism, homeland defense, and possible requirements for ballistic missile defense."
- NTIA emphasizes that systems that enable soldiers "to send and receive voice, video, map overlay information, and operation plan diagrams" and "provide identification of friendly force by individual and automatic weapons users to a range of 1000 meters or more" exist in the 1755- 1770 MHz range.
- According to the DOD, it "anticipates that the 1755-1850 MHz band will experience increased use due to growth in military spectrum requirements to support mobile wireless applications."
- NTIA concludes that for DOD mobile systems "the potential identification of *comparable spectrum* outside this range or in small increments, would require redesign of the equipment."
- NTIA explains that the Navy deploys Precision Guided Munitions within the band and that: "the loss of this 1755-1770 MHz band would severely constrain Navy PGM systems to the point of reducing training effectiveness."

Relocation is unavailable or impractical:

- The NTIA Report explains that "no suitable alternate federal and/or commercial spectrum could be identified for satisfactory relocation of DOD systems.
- NTIA also explains that "the Air Combat Training Systems (ACTS) use two ground-to-air and two air-to-ground frequencies above 1770 MHz. The ground-to-ground component of the system uses fixed links in the 1764-1770 MHz range." NTIA goes on to state that "relocation of these links to higher bands will require a significantly increased infrastructure complexity."
- NTIA states that moving all operations within a smaller set of operating channels increases the likelihood of co-site interference. Inter-system interference reduces the ability of ICIDS to accurately identify friendly soldier, potentially leading to friendly fire casualties. No acceptable alternate bands have been identified for relocation of either Land Warrior or ICIDS."

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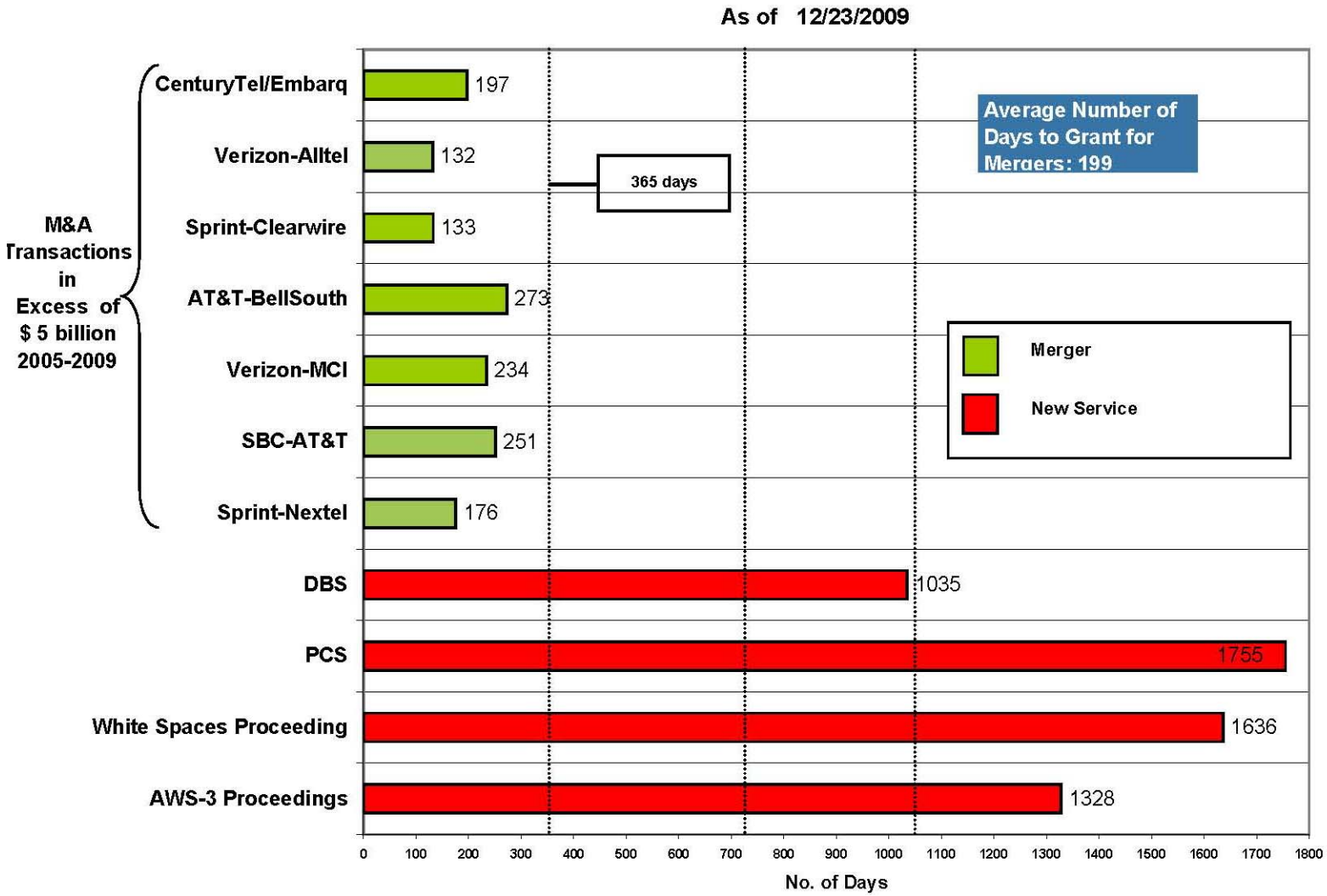
Time is important to Innovation and Competition



* This chart depicts the number of days that these matters were pending prior to being granted.[13]

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