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April 19,2007

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Federal Communications Commission
Office of the Secretary

ORIGINAL

VIA HAND DELIVERY

Ms. Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
236 Massachusetts Avenue, NE, Suite 110
Washington, DC 20002

Re: M2Z Networks,,Inc.
WT Docket Nos. 07-16 and 07-30
Notification of 'Written *Ex Parte* Presentation

Dear Ms. Dortch:

On April 18,2007, John Muleta of M2Z Networks, Inc. transmitted the enclosed documents to the following persons: Commissioner Michael J. Copps, Commissioner Jonathan S. Adelstein, Commissioner Deborah Taylor Tate, and Commissioner Robert M. McDowell. These materials were sent via electronic mail with the following, or a substantially similar, message from Mr. Muleta:

> I am writing to update you on the status of our license application. As you know, nearly a year ago M2Z submitted a license application when granted would transform the 2155-2175 MHz band from an underutilized and fallow band of spectrum to a service that will deliver portable wireless broadband free of recumng charges to consumers. M2Z will build-out its network aggressively by committing to serve at least 95% of the population within 10 years of the commencement of the service along with additional interim benchmarks as a condition of its license. The license will further be conditioned on M2Z's ongoing pledge to meet several additional public interest commitments including: (i) filtering of obscene and indecent material on the free network; (ii) provision of an interoperable wireless broadband platform free of charge for public safety organizations; and (iii) a five percent revenue-based spectrum usage fee paid to the U.S. Treasury each year.
>
> Two weeks ago, the fonmal pleading cycle on M2Z's pending license application and forbearance petition closed and with over 1,200 filings in two dockets, the record in support of M2Z is quite compelling. I have attached a document that

highlights the salient aspects of the record before the Commission. We have previously provided a more detailed summary of the record to your wireless legal advisor that includes the three attachments referenced in the document.

Pursuant to Section 1.1206(b) of the Commission's rules, two copies of this letter and the enclosed documents are being filed in each **of** the above-referenced proceedings.

Sincerely,

Christopher Tygh

cc: Commissioner Michael J. Copps
Commissioner Jonathan S. Adelstein
Commissioner Deborah Taylor Tate
Commissioner Robert M. McDowell

An Overview of the Record in Response to
M2Z Networks' Liicense Application and Forbearance Petition
April 17, 2007

Summary

A robust public debate has occurred concerning the merits of M2Z's pending license application—there are over 1,200 submissions from hundreds of interested parties in the *two* relevant Wireless Telecommunications Bureau dockets. The hundreds of supportive comments from a diverse set of parties demonstrate the legal, technical, economic and public policy grounds for immediate action here. While a handful of incumbents have expressed unwarranted concern, M2Z has rebutted all of their objections. In contrast, the *vast* majority of the public comment before the Commission in support of the application remains un-rebutted by M2Z's opponents.

Thus, the record strongly endorses M2Z's assertion that its license application and slate of public interest commitments clearly represent the highest and best use of the 2155 to 2175 MHz spectrum band. This is further demonstrated by the fact that no other party was able to show that they have the desire and/or the wherewithal to abide by the service regulations and threshold qualifications that define M2Z's proposed new service. The Commission, therefore, is left with a decision to move forward with M2Z's proposal—and promote the public interest—or to encourage delay and inaction. Given the overwhelming support for action here, M2Z encourages the Commission to take this opportunity to implement the desires of the public.

Background of M2Z Networks' Application

In May 2006, M2Z Networks filed an application with the Commission seeking a 15-year renewable lease of 20 MHz of unpaired spectrum in the 2155-2175 MHz band, which is currently underutilized and undefined. M2Z has committed to use the spectrum, if the license is granted, to build a fast, free, family-friendly broadband network that will reach 95% of Americans within 10 years and provide a new service known as the National Broadband Radio Service ("NBRS"). The application also defines the service rules Ior NBRS to include both public interest and technical obligations that would operaite as conditions to M2Z's license.

Some of M2Z's key obligations are listed below:

PUBLIC INTEREST	TECHNICAL
Provide free service to the public. (See License Conditions at 1Oa)	Follow strict power limits. (See License Conditions at 6)
Provide free service to public safety entities. (See License Conditions at 10b)	Follow strict emission limits. (See License Conditions at 7)
Pay to the U.S. Treasury a voluntary usage fee of 5% of the gross revenues derived from its Premium Services. (See License Conditions at 1Oc)	Relocate fixed microwave service licensees. (See License Conditions at 8a)
Interference Protection for incumbents. (See *License Conditions* at 10d	Relocate fixed BRS licensees. (See License Conditions item 8b)
: indecent content (See License Conditions at 10e)	Protect Part 101 incumbent operations. (See License Conditions at 9)
Abide by CMRS regulations. (See License *Conditions* at 10f)	Protect Part 21 incumbent operations. (See License Conditions at 9)

Regulatory Timeline

Four months after the license application was filed, M2Z filed a Forbearance Petition. The Forbearance Petition noted two key statutory provisions that provide a timeline for Commission action here. Section 7 of the Telecommunications Act requires the Commission to act on M2Z's application by May 5, 2007. Additionally, Section 7 requires that the opponents to M2Z bear the legal burden to prove that M2Z's application is not in the public interest. Under Section 10 of the Act, the FCC must act upon M2Z's Forbearance Petition and the Application underlying it within one year of its filing, or September 2007 (the FCC can extend this period by an additional 90 days). As noted in the Forbearance Petition, the Commission may use Section 10 as a tool to meet the Sectioin 7 mandate.

On January 31, 2007, the FCC issued a Public Notice accepting M2Z's Application for filing and requesting comment on the application. The Public Notice also invited submission of other proposals for use of the 2155-2175 MHz spectrum band. The FCC set the following deadlines: March 16, 2007 for Petitions to Deny, March 26, 2007 for M2Z's Opposition, and April 3, 2007 for Replies to the Opposition.'

[1] A separate pleading cycle was established for comments on the Forbearance Petition (March 19, 2007 for initial comments; April 3, 2007 for replies).

Support for the M2Z Networks Application and Vision

Hundreds of parties have filed supportive comments and other submissions urging the FCC to grant M2Z's Application and to consider M2Z's application in a timely manner. Of the more than 1,200 contributions to the record, the overwhelming majority explicitly support M2Z's application and, based on M2Z's analysis, indicate support from people and organizations that represent over 26 million U.S. consumers. Only a handful of the filings (just over three dozen, in fact) are not supportive.

In addition to numerous bi-partisan members of Congress that have separately submitted letters on this matter in the record, M2Z's supporters include:

- Over one hundred state and local elected and appointed officials (See Attachment A below)

- A wide variety of oraenizations, including:

  - National PTA
  - EDUCAUSE
  - ACORN
  - The Technology Network
  - One Economy
  - Media Access Project
  - Enough Is Enough
  - Minority Media and Telecommunications Council
  - Internet Keep Safe Coalition
  - League for Innovation
  - Global Helping to Advance Women & Children
  - National Association of Telecommunications Officers and Advisers
  - Higher Education Wireless Access Consortium
  - United Families International
  - College Parents of America
  - National Troopers Coalition
  - Public Knowledge
  - Center for Digital Future
  - County Executives of America
  - Family Watch international
  - Electronic Retailing Association
  - California Association for Local Economic Development
  - National Association of State Utility Consumer Advocates
  - Diocese of Arlington

- Several hundred individuals, who have written letters and sent e-mails to the Commission and their Congressional Representatives.

M2Z's supporters noted the public interest benefits of M2Z's proposal, including that it would:

- ✓ Create a competitive broadband marketplace;
- ✓ Bolster the competiitiveness of small and independent businesses;
- ✓ Enhance educational opportunities;
- ✓ Bridge the digital divide;
- ✓ Provide a secondary, interoperable network for public safety communications;
- ✓ Protect children from obscene, indecent and illegal materials online; and
- ✓ Increase diversity in the management and ownership of communications outlets.

Petitions to Deny and Alternative Proposals

Summary Findings

The Petitions to Deny were filed by incumbents to protect their positions in the regulatory process and to maintain their dominance in spectrum holdings. None of the Petitions to Deny offered an alternative proposal to put this underutilized spectrum band to productive use, consistent with the public interest. Instead of providing solutions, the main goal of these pleadings appears to be nothing more than an effort to block a new competitive entrant.

The Alternative Proposals were submitted after M2Z's Application had been pending for ten months. Further validating the overwhelming benefits of M2Z's pending license application, none of the proposals represents a vision of the public interest that even approaches M2Z's commitments. Similarly, none of the proposals demonstrates the capability or the commitment that M2Z has made to build a fast, free and family-friendly network to spread the benefits of this useful spectrum nationwide.

Petitions to Deny and Replies

Thirteen Petitions to Deny M2Z's application were filed with the FCC, most of which were filed by incumbent providers of wireline or wireless broadband services or their trade associations? None of the petitioners met the

[2] The following parties filed petitions to deny or comments opposing the application: Leap Wireless Communications, Inc., EchoStar Satellite LLC. Consumer Electronics Association, CTIA

requirements under Sections 7 and 309(d) to demonstrate why M2Z's Application is not in the public interest. Despite the failure of the parties to meet their burden, M2Z comprehensively responded to the filings in its March 26 Opposition.[3]

The arguments in opposition to M2Z are designed to delay or prevent M2Z's entry into the marketplace and fell into three broad categories:

- Petitioners argued that the FCC lacks statutory authority to assign spectrum other than by auction. M2Z explained that the plain meaning of Section 309(j), as well as FCC precedent, gives the FCC broad authority to use a variety of mechanisms to assign spectrum in the public interest.

- Petitioners argued that the FCC, as a policy matter, should not deviate from the use of auctions to assign spectrum because auctions have been proven to be the superior assignment mechanism. M2Z directed the FCC's attention to the concurrently filed study by Dr. Simon Wilkie, a former Chief Economist of the FCC and current Director of the University of Southern California Center for Communications Law and Policy. Dr. Wilkie's study concludes that auctions do not work in all circumstances and are subject to self-interested, anti-competitive manipulation by incumbents.

- Petitioners argued that the FCC need not act on a proposal to enable free nationwide broadband because broadband adoption is being satisfactorily propagated in the U.S. One petitioner, AT&T, turned the competitive benefit of new entry on its head, and actually argued that a free broadband offering would stifle competition by making it less attractive for others to build broadband systems. M2Z pointed to widely available data identifying continuing gaps in the broadband adoption rate in the U.S., as well as OECD and ITU data concluding that the U.S. lags behind its global partners. M2Z noted that consumers who lack access to affordable broadband service do not have the luxury of waiting until incumbents find it convenient to their business plans to deploy affordable service to all Americans.

Alternative Proposals

- The Wireless Association, Motorola, Inc., T-Mobile USA, Wireless Communications Association International, Inc., Verizon Wireless, AT&T Inc., NextWave Broadband Inc., Rural Broadband Group, Information Technology Industry Council, TowerStream Corp., NetfreeUS, LLC.

[3] An analysis of the issues raised on the record and M2Z's responses is included at Attachment B.

Six Alternative Proposals (APs) were filed? None comes close to meeting the commitments offered in M2Z's application. M2Z's application stands out in thirteen key areas:

Free Service – M2Z has pledged to offer free broadband service to Americans on a nationwide basis.

- ✓ Four APs would not offer free service. (Commnet, NextWave, Open Range, TowerStream)
- ✓ One AP seeks to provide free service. but would rely primarily upon lessees for construction, deployment, and service offerings. (NetfreeUS)
- ✓ One AP provided a "copy-cat" application which proposes free service, but does not offer evidence of business or technical plans to support such service. (McElroy)

Buildout Commitments – M2Z has pledged to build a broadband wireless network to serve 95% of the population within 10 years.

- ✓ Two APs offered no buildout commitment. (NextWave, Open Range)
- ✓ Three APs made commitments with more modest milestones in terms of speed of deployment, total coverage, or both. (NetfreeUS, Commnet, TowerStream)
- ✓ One AP provided a "copy-cat" application which proposes identical buildout, but which, again, does not offer evidence of financial qualifications, business plans, or technical plans to support such a service. (McElroy)

USF – M2Z has pledged not to take any money from the Universal Service Fund (USF).

- ✓ Five APs did not commit to construct and operate a network without relying upon any USF. (NextWave,Commnet, NetfeeUS, McElroy, TowerStream)
- ✓ One AP states that it will deploy without relying on USF, but lacks a sufficient showing of a business plan or finances to support this assertion. This AP also did not commit to paying into the USF to the extent required by the FCC, unlike M2Z. Accordingly, M2Z concludes that this AP will not result in a net USF benefit. (McElroy)

Family-Friendly Service – M2Z has pledged to place a filter on its network to block indecent and obscene material on its free service.

[4] These were filed by the following: Open Range, NextWave. Commnet, NetfreeUS, McElroy. and Towerstream. We note that the Commission returned the McElroy application as defective. **See** McElroy Petition for Reconsideration. WT Docket No. 07-16 at 1 (filed Mar. 30, 2007). These proposals are analyzed against M2Z's application below in Attachment C.

- ✓ Four **APs** did not address this issue, or said explicitly that they would not filter content. (Open Range, NextWave, Commnet, NetfreeUS)
- ✓ One **AP** simply states it will comply with any "current or future federal requirements for the protection of minors" but apparently does not plan to offer filtering. (Commnet)
- ✓ One **AP** proposes optional filtering. (Towerstream)
- ✓ One **AP** made a similar commitment to that of M2Z, but does not explain how it will provide such service. (McElroy)

Public Safety ***Commitments*** – M2Z has pledged to make its network available to public safety at no recurring charge, and on a priority and preemptive basis in emergency situations:

- ✓ One **AP** states that it will make a service available to governmental or public safety entities for free. However, this **AP** is comparatively limited in scale and scope, due to significantly slower rollout proposed by this **AP** and the fact that most of the network needs to be constructed and deployed by unidentified third parties. This **AP** will also offer preemption in emergencies. (NetfreeUS)
- ✓ One **AP** will offer a basic service for free—when and if it can develop compatible handsets. This **AP** made no commitment to priority access or pre-emption. (Commnet)
- ✓ One **AP** proposed a comparable offering to M2Z's—on the surface. In fact, because this **AP** does not make comparable construction commitments, it is not actually similar to M2Z. (McElroy)
- ✓ Two **APs** offered vague statements about priority access for first responders. (Open Range, Towerstream)
- ✓ One **AP** makes no commitment to provide a free, nationwide, and interoperable network for public safety entities. Furthermore, this **AP** would be ill-suited to public safety use because it involves a non-exclusive licensing regime, so there would be no way to prioritize public safety access or to ensure the protection of priority communications from interference. (NextWave)

Spectrum Usage Fee – M2Z has pledged to pay the U.S. Treasury 5% of the revenues from its subscription level service.

- ✓ Two **APs** would not make any payments based on revenues. (McElroy, Towerstream)
- ✓ Two **APs** did not address this issue. (Open Range, NextWave)
- ✓ One **AP** would pay $50 million upon first renewal of license. (Commnet)
- ✓ One **AP** would pay 5% of gross revenues but did not offer a clear business model. (NetfreeUS)

New ***Entrant*** – M2Z is a new entrant to the broadband market and will compete with the current telecommunications and cable duopoly.

- ✓ Five APs are incumbents with substantial wireless holdings. (NextWave, Commnet, NetfreeUS, McElroy, TowerStream)
- ✓ One AP would be a new entrant. (Open Range)

Explicit Un-refuted Economic and Consumer Welfare Benefits – A recent study by former FCC Chief Economist Dr. Simon Wilkie found the consumer benefits of M2Z's pending application ranged from $18 – 25 billion over the 15-year term of the license. Another expert economist, Dr. Kostas Liopiros, estimated even greater lbenefits **to** be realized by the introduction of M2Z's service. Dr. Liopiros concluded that, if M2Z enters the market by 2008, the American public will enjoy aggregate consumer benefits of **$32.4 billion** over the 15-year term.

- ✓ No AP quantified the consumer benefits of their proposals. Just **two** APs even addressed the issue. (Open Range, NetfreeUS)

Interference Protection – M2Z has pledged that its use of the spectrum will not interfere with incumbents' use of their existing spectrum licenses. M2Z has also identified specific rules with which it will comply (Part 27), and has pledged to relocate incumbents per FCC rules.

- ✓ Four APs did not specify technical and service rules. (Open Range, Commnet, McElroy, TowerStream). Of these, one commits to relocate incumbents per FCC rules, but because it doesn't specify how it will protect them until they relocate, this AP has not sufficiently specified interference protection. (Open Range)
- ✓ One AP will operate under **3.65**GHz service rules. (NextWave)
- ✓ One AP will protect incumbents under Parts 22, 27 and 101 rules and will relocate incumbents. (NetfreeUS)

Spectrally Efficient Proposal – M2Z will develop and deploy an innovative beam forming technology to achieve heightened spectral efficiency. M2Z's carefully chosen technologies (TDD, **AAS,** and OFDMA) will enable the company to operate on unpaired spectrum.

- ✓ One AP is not spectrally efficient because it would only cover rural areas. Where there is a potential for a nationwide license to be awarded to an entity that will serve the entire American public, award of that license to an entity that plans to serve a narrow geographic area will only result in underutilization. 'This AP also does not provide sufficiently specific information on technical aspects. (Open Range)
- ✓ One AP proposes that, if it fails **to** construct fully within ten years, rather than losing its license entirely, the band would be disaggregated and recaptured by the FCC. This approach presents too great a risk of fragmentation and further underutilization of the band. This AP also does

not provide sufficiently specific information on technical aspects. (Commnet)

- ✓ One AP will use contention-based technology, which is similar *to* Wi-Fi technology and is currently under development. (NextWave)
- ✓ One AP will use reprogrammed Wi-Fi technology, but it is not clear that such planned reprogramming can be accomplished. (NetfreeUS)
- ✓ Two APs state that they will use TDD, AAS and OFDMA technologies, but there are questions about their ability *to* carry out these plans due *to* a lack of specificity in their applications. (McElroy, Towerstream)

Financial qualifications – **M2Z** has secured considerable funds *to* begin the buildout of its wireless broadband network and has provided the Commission with details under cover 01 confidentiality.

- ✓ One AP concedes that it has not secured funding. (Open Range)
- ✓ Five APs offered little or no detail on funding. To the extent they provided detail, their showings are undermined by further analysis of publicly available information on their financial qualifications. (NextWave, Commnet, NetfreeUS, McElroy, Towerstream)

Regulatory Status/Obligations – M2Z's application indicated that it was prepared *to* commit *to* obligations that support critical public policy priorities at the FCC—the Communications Assistance for Law Enforcement Act ("CALEA"), E-911 obligations, consumer proprietary network information ("CPNI") obligations, and relevant reporting requirements for CMRS licensees. Though the FCC recently changed the regulatory status of wireless broadband, a number of consumer protection and other requirements remain in place. Most APs failed *to* discuss whether or how they will comply with any particular regulatory status, or sought a status that would minimize their regulatory burdens.

- ✓ Three APs did not specify any regulatory status or discuss how they would meet any regulatory obligations. (McElroy, Towerstream, Open Range)
- ✓ One AP seeks *to* be regulated under BRS rules. (Commnet)
- ✓ One AP seeks *to* be regulated under flexible rules that apply in the 3.65 GHz band. (NextWave)
- ✓ One AP requested **to** be regulated in a manner comparable *to* M2Z. (NetfreeUS)

Incumbent Relocation -- M2Z will abide by Part 27 of the FCC's rules and relocate incumbents.

- ✓ One AP also **will** meet the Part 27 standard and relocate incumbents (NetfreeUS)
- ✓ One AP (NextWave) proposes rules from another band that involve technology that is *not* fully developed and not well-suited *to* operations in the band.

- ✓ Four APs do not propose compliance with particular interference or relocation rules and do not provide sufficient data regarding the technical aspects of their plans.

Responses to Forbearance Petition

Six parties filed in opposition to M2Z's forbearance petition.[5] The parties, using the forbearance docket to lodge recycled complaints against M2Z's application, claim that M2Z's use of forbearance is inappropriate or does not meet the test for forbearance. In general, the submissions lack detail. Furthermore, they fall far short of rebutting M2Z's demonstration that the FCC may use Section 10 to forbear from the relevant licensing rules and statutory provisions, because those rules and provisions are: (1) not needed to ensure just and reasonable charges, practices, classifications or regulations; **(2)** not necessary to protect consumers; and (3) doing **so** is consistent with the public interest. M2Z noted that many of the parties opposing M2Z's forbearance petition have sought and received forbearance in instances where the public interest benefit is much less clear.

Conclusions

The Petitions to Deny were filed by incumbents to protect their positions in the regulatory process and **to** maintain their dominance in spectrum ownership. The arguments raised by petitioners demonstrate that their main interest is in blocking new competitive entrants.

The Alternative Proposals, each arrived after M2Z's Application had been pending for ten months. None represents a vision of the public interest even approaching M2Z's commitments, and none demonstrates the capability or the commitment that M2Z has made to building a fast, free and family-friendly network to spread the benefits of this useful spectrum nationwide.

The Commission should grant M2Z's license application either directly or pursuant to its forbearance authority.

[5] These were filed by CTIA, WCA, ATBT. NetfreeUS, LLC. MetroPCS and TowerStream.

ATTACHMENT C
COMPARISON OF M2Z PROPOSAL
WITH ALTERNATIVE PROPOSALS

	M2Z	OPEN RANGE	NEXTWAVE	COMMNET	NETFREEUS	MCELROY	TOWERSTREAM
Licensing Regime	Nationwide exclusive license; single operator	Exclusive license for rural areas	Nationwide non-exclusive licenses, multiple licensees and operators	Nationwide exclusive license; single operator	Will operate a secondary market to re-lease spectrum to operators	Nationwide exclusive license; single operator	Nationwide exclusive license in top 200 MSAs
Free Service	Free consumer broadband service at 384 kbps	No free service	No free service	No free service	Lessees are responsible for delivering free service	"Substantially similar to M2Z"	No free service
Buildout Commitments	95% of US with intermediate milestones, as condition of license	No commitment; estimates coverage of 6.2M 'rural' pops; network forecasted to serve 428,000 subs after 5 years	No buildout commitments	Commits to serve up to 2/3 of U.S. population as license condition; expects to serve 90% within 10 years; slower intermediate milestones	"Substantial service" to 50% of markets in 4 years, 75% in 6 years, and 95% in 10 years; BUT vague and limiting safe harbors	"Substantially similar to M2Z"	50% of MSA population in licensed service area in 5 years, 75% in 10 years, and 90% of RSAs in 10 years
Net Benefit to USF	Will not take from USF and will pay into USF; reduces USF funding requirements	No, partial benefit to USF through free services to K-12 education and medical facilities	Not addressed	Not addressed	Not addressed	No, will not take from USF	Not addressed
Family Friendly	Content filtered in network; safe for children	Not addressed	No	No	No	"Substantially similar to M2Z"	Optional filtering

	M2Z	OPEN RANGE	NEXTWAVE	COMMNET	NETFREEUS	MCELROY	TOWERSTREAM
Public Safety	Free as primary or secondary network, prioritized traffic, pre-emption in emergencies	Only "priority" for first responders in emergencies	None	Basic service will be free for public safety. No prioritization or pre-emption	Yes. No prioritized traffic, but will do pre-emption in emergencies	"Substantially similar to M2Z"	Only "priority" for public safety entities
Spectrum Usage Fee	5% of premium revenues	None	None	$50M upon first renewal of license	5% of gross revenues, no clear business model	Will not make 5% payment	Will not make 5% payment
New Entrant	Yes	Yes	No	No	No	No	No
Economic and Consumer Welfare Benefits	$18B-$25B in consumer benefit over 15-year term of license	Not quantified	Not quantified	Not addressed	Not quantified	Not quantified	Not addressed
Interference Protection and Other Specific Technical Service Rules	Will protect incumbents under Part 27 rules	No specified technical and service rules	Will operate under 3.65 GHz service rules	No specified technical and service rules	Will protect incumbents under Parts 22, 27, and 101 rules	No specified technical and service rules	No specified technical and service rules
Spectrally Efficient Technologies	TDD, AAS, and OFDMA technologies	Not specified	Contention-based technology	OFDMA/WiMax	Reprogrammed Wi-Fi technology (not viable)	TDD, AAS, and OFDMA technologies	TDD and AAS
Financial Qualifications	$400M in secured funding	No secured funding	No details on funding	No details on funding	No details on funding	No details on funding	No details on funding
CMRS Obligations	Regulated as CMRS provider	Not specified	Not specified	No, regulated as DRS provider	Regulated as CMRS provider	Not specified	Not specified

COLOR KEY: = Substantially similar to M2Z Application

= Somewhat similar to M2Z Application

= No showing or substantially different from M2Z Application

U.S House of Representatives
Subcommittee on Telecommunications and the Internet
Hearing on
"Digital Future of the United States: Part 3 –
Spectrum Opportunities and the Future of Wireless"

Written Testimony of John B. Muleta
CEO, M2Z Networks, Inc.

April 19,2007

Background

Mr. Chairman and Members of the Subcommittee, thank you for inviting me to testify today. My name is John Muleta, and I am the co-founder and CEO of M2Z Networks, Inc. My business partner, Milo Medin, and I founded M2Z Networks in 2005 with the support of three prominent venture capital firms that have backed a long list of innovative technology companies of the digital age such as Netscape, Google, Tivo, MySpace and Amazon. Milo previously founded @Home Networks, and was one of the key innovators in the cable broadband industry. It is in large part due to Milo's leadership that the cable broadband industry grew from zero subscribers only a few short years ago to more than 40 million today.

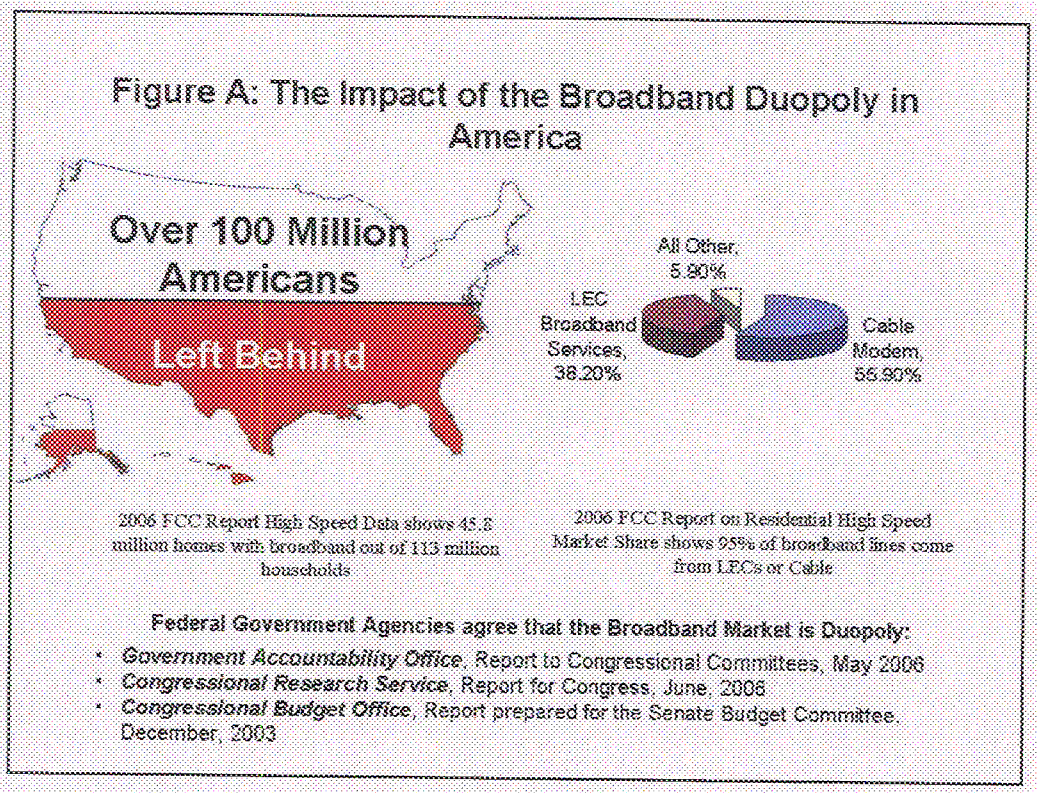
As for myself, I have more than 22 years of experience in the wireless and wireline telecommunications industries. As a businessman and entrepreneur, I

have worked with companies that helped to pioneer the Internet, including GTE and PSINet, Inc. At PSINet, I headed up efforts to build fiber and IP networks in 28 countries, and worked to open up developing markets through competition from IP-enabled services. I also served as the Chief of the Wireless Telecommunications Bureau at the Federal Communications Commission (FCC or Commission) between 2003 and 2005, and was Deputy Bureau Chief and Chief of the Enforcement Division of the FCC's Common Carrier Bureau during the implementation of the 1996 Telecommunications Act.

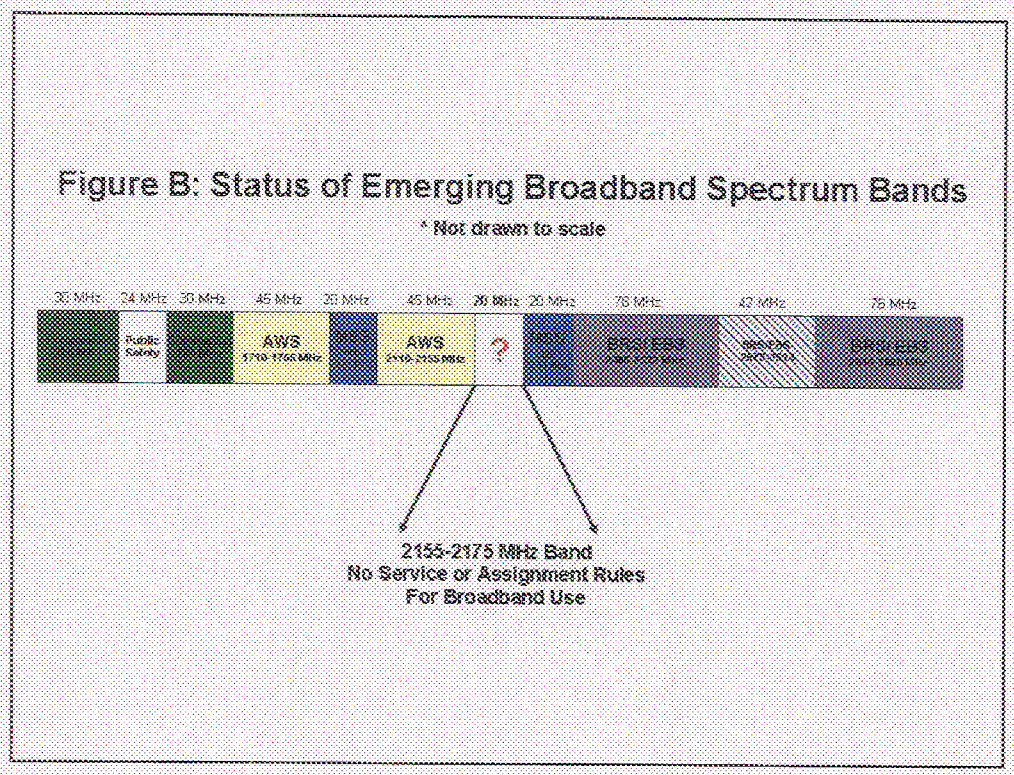
The Subcommittee was kind enough to ask me here to speak about spectrum management and how it affects our country's digital future. Today, spectrum management must place particular focus on the need for additional consumer broadband access across the country because of the educational and economic impact it will have on our country's global competitiveness in the future. Broadband availability for all U.S. citizens has been identified as a top priority by leaders in both parties, including President Bush, Speaker Pelosi, FCC Chairman Martin, and many of the distinguished members of this Subcommittee. I am happy to report that M2Z has identified a path to reach this paramount goal by utilizing 20 MHz of unpaired, historically underutilized, and largely fallow spectrum at 2155-2175 MHz for which it has sought an FCC license.

M2Z's mission is to provide Americans, of all means and all demographics,

the opportunity to access a free, fast, and family friendly nationwide wireless broadband data network. This network will finally bring broadband Internet access to over 100 million adult Americans – in addition to their millions of children who need fast, reliable Internet access to augment their education – who currently have no Internet access or who use outdated dial-up connections. For others, M2Z will provide a welcome choice to the current broadband duopoly.



In order to provide this valuable free service, M2Z has applied to the FCC for a license to construct its network at 2155-2175 MHz as depicted in Figure B below.



This particular block of spectrum is largely unused and underutilized; it is also unpaired and thereby unattractive to incumbent wireless operators who cannot use it in conjunction with their existing mobile voice networks that rely on paired spectrum assignments. Yet, as a technical matter, virtually all experts agree that unpaired spectrum technologies are the most efficient and effective means of transporting wireless broadband data.

M2Z has thus responded to the national imperative for more broadband with a solution that uses spectrum that currently is lying fallow[1] and which is a poor fit

[1] Although there is a long circuitous twelve year path to how this band ended up in its current situation, it is where it is and there is no need to review the sordid history. What is clear is that

for existing mobile technologies. There simply is no public policy reason not to allow M2Z to proceed with deployment of its network. Indeed, the only opposition that M2Z has encountered comes from incumbent operators, their representatives, and other would be competitors that fail to meet or rebut the high public interest standard set by M2Z's free broadband initiative.

Spectrum Management And The Problems of the Digital Age

Today, one of the greatest impediments to the realization of the promise of the digital age is the fact that the broadband market is a duopoly that limits consumer choice and provides little incentive for existing competitors to drive prices down. This should come as a surprise to no one. The Government Accountability Office ("GAO")[2], the Congressional Budget Office (CBO)[3] and the Congressional Research Service ("CRS")[4] have reached the same conclusion. Similarly, FCC reports on the status of broadband Internet access show that incumbent local exchange carriers ("LECs") and cable operators dominate the residential broadband marlket, with LECs serving 38.2% of the market, and cable

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the spectrum band has no service rules in place to define its new use and no geographic blocks for assignment.

[2] Broadband Deployment is Extensive throughout the United States, but It's Difficult to Assess the Extent of Deployment Gaps in Rural Areas, United States Government Accountability Office, GAO-06-426, May 2006

[3] "Does the Residential Broadband Market Need Fixing?" Congressional Budget Office, 2003.

[4] "Access to Broadband Networks," Congressional Research Service Report for Congress, June 28, 2006.

operators serving 55.9% of residential broadband subscribers.' Only 5.9% of all residential broadband subscribers use other technologies.' Finally, and most disappointing, well over half of all U S. adults do not have access at all to broadband at home.'

As these data demonstrate, the broadband Internet access market would benefit greatly from the entry of a new, nationwide, facilities-based competitor,[8] and the most likely source of such facilities-based competition is a wireless

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[5] ***See*** FCC, ***High-speed Services for Internet Access: Status as of December 31.*** 2006, at 3, Table 3. See Chart 4. According to the 2006 Report, of the 50.4 million lines which were faster than 200 kbps in ***both*** directions, 55.9% were cable modem, 36.3% were ADSL, 1.9% were SDSL or traditional wireline, 1.4% were fiber to the end user premises, and 4.5% used other technologies.

[6] Unfortunately, DSL service is proving to be little or no constraint on cable modem prices. Last year, two LECs announced that they would not reduce the price of DSL service to reflect the Commission's elimination of certain USF contribution fees. Instead of passing the savings from these fees on to consumers, BellSouth and Verizon reported that prices would remain the same. ***See, e.g.***, Amy Schatz, ***Verizon and BellSouth DSL Users Won'tSee Lower Bills as Fee Ends,*** WALL STREET JOURNAL, Aug. 22, 2006, at A2. Commission reaction to protect consumers was swift; reports of the Commission's commencement of enforcement proceedings were widespread. ***See, e.g.***, Amy Schatz, ***FCC Questions DSL Customer Fees,*** WALL STREET JOURNAL, Aug. 25, 2006, at A4. Within a few days, the carriers eliminated the fees. ***See Statement of FCC Chairman Kevin Martin on VerizonAnd BellSouth Eliminating Recently Imposed DSL Fees*** (rel. Aug. 30,2006) ("Consumers should receive the benefits of the Commission's action last summer to remove regulations imposed on DSL service.").

[7] There are 45.8 million residential broadband lines in the U.S. ***See*** FCC, ***High-speed Services for Internet Access: Status as of December 31,*** 2006. According to the Census Bureau, there were 113 million households in the United States in 2005. ***See*** U.S. Census Bureau, "Households by Type, 1940 to the Present," May 25,2006 (available at **http://www.census.gov/population/socdemo/hh-fam/hh1**.pdf). The percentage of households with broadband access is therefore approximately 38%.

[8] The principal barriers to widespread broadband use are the retail cost of service and the fact that broadband infrastructure is not universally deployed. Accordingly, the Commission has identified greater broadband access as a strategic goal, stating that "[a]ll Americans should have affordable access to robust and reliable broadband products and services." Federal Communications Commission, Strategic Plan 2006-2011 at 5 (2006).

platform.' But don't look for that competition to come from the large incumbent providers," which have little incentive to deploy a broadband wireless service that will compete with their current offerings." **If** policy makers want robust broadband competition from a wireless provider, they must **turn** their attention to nurturing new entrants that are unaffiliated with existing cable modem, DSL, or incumbent wireless carriers.

M2Z is one such potential new entrant whose proposal, in my opinion, is superior because it **is** complete, transparent and replete with the technical and

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[9] ***See, e.g., Martin Tells Reporters He Sees Progress on Broadband, Video, '911'***, TR DAILY (Mar. 17, 2006) (wireless broadhand will he an "important component" of high-speed service and regulatory relief should he offered to new investors in the broadband marketplace); Remarks of Commissioner Jonathan Adelstein at the Wireless Communications Association Annual Convention (June 27,2006) ("If we are going to see real broadband competition, it probably has to come from wireless.").

[10] Incumbent broadband providers that offer cable modem or DSL service have little incentive to deploy a broadband wireless service that will compete with their own wireline offerings. ***See, e.g.***, Tiernan Ray, ***Comcast Sending Strong Buy-Cell Signals,*** BARRON'S, Aug. 29,2006 (observing that Comcast is not likely to construct a wireless network until such service will complement, rather than compete with, its existing network); Karen Brown, ***BellSouth Expands Broadband Wireless Plans,*** MULTICHANNEL **NEWS,** July 10, 2006 (BellSouth's director **of** product development explains that BellSouth will use its wireless communications service (WCS) spectrum to supplement its wireline network, stating that: "Even in metro areas, we have spaces where we don't have DSL coverage. And then when we get out to rural areas where we have DSL, hut it goes ***so*** far out and the economics don't carry it farther. . . **So** what you are seeing is our plan using wireless broadband to push broadband farther out.").

[11] The Commission recently granted all WCS licensees (in the 2.3 GHz band), including entities such as AT&T, BellSouth, NextWave, and Verizon Wireless, an additional three years until July 2010 to satisfy their applicable construction build out requirements. ***See*** In the Matter of Consolidated Request of the WCS Coalition For Limited Waiver of Construction Deadline for 132 WCS Licenses, Order, 21 FCC Rcd 14134, ¶ 13 (2006). The WCS waiver order limited the breadth of the original request because it lacked certainty and "could act as a disincentive for WCS licensees to expeditiously develop technological solutions for the band and construct systems" and "undermine one of the purposes of the construction requirement to prevent spectrum warehousing."

business foundations to succeed in the marketplace. M2Z was founded to offer an alternative to the broadband duopoly by using spectrum that has been abandoned by the marketplace and which is all but unused. The 2155-2175 MHz band that M2Z seeks access to in order to compete in the marketplace has no identified future use, no specific time or date for assignment, and no incumbent users that have not already been ordered to transition out of the band.[12] M2Z has proposed a solution to use this spectrum and directly address the three most vexing problems in growing the U.S. broadband market: affordability, availability, and accessibility.

As explained in detail in its license Application, filed now almost a year ago on May 5, 2006, M2Z proposes to make available free, broadband Internet access to nearly every consumer, business, non-profit and public safety entity in the United States. To make this service possible, M2Z filed an application for an exclusive, nationwide authorization, with a 15-year license term, to operate in 20

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[12] ***See Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands,*** Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd. 14165, ¶¶ 37-38 (2004) ("*BRS R&O*") (ordering the relocation of users from the 2150-2156 MHz and 2156-2160 MHz bands to 2496-2502 MHz and 2618-2624 MHz respectively); ***Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems,*** Eighth Report and Order, Fifth Notice of Proposed Rulemaking and Order, 20 FCC Rcd. 15866, ¶ 6 (2005) ("*AWS 8th R&O*") (ordering the relocation of users of the Fixed and Mobile Service allocations in the 2155-2160 MHz band and designating the 2155-2175 MHz band for AWS use). *See also* ***Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services. including Third Generation Wireless Systems,*** ET Docket No. 00-258, Ninth Report and Order, FCC 06-45 (rel. Apr. 21, 2006) ("*AWS 9th R&O*") (establishing procedures for relocation of incumbents.

MHz of spectrum.[13] In return, M2Z is willing to assume specific and enforceable public interest obligations, including, among others:

(1) provision of a free wireless broadband service throughout M2Z's national footprint;
(2) rapidly build out its network to 95% of Americans in 10 years, with interim benchmarks of 33% of the population in 3 years and 66% in five years;
(3) finance the build-out without using the Universal Service Funds (USF);
(4) filter pornography and other obscene and indecent material on the free network in order to make broadband access safe for children and their parents;
(5) provide access to an interoperable wireless broadband platform free of charge for public safety organizations; and
(6) voluntarily pay io the U.S. Treasury a five percent spectrum usage fee based on subscription revenue.

One might reasonably ask, then, when **M2Z** will be licensed so it can begin deploying its network? It turns out the answer bas to do with the potential of incumbent licensees and speculators to manipulate the FCC **'s** spectrum assignment process as a way of delaying competitive entry or otherwise thwarting innovation that is in the public interest.

The Fundamental Goal Of Spectrum Management: Serve The Public Interest

Let me now turn to the purpose of spectrum management and the FCC's spectrum assignment process. Congress directed the Commission, quite simply, to

[13] ***See*** Application of M2Z Networks, Inc. for License and Authority to Provide a National Broadband Radio Service in the 2155-2175 MHz Band (filed May 5, 2006) ***("Application")***

put spectrum to its highest and best use ***in the public interest.*** In terms of spectrum assignment, Congress afforded the FCC a number of tools to achieve that end. These tools range from direct assignment using threshold licensee qualifications to spectrum sharing as well as competitive bidding as warranted by the public interest in each particular circumstance.[14]

In empowering the FCC, Congress has also rightly provided the FCC the discretion to select the best method that fits the public interest objective at hand. Thus, contrary to what entrenched players in the industry and their speculative brethren might argue, there is no shorthand process for making assignment decisions; Congress did not direct the Commission to thoughtlessly jump to competitive bidding at every instance.

For example, the FCC's timely decision to accept and seek comment on M2Z's license application has helped develop a record that fully illuminates the public interest considerations relevant to the use and assignment of the 2155-2175 MHz band. That record makes it plain that, first, the band should be allocated for the development of a national broadband radio service, as suggested by M2Z's application, and second, that licensing the spectrum by using threshold qualifications and technical parameters, based on a well established record, would

[14] ***See*** 47 **U.S.C. §§ 301, 303, 308** and **309**

be more effective than resorting to time consuming, counter-productive, and redundant rulemakings.

That is a strong statement, but the record supports it. Nearly 1,000 comments have been filed urging the FCC to grant M2Z's license application.[15] By M2Z's last count, these supportive comments come from people and organizations representing the interests of over 26 million Americans.[16] Moreover, the record contains two authoritative and uncontested economic studies, one submitted by a former FCC' Chief Economist and the other by a respected technical consultant, Dr. Kostas Liopiros that estimate that deployment of M2Z's network will generate up to 32.4 billion dollars in direct consumer welfare benefits."

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[15] The Commission's Strategic Plan notes that "[t]he Commission shall seek to understand consumer demand for broadband and to encourage deployment across multiple platforms to ensure that access is not a barrier to adoption of affordable broadband technologies *as they* ***become*** *mailable."* FCC Strategic Plan at 5 (emphasis added).

[16] ***See*** WT Docket Nos. 07-16 and 07-30 available at http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi.

[17] ***See*** Simon Wilkie, "The Conaumer Welfare Impact of M2Z **Networks** Inc.'s Wireless Broadband Proposal," WT Docket Nos. 07-16 & 07-30 (submitted Mar. 2,2007); Kostas Liopiros, "The Value of Public Interest Commitments and the Cost of Delay to American Consumers," WT Docket Nos. 07-16 & 07-30 (submitted Mar. 19, 2007).