



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 Paul Kolodzy of Kolodzy Consulting, along with the undersigned met with Ruth Milkman, Julius Knapp, John Leibovitz, Blaise Scinto, Margaret Weiner, Peter Daronco, Gary Michaels, Kevin Holmes, Paul Malmud, Brian Wondrack, Martha Stancill and Steve Zak to discuss the status of the pending AWS-3 rulemaking.

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,

A handwritten signature in black ink, appearing to read 'Uzoma C. Onyeije', written over a horizontal line.

Uzoma C. Onyeije

cc: Ruth Milkman, Julius Knapp, John Leibovitz, Blaise Scinto, Margaret Weiner, Peter Daronco, Gary Michaels, Kevin Holmes, Paul Malmud, Brian Wondrack, Martha Stancill, Steve Zak

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# Discussion Materials

January 21, 2010

Presented by M2Z Management



# The BB Adoption Problem

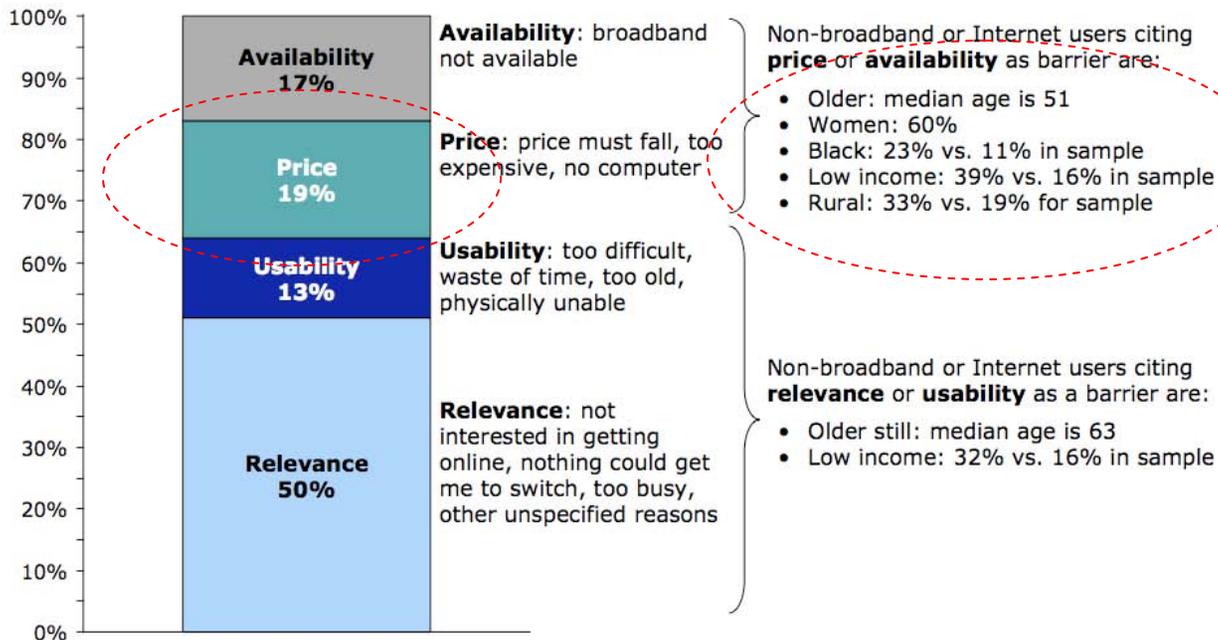
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***~20M people in the US aren't connected because they can't afford a basic tier broadband service***

From the FCC National Broadband Plan – Sept 2009 Commission Meeting

### Broadband adoption levels

Percent of dial-up or non-Internet users



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

***Auctioning AWS-3 with a free service requirement would help solve this problem***

- **The AWS-3 licensee must deliver free broadband data service:**
  - » To a minimum of 20M people in the US
    - With intermediate milestones that are consistent with the overall network build-out requirement
    - Geographically distributed pro-rata, on a state by state level, to the USF low cost program
  - » A basic tier service at 768kbps download speed
    - Consumer Internet broadband service comparable to DSL and cable broadband
  - » Built out to (and thus, available to) 95% of the US population over 10 years with an intermediate milestone of 50% of US pops in 5 years
- **The service would comply with the open access, open device provisions**
  - » This means that any CPE device that is compliant with the network's technical specifications will be able access the free service



# Impact of the Free Requirement

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***Based on the AWS3 record, a free service requirement on the AWS3 license would generate over \$18B in Net Present Value***

		<u>NPV of Impact</u>	
		Low	High
<b>For Consumers of the Free Service</b>	<ul style="list-style-type: none"> <li>• Direct benefit of broadband connectivity to consumers who aren't connected (Wilkie)</li> </ul>	\$5B	\$12B
<b>Increased Competition from a New Entrant</b>	<ul style="list-style-type: none"> <li>• Impact to all Americans from increased competition (lower prices and higher availability) (Wilkie)</li> </ul>	\$13B	\$13B
<b>Total Impact (excluding impact on USF)</b>		<b>\$18B</b>	<b>- \$25B</b>

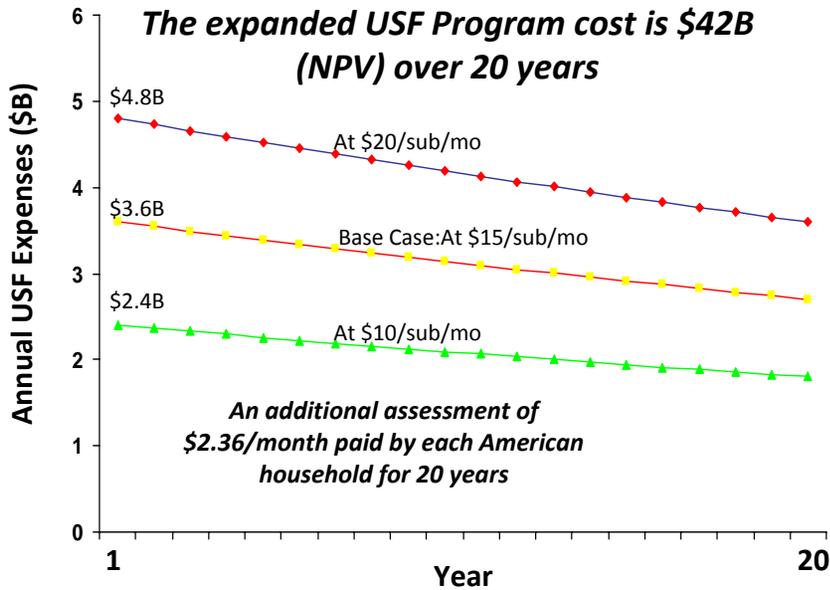
Note: Wilkie (2007) and Rosston /Wallsten (2006) papers submitted in WTB 07-195,07-16 and 07-30;



# Expanded USF Program for BB Affordability

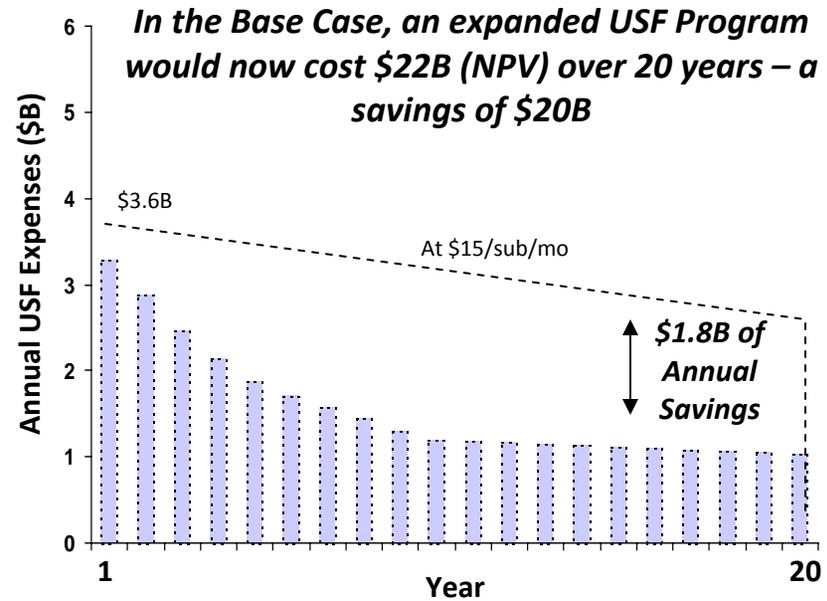
## Option 1: Increase USF

An expanded USF Low Cost 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 Cost 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; 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



## Key FCC Actions Enable Free Broadband

### » AWS-3 Order: (under FCC purview)

- » Free broadband service requirement
  - » Change the 25% spectrum capacity requirement to 20M free subscribers over 10 years, geographically distributed pro-rata on a state by state level to the USF low cost program
- » Nationwide spectrum license with technical flexibility
- » Open Access, Open Devices (700MHz “C” Block)

### » Auction: (under FCC purview)

- » Timing – auction in 2010
- » Minimal reserve price or opening bid to encourage participation
- » Eliminate bidding based on “foreclosure value” (prevent blocking by incumbents)

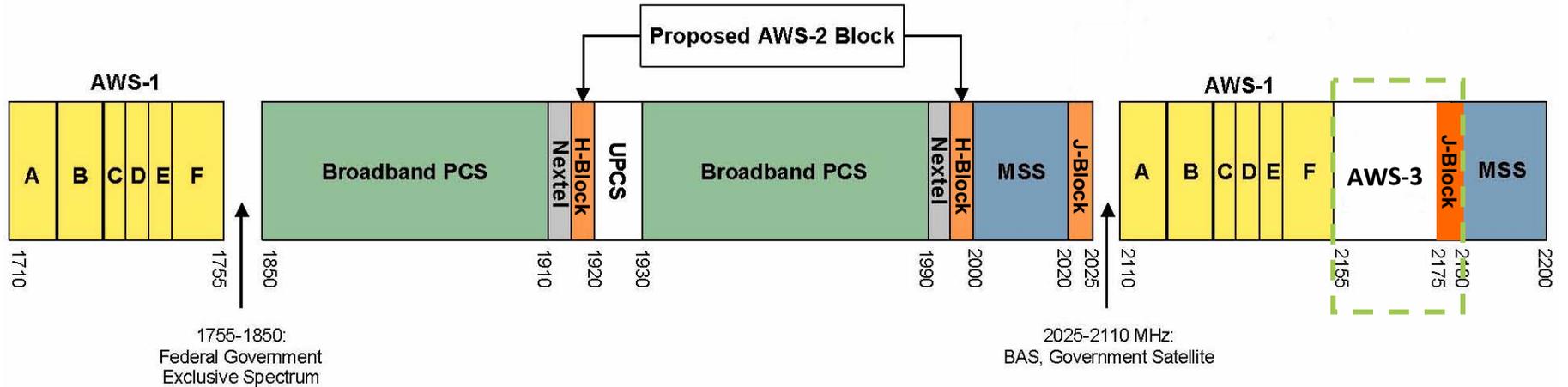
### » Industry Structure:

- » No reduction in wholesale opportunities via M&A activity
- » High speed backhaul availability in sufficient number of towers



# Spectral Efficiency

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		Parameter		Proposal 1		Proposal 2	
		Band	J-Block	AWS-3	J/AWS-3		
		Structure	TDD	TDD	FDD		
		Application	Wireless Mic	Data	Data		
		Total Spectrum	5	25	30		
Downlink Analysis	Guard Band (MHz)	0	4	0			
	Useable Spectrum (MHz)	5	21	25			
	Time Division Duplexing	12%	67%	100%			
	bps/Hz	1.4	2.52	1.4			
	Capacity (Mbps)	0.84	35.5	35.0			
		Total DL Capacity (Mbps)	36.3		35.0		
Uplink Analysis	Guard Band (MHz)	0	4	0			
	Useable Spectrum (MHz)	5	21	5			
	Time Division Duplexing	88%	33%	100%			
	bps/Hz	0.8	1.44	0.8			
	Capacity (Mbps)	3.52	10.0	4.0			
		Total UL Capacity (Mbps)	13.5		4.0		

- FDD Duplexing can use all available Spectrum; however
- TDD Duplexing has greater spectral efficiency that overtakes the losses due to spectral backoffs for OOB restrictions