

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

_____)	
In the Matter of)	
)	GN Docket No. 09-157
Fostering Innovation and Investment in the)	
Wireless Communications Market)	GN Docket No. 09-51
)	
A National Broadband Plan For Our Future)	
_____)	

COMMENTS OF METROPCS COMMUNICATIONS, INC.

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SUMMARY

MetroPCS Communications, Inc. (“MetroPCS”) is responding to the *Notice of Inquiry* (“*NOI*”) in which the Commission is seeking comment on the ways to foster innovation and investment in the wireless communications market.

The most important step the Commission must take to foster innovation and investment is to make additional paired broadband spectrum below 2.5 GHz available by auction so that a diverse group of carriers can provide cutting edge services and increased competition. As first steps, the Commission should immediately finalize the allocation and license assignment rules for both the J Block and the H Block from the AWS-2 allocation in a manner which preserves both as 10 MHz paired spectrum blocks and makes them available in manageable geographic license areas (*e.g.*, Cellular Market Areas or CMAs). The Commission also should return the 700 D Block to the pure commercial use for which it was designated by Congress and auction it off in the near term. Ideally, the proceeds from this auction would be earmarked by Congress to fund the construction of a nationwide compatible public safety network on the existing spectrum allocated for public safety uses.

Next, the Commission should conduct a comprehensive spectrum inventory to ascertain whether any previously allocated spectrum that is suitable for broadband use is lying fallow. This inquiry should focus on (1) the Mobile Satellite Service (MSS) spectrum that has been underutilized for more than a decade; (2) the AWS-1 spectrum held by the cable company consortium that is not yet being commercialized; and, (3) any unused spectrum held by the major nationwide wireless incumbents. These inquiries will be most successful if the Commission issues a series of investigatory demand letters to the above-referenced companies that seek

meaningful data regarding the nature and extent of their commercial deployment and customer usage.

The Commission also needs to revamp its spectrum auction rules in order to avoid a replay of the 700 MHz band auction in which nearly \$16 billion of the \$19.6 billion worth of licenses were acquired by the two largest wireless companies: Verizon Wireless and AT&T Wireless. The best hope is for the Commission to adopt a bidding credit program in which the size of the bidding credit increases in inverse proportion to the amount of attributable spectrum that the applicant holds in the auctioned license territory. Specifically, MetroPCS proposes the following sliding discount scale:

<u>Attributable Spectrum</u>	<u>% Discount</u>
0 to 20 MHz	60%
20 to 40 MHz	40%
40 to 60 MHz	20%
Above 60 MHz	0%

A discount program of this nature holds promise of overcoming the inherent advantages held by the large incumbents and creating a prospect of a more diverse and entrepreneurial set of licensees.

MetroPCS also responds, based upon its substantial regulatory experience, to the questions asking what prior policies have spurred innovation and investment, and what policies have failed to do so. Examples of successful policies cited by MetroPCS include (1) the reallocation proceedings that resulted in the PCS, AWS and 700 MHz proceedings; (2) the use of auctions, as compared to hearings or lotteries, to assign licenses; and, (3) the automatic roaming policy. Examples of failed policies include (1) spectrum allocations configured in large

spectrum blocks and areas that unfairly favor large incumbents; (2) the “in market” roaming exception and the absence of a forward-looking data roaming policy; and, (3) proscriptive geography-based build-out requirements. The key, on a going forward basis, is to adopt reasonable licensing policies that protect the legitimate interests of small, rural, mid-tier and mid-sized carriers so they can bring innovative cutting edge services and new investment to the wireless communications market.

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COMMENTS OF METROPCS COMMUNICATIONS, INC.

MetroPCS Communications, Inc. (“MetroPCS”),¹ by its attorneys, hereby respectfully submits its Comments in response to the *Notice of Inquiry* (the “*NOI*”) issued by the Federal Communications Commission (the “Commission”) in the above-captioned proceeding.²

I. INTRODUCTION

MetroPCS commends the Commission for giving priority attention to policies that will foster wireless innovation and investment. The wireless communications market is one of the most robust sectors of the economy, and has continued to exhibit growth despite the economic downturn. However, the wireless communications industry has undergone substantial change in the last several years, and the growth in certain segments of the wireless market may be slowing. As a consequence, this *NOI* is important and timely. MetroPCS agrees with the Commission that enlightened telecommunications policies can play a key role in promoting both investment and

¹ For purposes of these Comments, the term “MetroPCS” refers to MetroPCS Communications, Inc. and all of its FCC-licensed affiliates and subsidiaries.

² *Fostering Innovation and Investment in the Wireless Communications Market; A National Broadband Plan for our Future, Notice of Inquiry*, GN Docket No. 09-157, GN Docket Nos. 09-157 and 09-51, FCC 09-66, rel. Aug. 27, 2009.

innovation in this significant segment of the economy. The keys are to allocate sufficient spectrum, ensure diversity of ownership of wireless licenses, and create a regulatory environment that fosters and incents investment by the private sector and removes unnecessary governmental barriers to innovation and capital formation. The best approach is to encourage vigorous competition. Without competition to spur innovation, the Commission must resort to command and control regulation which has proven to be ill-suited to the rapidly changing marketplace for wireless services.

As the Commission properly recognized when Congress sought to revolutionize the telecommunications market by adopting the pro-competitive provisions of the Telecommunications Act of 1996, “Congress conscientiously did not try to pick winners or losers, or favor one technology over another . . . rather Congress set up a framework from which competition could develop”³ The ultimate objective of the Telecommunications Act of 1996 was to create “independent incentives to deploy new, innovative technologies and alternative infrastructure.”⁴ MetroPCS submits that the Commission should be guided by these same basic principles. However, whenever there is compelling evidence that market forces alone are not fostering a robustly competitive market or that sufficient material inputs (such as spectrum) are not available, the Commission must take targeted steps to address the problem.

Each carrier’s spectrum resources dictate the capacity the carrier will have to offer services and the areas in which it can compete. Thus, spectrum becomes the essential input that drives competition, and any examination of innovation in wireless services must begin with an analysis of the available spectrum resources. At present, the wireless industry reflects a

³ *Telecommunications Act of 1996*, Pub. L. No. 104-104, 110 Stat. 56 (1996).

⁴ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, 16 FCC Rcd 15435 (2001).

significant concentration of spectrum in the hands of the largest carriers. Unless more spectrum is allocated, the Commission should expect the pace of innovation in broadband services to slow. To reverse this trend, the Commission must identify, allocate and license significant amounts of additional paired broadband spectrum in ways that will permit innovation by new entrants as well as by small, rural and regional carriers. As explained in further detail below, MetroPCS believes that the Commission needs to quickly license existing paired spectrum, identify, allocate and license an additional 100 MHz of paired spectrum below 2.5 GHz in the next several years, and adopt auction policies which promote participation of new entrants as well as small, rural and regional carriers. Indeed, CTIA has called on the Commission to allocate an even greater amount of spectrum, requesting “at least 800 MHz of additional spectrum for licensed commercial wireless use within the next six years.”⁵ Without such rules, innovation will be limited to only the largest carriers and the industry will take a step backward to the old cellular duopoly. The Commission also should take steps to ensure that all carriers have access to spectrum and that innovation by third parties is available on a competitive basis to all wireless carriers, not to just the privileged few large incumbent wireless carriers. This will assure that the benefits of wireless competition and innovation inure to the benefit of all consumers nationwide and promote and incent additional private investment in the wireless communications market.

A. The Interest of MetroPCS

MetroPCS has an acute interest in this proceeding and shares the Commission’s vision of the need for broadband services and innovation. MetroPCS is itself a successful wireless innovator. MetroPCS offers terrestrial wireless broadband mobile services (*e.g.*, personal communications services (“PCS”) and advanced wireless services (“AWS”)) in a number of

⁵ *A National Broadband Plan for Our Future*, CTIA – The Wireless Association Written *Ex Parte* Presentation, GN Docket No. 09-51 (Sept. 29, 2009).

major metropolitan areas in the United States. It provides these services on an affordable, flat-rate and unlimited usage basis, with no long-term contract.⁶ MetroPCS was a pioneer in introducing “unlimited” or “all-you-can-eat” wireless services to the marketplace, and now is one of the largest carriers offering unlimited services for a flat rate without a long-term contract. MetroPCS recently has announced its plans to launch 4G Long Term Evolution (LTE) services in the second half of 2010 making MetroPCS a leading innovator in the development of this important next generation technology. This evolution will require substantial investment but will enable MetroPCS to remain in the forefront of wireless technology as data becomes increasingly important. However, as is set forth in greater detail below, MetroPCS is in need of additional spectrum to develop and implement LTE on a seamless, cost-effective basis.

By its own experience, MetroPCS knows that enlightened regulatory policies can be an important catalyst for innovation. Prime examples of forward-thinking regulatory policies of the Commission that have served to foster competition, innovation and investment in the wireless communications market include:

- The spectrum reallocation and spectrum clearing programs that made the PCS and AWS bands available for broadband commercial use;
- The implementation of competitive bidding procedures that served to expedite the process of getting spectrum into the hands of persons who valued it highly;
- The adoption of an automatic roaming policy that promotes nationwide availability of service to customers of rural and regional carriers; and

⁶ MetroPCS owns or has access to licenses in 14 of the top 25 markets in the nation, covering a population of approximately 145 million people. As of June 30, 2009, MetroPCS had approximately 6.3 million subscribers making it the fifth largest facilities-based wireless provider in the United States.

- A regulatory regime which largely allows competition, rather than regulation, to drive innovation .

There are, however, unfortunate examples of situations in which the Commission's regulatory policies have proved to be a deterrent or obstacle to competition, innovation and investment. Prime examples include:

- Spectrum licenses configured to cover very large geographic areas (e.g., Regional Economic Area Groupings or "REAGs") and large spectrum blocks (e.g., 20+ MHz) that are well-suited only to the needs of entrenched nationwide incumbents and poorly suited to small and mid-sized carriers operating in rural, local or regional areas;
- Auction rules which encourage the largest incumbent carriers to acquire the lion's share of available spectrum;
- Overly-broad anti-collusion rules which chill many pro-competitive discussions largely unrelated to the auction for the large period of times such rules apply;
- Potentially-proscriptive, geography-based construction requirements that force carriers to build to arbitrary government standards rather than to market needs and favor incumbents over new entrants;
- Unfunded regulatory mandates and regulatory uncertainty which precludes additional investment;
- Auctions held too closely together which prevents prior winners from developing previously acquired licenses before being required to participate in a subsequent auction;
- Antiquated regulatory policies and directives which spur arbitrage rather than sound long term investment;

- The in-market roaming exception to the automatic roaming rule which discourages new entrants and emerging competitors from acquiring spectrum due to the potential loss of sorely needed roaming rights; and
- Merger rules which have allowed the two largest carriers to take major strides toward recreating the wireless duopoly that existed prior to 1995.

The lesson to be learned from these examples is that innovation is most likely to occur when Commission policies are pro-competitive, market-based and enable a greater number of, rather than fewer, competitors to seek to develop products and services that will ignite consumer interests. This being the case, whenever the Commission adopts new or examines existing regulatory policies or rules governing spectrum allocations and use, it must ask itself whether the proposed rules and policies will unfairly favor large entrenched incumbents that are least in need of government assistance, whether such policies will tend to recreate or prevent a wireless duopoly, and whether the market, rather than the regulator, is in the best position to drive innovation.

B. The Key to Success

One key missing ingredient is necessary for the Commission to succeed in fostering innovation in the wireless market: additional paired spectrum resources below 2.5 GHz available to new entrants and small, rural and regional carriers. Studies show that the demand for wireless data, and the increased bandwidth and speed requirements for some data applications, will result in an exponential growth in traffic and spectrum use.⁷ Even with improved technology that

⁷ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Federal Communications Commission, Thirteenth Report, WT Docket No. 08-27, ¶¶ 205-06 (Jan. 16, 2009) (“*Thirteenth Report*”); see also Carl Weinschenk, “Data Helps Wireless Carriers Work Through the Recession,” *IT Business Edge*, Aug. 21, 2009, available at

dramatically increases capacity within previously allocated bands, the demand for spectrum is projected to far outstrip technological improvements, meaning that identifying and allocating more spectrum must be the Commission's top priority. The simple reality is that wireless companies, particularly those that have been largely shut out in recent auctions, desperately need additional paired broadband spectrum below 2.5 GHz in order to be in a position to introduce new cutting edge services and to compete effectively with the large dominant nationwide carriers, several of which have in excess of 100 MHz in many metropolitan areas across the United States.

1. Lessons to be Learned from the 700 MHz Upper Band Auction

The results of the recent broadband spectrum auctions, particularly the 700 MHz auction, reveal a critical shortage of paired mobile broadband spectrum below 2.5 GHz in manageable geographic areas and spectrum block sizes that is within the reach of small and mid-sized wireless carriers and prospective new entrants. As the Commission knows well, nearly \$16 billion of the \$19.6 billion worth of licenses sold at the 700 MHz auction ended up going to the two largest wireless incumbents: AT&T Wireless and Verizon Wireless.⁸ As is evidenced by the post-auction notice attached hereto as Exhibit 1, of the 214 qualified bidders in the 700 MHz band auction, more than half (113) came away with no winning bids and no licenses won. The list of disappointed bidders included a number of rural and smaller carriers with existing facilities. The list of unsuccessful bidders also included several significant mid-tier carriers

<http://www.itbusinessedge.com/cm/community/features/interviews/blog/data-helps-wireless-carriers-work-through-the-recession/?cs=35136> (last visited Sept. 23, 2009).

⁸ See Written Testimony of Coleman Bazelon, Ph.D., Principal, The Brattle Group, *Hearing on Over of the Federal Communications Commission – the 700 MHz Auction Before the House Comm. on Energy and Commerce, Subcomm. on Telecommunications and the Internet*, 110th Cong. (April 15, 2008), available at

including Alltel Corporation and a Cricket affiliate of Leap Communications. Indeed, one applicant backed by one of the largest and most profitable companies in the world, Google, ended up coming away empty handed. The Commission must be concerned when its auction allocation rules and policies result in outcomes that appear to further entrench the largest carriers in a rapidly consolidating market rather than fostering new entry and enhanced competition from other existing carriers. These skewed auction results coupled with pro-merger policies that have enabled the largest carriers to increase their dominance through acquisitions have put the two largest wireless carriers well on their way to resurrecting the wireless duopoly that existed prior to 1995.

The results of the 700 MHz auction are even more troubling when one analyzes the average price per MHz/POP paid by the smaller and mid-sized carriers for their licenses as compared to the licenses acquired by the largest spectrum winner, Verizon Wireless. Looking at the final numbers, there were staggering differences in prices per MHz/POP for the 700 MHz A and B Blocks – which were configured in smaller market sizes and spectrum blocks – versus the 700 MHz C Block – which was configured in a large (22 MHz) spectrum block (22 MHz) and geographic areas (REAGs). For the C Block, the average price was \$0.76 per MHz/POP.⁹ For the A Block, the average price was \$1.16 per MHz/POP, and for the B Block, the average price was a staggering \$2.68 per MHz/POP.¹⁰ Technically, all of the 700 MHz spectrum was comparable so the differentials in price must be attributed to the manner in which the Commission configured the licenses and structured the auction rules. Configuring the C Block

<http://energycommerce.house.gov/images/stories/Documents/Hearings/PDF/110-ti-hrg.041508.Bazon-testimony.pdf> (last visited Sept. 23, 2009).

⁹ “*It’s Over: 700 MHz Auction Ends After 38 Days, 261 Rounds,*” RCRNews.com, Dan Meyer, March 18, 2008.

¹⁰ *Id.*

as a 22 MHz block licensed on the basis of REAGs and using combinatorial bidding served to dramatically reduce competition in the auction for these licenses and enabled Verizon Wireless to acquire most of the C Block spectrum at a lower price. In contrast, artificial scarcity was created for the smaller geographic licenses with smaller bandwidths, causing their prices to be bid up. This forced many small and mid-tier carriers to drop out of the auction and others to pay higher than expected prices. Further, by allowing combinatorial bidding, the Commission further skewed the auction procedures in a manner that favored large incumbent licensees over new entrants and regional carriers.¹¹ Notably, the fact that the auction was unfairly skewed in favor of the large incumbents was brought to the attention of the Commission beforehand in the comments of many smaller and mid tier carriers, but was ignored. In the specific case of MetroPCS, it entered the auction hoping to acquire more licenses than in fact proved to be cost justified because of the bidding anomalies in the auction. Because of the extent to which MetroPCS and others proved to be unable to acquire the spectrum they need at fair market prices, there remains a substantial unsatisfied demand for paired broadband spectrum below 2.5 GHz in a manageable configuration. And, the lesson to be learned from the 700 MHz auction is that the Commission should avoid spectrum allocations and auction rules that are tailored only to the spectrum needs of the largest and most entrenched incumbent carriers.

Notably, Chairman Genachowski has properly recognized that the “FCC’s decisions on how spectrum is allocated, assigned and licensed . . . will have a profound impact on how the

¹¹ In the months leading up to the 700 MHz auction, many smaller carriers and new entrants pointed out how combinatorial bidding favored larger bidders. Unfortunately, these views became reality as a result of the Commission’s misguided experiment with combinatorial bidding. *See* Comments of MetroPCS Communications, Inc. in WT Docket No. 06-150 filed June 20, 2008 at p. 21.

wireless marketplace develops.”¹² Immediately following the close of Auction No. 73, Commissioner Adelstein released comments indicating that he was appalled by the lack of diversity among winners of the 700 MHz auction, and regretted the fact that the Commission had squandered “an enormous opportunity to open the airwaves to a new generation that reflects the diversity of America, and instead we just made a bad situation even worse.”¹³ Similarly, in this proceeding, Commissioner Copps released a statement expressing the concern that past Commission policies have failed to honor the Commission’s “statutory duty to prevent undue concentration in the wireless marketplace” but rather “opened the floodgates to consolidation.”¹⁴ In order to reverse this trend, the Commission must be vigilant to ensure that its spectrum allocation policies and auction rules provide meaningful opportunities not just for the largest incumbent carriers but also to others that have brought or can bring beneficial competition and innovative ideas to the wireless marketplace.

C. Opportunities for Near Term Action

Happily, the Commission has a number of long-pending proceedings that are long-overdue to be resolved that can serve as an immediate source of the paired broadband spectrum that is critically needed in the marketplace.

¹² Statement of Chairman Julius Genachowski in GN Docket No. 09-157 (FCC 09-66, at p. 26).

¹³ Commissioner Jonathan S. Adelstein Comments on Lack of Diversity Among Winners of the 700 MHz Auction, FCC News Release, March 20, 2008.

¹⁴ Statement of Commissioner Michael J. Copps in GN Docket No. 09-157 (FCC 09-66, at p. 28).

1. The AWS-2 H and J Blocks

For example, the Commission has developed extensive records regarding the allocation of the 10 MHz of paired broadband spectrum known as the AWS H Block,¹⁵ and the 10 MHz of paired spectrum known as the AWS J Block.¹⁶ The Commission should consider these AWS-2 spectrum blocks to be “low-hanging fruit” that can be brought to market quickly. This spectrum is particularly promising for broadband innovation and investment because it is adjacent to existing PCS and AWS allocations. As a result, handsets that already are in the market and in production can already receive signals in these bands.¹⁷ The key is for the Commission to adopt final allocation and licensing rules that will foster diversity in the licensees who are granted these channels. As MetroPCS and many others have advocated in the past, the most important step the Commission can take is to configure the spectrum in smaller geographic license sizes (*e.g.*, CMAs) which are manageable for rural, small and mid-sized carriers. Notably, small license areas of this type can become a building block for carriers who want to aggregate larger market areas.¹⁸ Further, as explained in more detail below, the Commission must adopt auction rules which create opportunities for a more diverse group of auction winners

¹⁵ See *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, et, al*, WT Docket No. 06-150, CC Docket No. 94-102, WT Docket No. 01-309, WT Docket No. 03-264, WT Docket No. 06-169, PS Docket No. 06-229, WT Docket No. 96-86, and WT Docket No. 07-166, Order, FCC 07-132 (rel. Aug. 10, 2007); see *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band*, Notice of Proposed Rulemaking, FCC 07-164, rel. Sept. 19, 2007.

¹⁶ *Id.*

¹⁷ Using the AWS-2 spectrum for broadband use in a paired spectrum configuration also will reduce the prospects of adjacent channel interference.

¹⁸ *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band*, Comments of MetroPCS Communications, Inc., WT Docket No. 07-195 (Dec. 14, 2007). MetroPCS notes that the move towards blind bidding reduces the risk that bidders will adopt a blocking strategy in order to prevent a carrier from assembling a larger geographic area. Blocking strategies are a high risk/low reward proposition when the blocking bidder is unaware of the identity of the high bidder in a particular market.

by adopting a creative system of bidding credits, and avoiding combinatorial bidding.

Otherwise, the dominance of the auction by the largest entrenched carriers that was experienced with Auction 73 will be replicated (or exceeded because there are even fewer potential applicants than when Auction 73 occurred as a result of the accelerating industry consolidation).

2. The 700 MHz D Block

A second immediate opportunity to satisfy the critical need for paired broadband spectrum for commercial wireless uses is the 700 MHz D Block. This block of spectrum already has been allocated by Congress for commercial uses.¹⁹ The prior effort of the Commission to gerrymander the spectrum in a manner that effectively converted it to public safety uses proved to be a fiasco. Unfortunately, this outcome had been predicted by a number of commenters in the 700 MHz allocation proceeding, including MetroPCS.²⁰ Indeed, the failed 700 MHz D Block allocation may have been what Chairman Genachowski had in mind when he indicated that there are notable examples of Commission failures in adopting enlightened regulatory policies, *i.e.*, “band plans and services that failed to attract users, lay fallow or near-fallow for years and needed to be reconsidered after much wasted effort and time.”²¹

Notably, there have been a series of recent filings by public safety entities in which they are moving forward with the development of broadband public safety systems within their

¹⁹ *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Implementing a Nationwide Broadband, Interoperable Public Safety Network in the 700 MHz Band*, Comments of MetroPCS Communications, Inc., WT Docket No. 06-150 and PS Docket No. 06-229 (Nov. 3, 2008) (“*MetroPCS 700 MHz Comments*”). Strong arguments have been made that the efforts of the Commission to convert this block to public safety use through the mandatory public/private partnership violate the statute. *See* Comments of MetroPCS Communications, Inc. in WT Docket No. 06-150 filed June 20, 2008 at pp. 14-16.

²⁰ *Id.* at p. 1-2.

²¹ Statement of Chairman Julius Genachowski in General Docket No. 09-157, FCC 09-66, p. 26.

previously allocated public safety spectrum.²² These submissions confirm what many commercial users have been saying all along: that public safety has enough spectrum. What the public safety community needs is capital to implement advanced systems. This has led MetroPCS and others to recommend that the Commission auction off the 700 MHz D Block in the near term for purely commercial purposes, and that the money raised be devoted to the development and implementation of Public Safety systems within previously allocated public safety spectrum.²³ Rather than repeating the mistake that was made when the 700 MHz D Block was tailored to the business plan of a single potentially interested bidder – Frontline Communications – the Commission should learn from its mistake, return the 700 MHz D Block to the pure commercial use for which it was designated by Congress and proceed promptly to establish spectrum licensing rules that will enable this valuable spectrum to be brought to the market in the near term.²⁴ Indeed, given the favorable propagation characteristics of this band, its complete absence of licensed users (other than wireless microphones) and its proximity to existing CMRS allocations, make this block particularly attractive for smaller, rural and regional carriers. Accordingly, this band should be auctioned immediately for commercial use.

3. Spectrum Inventory

In addition to proceeding to license the available AWS and 700 MHz spectrum, the Commission needs to conduct a comprehensive spectrum inventory to ascertain the extent to

²² *Public Safety and Homeland Security Bureau Seeks Comment on Petitions for Waiver to Deploy 700 MHz Public Safety Broadband Networks*, PS Docket No. 06-229, Public Notice, DA 09-1819 (Pub. Saf. Bur., rel. Aug. 14, 2009).

²³ *MetroPCS 700 MHz Comments* at p. 11-12.

²⁴ The Commission should not be swayed from this course by the efforts of AT&T Wireless and Verizon Wireless to convince the Commission and Congress to reallocate the D Block purely for public safety use. Having gobbled up the lion's share of available spectrum in the 700 MHz auction, AT&T and Verizon will be benefited competitively if other carriers are denied access to the spectrum they need to compete effectively and bring to market advanced services.

which previously allocated spectrum is being warehoused and not being put to beneficial uses or has laid fallow and undeveloped for too long. For example, the efforts of the Commission to allocate spectrum at 2 GHz for use by the Mobile Satellite Service (“MSS”) date back more than a decade.²⁵ Yet, to this day, MetroPCS knows of no substantial commercially viable mobile satellite services being provided to consumers on a regular basis. Instead, MSS licensees appear to be devoting most of their time and attention to developing the Ancillary Terrestrial Component (“ATC”) services. Notably, the MSS allocation in the 2 GHz band is proximate to the AWS band that is being rapidly and successfully commercially deployed by a variety of wireless carriers including MetroPCS, T-Mobile Communications, Leap Wireless and others. Given the paucity of substantial commercially viable MSS services and the rapid market acceptance of AWS services, the Commission should give serious consideration to reallocating the current MSS spectrum to AWS, and relocating the incumbent MSS licensees to elsewhere in the spectrum band.

Similarly, a consortium of cable operators acquired 20 MHz of spectrum on a nearly nationwide basis in the AWS auction.²⁶ At the time of this spectrum acquisition, the cable consortium was identified as a promising new entrant to the wireless arena which could bring increased competition and beneficial services. Unfortunately, as far as MetroPCS knows, commercial development of this spectrum has not commenced in any meaningful fashion. This situation is particularly troublesome since the AWS license is subject to a 15 year term with no interim construction and build-out requirements. All that needs to happen is that the licensee

²⁵ See *In Re Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, ET Docket 95-18, First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 7388 (1997).

show “substantial service” at the end of the 15 year term. This build-out standard made sense when the speed with which the AWS spectrum could be cleared was uncertain and the commercial availability and viability of the AWS equipment was unknown. Now, however, with the successful rollout of AWS systems in many parts of the country, the Commission should consider whether the regulatory policies which allow this 20 MHz of AWS spectrum to be held without development by the cable companies should be revisited.

In addition, as a result of consolidation in the wireless industry, the largest two national carriers have amassed enormous spectrum resources and are moving toward reestablishing the cellular duopoly. Much of this spectrum came from parties these carriers acquired, and much of the acquired spectrum was not fully utilized. An inquiry is particularly justified because many of the mergers were touted on the basis that the merged entities would enjoy economics of scale, including spectrum operating efficiencies. Now that these systems have merged, the amount of spectrum per customer has increased and as a result of consolidation these carriers should have become more efficient. The Commission should request specific information from spectrum rich carriers to determine how much spectrum they have and how much they are actively using.

The unfortunate result of mergers followed by underutilization is that competitive wireless carriers, such as MetroPCS, do not have access to the spectrum they need to deploy cutting edge 4G services. If the Commission is concerned about the barriers to the proliferation of broadband nationwide, it does not need to look much further than its spectrum policies that allow large carriers to obtain and warehouse significant amounts of spectrum. The first thing the Commission needs to do to foster innovation is to allocate and finalize rules for this spectrum so

²⁶ See ULS File No. 0002774487; *see also* Auction of Advanced Wireless Services Licenses Closes; Winning Bidders Announced for Auction No. 66, Report No. AUC-06-66-F (Auction No. 66), DA 06-1882, Sept. 20, 2006.

that carriers such as MetroPCS who have the ability and desire to implement 4G networks can have access to it.

4. Frequency Reallocation

In addition to conducting a comprehensive inventory of the spectrum previously licensed by the FCC, the agency needs to coordinate with NTIA to identify other spectrum below 2.5 GHz suitable for reallocation from government use to commercial uses. Prior reallocations of this nature have proved to be a boon to investment and innovation (*e.g.*, the rapid development of the AWS band). The goal should be to allocate paired spectrum below 2.5 GHz in sufficient numbers of adjacent blocks to allow innovation to occur. This typically would be at least three or four blocks of at least 10 MHz (paired), which would allow sufficient diversity of ownership to drive handset and infrastructure manufacturers to develop the necessary equipment at scale to make it economic. The Commission should learn from its prior successful approach and give high priority to expediting the reallocation of additional spectrum in this manner.

5. Other Inputs Necessary for Innovation

There are other inputs in addition to spectrum that are necessary in order for the Commission to foster innovation and investment. For example, consumers of wireless services have become accustomed to ubiquitous coverage. This means that an enlightened roaming policy that enables a customer of one carrier to roam on the system of a technically compatible carrier in another area is essential in order for innovative localized services to proliferate. Indeed, the Commission has a statutory obligation under Section 1 of the Communications Act of 1934, as amended,²⁷ to foster a “rapid, efficient, *Nation-wide* . . . radio communications

²⁷ 47 USC §151 (emphasis added).

service with adequate facilities at reasonable charges.” The Commission will fail to meet this core objective if it allows incumbent carriers to deny roaming services upon reasonable request.

The roaming issue is particularly important given the projected explosion of wireless data services. Studies clearly show that the wireless industry will evolve to a more data-centric world in the near term.²⁸ Indeed AT&T has noted that it has seen a 5,000x increase in wireless data usage over the last 3 years.²⁹ Due to the increased time spent on-line by communications users and the increasing options for multi-media use, data traffic will increase exponentially in the foreseeable future. For example, there were approximately 13 million wireless data card users in the United States as of Q2 2008.³⁰ However, the use of such data cards is clearly on the rise as 55 percent of those surveyed had purchased their laptop data card within the past 12 months.³¹ Further, in the experience of MetroPCS, certain groups, such as Hispanics and African-Americans, use mobile data considerably more than other users. As a consequence, promoting wireless data will enable more members of these segments of the population to participate in the Internet revolution. Unfortunately, despite the long-pendency of the Commission’s consideration of roaming policies, the Commission has yet to adopt a comprehensive data roaming policy. Failure to address this important topic in the near term will act as a severe deterrent to competition and to innovation in the wireless marketplace and will put at risk the successful implementation of any national broadband policy.

²⁸ *Thirteenth Report* at ¶ 211.

²⁹ “Carriers Needs For More Spectrum Laid Out During Broadband Workshop,” *Communications Daily*, Sept. 18, 2009.

³⁰ *Mobile Data Cards: Not Just for Business Travelers Anymore, Reports Nielsen Mobile*, News Release, Aug. 19, 2009, available at http://en-us.nielsen.com/etc/content/nielsen_dotcom/en_us/home/news/news_releases/2008/august/mobile_data_cards.mbc.12955.RelatedLinks.95224.MediaPath.pdf (last visited Sept. 24, 2009).

³¹ *Id.*

II. UNDERSTANDING WIRELESS INNOVATION AND INVESTMENT

As a prelude to focusing on ways to foster innovation in a number of specific areas of wireless communications, the Commission seeks comment broadly on what industry players view as the most significant obstacles and deterrents to wireless innovation and investment, and what the Commission can do to reduce or eliminate them. *NOI* para. 11. In this section of the comments, MetroPCS identifies several significant obstacles to wireless innovation and investment based upon its experience:

A. Spectrum Constraints

At present, the most significant obstacle to MetroPCS' efforts to expand and improve its provision of advanced services is the lack of sufficient paired spectrum on the horizon in the near term to meet business needs. Even if the Commission accepts the recommendations made by MetroPCS above with regard to the AWS H and J Blocks, and the 700 MHz D Block, the fact remains that the inventory of available spectrum on the horizon is alarmingly small. If we look back in time, the Commission conducted a broadband PCS auction (Auction 58), a lower 700 MHz band auction (Auction 60), the AWS-1 auction (Auction 66), and the 700 MHz band auction (Auction 73) all within a relatively confined time period (2005 to 2008). The bandwidth made available in these auctions was considerable. Auction 58 included 30 MHz, 15 MHz and 10 MHz licenses in a variety of market areas. The lower 700 MHz band auction included 12 MHz of paired spectrum. Auction 66 included three 20 MHz channels and three 10 MHz channels, for a total of 90 MHz. The 700 MHz upper band auction included 62 MHz in total (one 6 MHz, one 10 MHz, two 12 MHz and one 22 MHz channels). To the extent that the wireless industry has enjoyed the development of new services and growth, the credit goes in no small part to the significant amount of spectrum that the Commission made available for commercial uses. The Commission's top priority must be to auction the current paired spectrum

it has available (*e.g.*, AWS-2 H and J Blocks and 700 MHz D Block) and identify and allocate additional spectrum on a going forward basis if it wants the favorable trend to continue.

However, making spectrum available will only satisfy the Commission's desire to foster competition, innovation and investment if the allocations are coupled with enlightened licensing and channel assignment policies. As is discussed in greater detail elsewhere, the Commission can no longer afford auction licensing schemes that favor a few nationwide incumbents bent on recreating the cellular duopoly. Rather, the Commission must adopt policies that encourage broad-based participation and are likely to end up with broadly disseminated licenses.³²

B. Exclusive Handset and Application Deals

Another significant obstacle to wireless investment and innovation has been the proliferation of exclusive handset arrangements under which some of the most advanced and desirable handsets become the exclusive domain of a single carrier. Studies show that customers increasingly are selecting carriers based upon their ability to secure a particular handset (*e.g.*, the iPhone).³³ While there may be limited instances in which an exclusive arrangement is pro-

³² In order to foster maximum participation in auctions the Commission should review the strictures of the anti-collusion rule. As presently construed, the rule is overly broad because it has a chilling effect on a wide variety of non-auction related business transactions during the course of the auction. For example, MetroPCS ended up sitting out Auction 78 even though there were broadband PCS licenses in that auction of interest to the company. This decision was made because MetroPCS wanted to be able to engage in active discussions with certain other carriers with regard roaming arrangements and possible market swaps. MetroPCS was unwilling to put itself in a position where it was subject to the Commission's anti-collusion rule in circumstances where it might want to engage in discussions with others who might end up being competing bidders in Auction No. 78. This discomfort arises from the fact that the Commission has broadly construed auction-related communications to include discussions pertaining to roaming arrangements and market exchanges that could have a theoretical impact on an applicant's bidding strategy.

³³ Indeed, a recent study commissioned by Google Inc. found that more than one in two wireless shoppers said handsets played a major role in their purchase decisions. See "Proof that Handset Brands Help Sell Wireless Plans," RCRnews.com, Oct. 28, 2008.

competitive,³⁴ all too often large carriers are using their purchasing power to corner the market on desirable handsets to the disadvantage of smaller and mid-sized carriers. Exclusive arrangements of this type do not foster the development of innovative devices, rather they deter the dissemination of such devices broadly to consumers.

The Commission has had under consideration for quite some time a petition asking that a rulemaking proceeding be initiated to look into the issue of exclusive handset arrangements.³⁵ There also has been considerable activity on Capitol Hill in which members have expressed concern about exclusive arrangements that have no discernable pro-competitive effect but rather deprive consumers of choice.³⁶ The Commission should initiate the requested proceeding and immediately look into Commission policies that discourage long-term exclusive handset arrangements that have the effect of locking many carriers out of desirable segments of the wireless handset market.

MetroPCS also is concerned that the same anti-competitive pattern will develop with respect to innovative wireless data applications. Every developer is in search of the “killer app” that will take the wireless industry by storm. The same economic considerations that have caused some handset manufacturers to enter into exclusive distribution arrangements which deprive large segments of the wireless user population from access to innovative handsets are at

³⁴ For example, if a carrier makes a significant investment in the development of a particular handset prior to its being available for commercial use, a public benefit might accrue. No such benefit accrues when a carrier uses its purchasing power to exclude access and its competitors to an already developed product.

³⁵ *Petition for Rulemaking Regarding Exclusivity Arrangements Between Commercial Wireless Carriers and Handset Manufacturers*, Rural Cellular Association, RM-11497 (filed May 22, 2008).

³⁶ “Senators to Examine Exclusive Handset Deals,” PC World, Jun. 16, 2009, *available at* http://www.pcworld.com/article/166777/senators_to_examine_exclusive_handset_deals.html (last visited Sept. 23, 2009).

work in the wireless data application market. The FCC proceeding that concerned parties are seeking to look into exclusive handset deals must be broad enough to explore exclusive wireless data application licensing deals as well. It should be a top priority of the Commission to avoid a situation where creative, potentially market-changing wireless data applications end up in the hands of a few large carriers which have become entrenched during the FCC's pro-consolidation era.

C. Build-Out Requirements

Another significant obstacle to investment and innovation is the imposition by the Commission of excessive non-market driven build-out requirements. MetroPCS appreciates and understands the fact that the Commission does not want spectrum to lie fallow and MetroPCS wholeheartedly agrees. MetroPCS does not oppose reasonable build-out requirements that create benchmarks throughout the licensed term to assure that carriers who acquire spectrum at auction are putting it to beneficial use at a consistent pace and moving towards full deployment. Nonetheless, MetroPCS is concerned that the combination of geography-based build-out requirements with extremely large geographic license areas (REAGs) has created a situation in which carriers are forced to build to meet inherently arbitrary Commission coverage standards rather than market needs.

In this regard, the 700 MHz auction represented the worst of both worlds. The Commission imposed stringent geography-based construction standards with reference to the smallest licensed areas (*i.e.*, those most attractive to small and mid-sized carriers) and less stringent population-based criteria for the large market areas (*i.e.*, those most suited to the large

nationwide carriers like Verizon Wireless).³⁷ These disparate construction obligations appear to be precisely backwards.

D. Siting, Pole Attachments, and Backhaul

Concurrently with the release of the *NOI* in this innovation proceeding, the Commission issued a companion *Notice of Inquiry* to take a closer look at competitive market conditions with respect to mobile wireless services.³⁸ This *Competition NOI*, among other things, asked whether non-spectrum inputs – including the market structure for towers, cell sites and backhaul facilities – are affecting the overall state of wireless competition. *Competition NOI* at para. 26.

MetroPCS will not repeat here its detailed analysis of the non-spectrum inputs which it offered in response to the *Competition NOI*. Suffice it to say that there are indeed significant barriers to entry and competition created by the current dynamics of the siting, pole attachment and backhaul markets. The lack of remaining space on many long-established traditional cell sites has forced new entrants to develop alternative sites and alternative system designs (*e.g.*, those using distributed antennae system or DAS nodes) to provide service. A variety of local and state obstacles and delays occur as carriers seek to implement services using these innovative designs.³⁹ There is a pending petition by CTIA that identifies significant delays experienced by wireless carriers in seeking to establish cell sites, and asking the Commission to exercise its

³⁷ The Commission adopted geographic area build-out requirements (35 percent of the area within four years and 70 percent within 10 years) for the Lower 700 MHz A blocks and population based build-out requirements (40 percent within four years and 75 percent within 10 years) for the Upper 700 MHz C blocks.

³⁸ *Implementation of §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*, WT Docket No. 09-66, FCC 09-67, rel. Aug. 27, 2009 (“*Competition NOI*”).

³⁹ Commission policies also play a role in this innovation. The Commission’s now-vacated requirement that all cell sites have eight hours of back up power and its refusal to exempt DAS nodes had a chilling effect on the use of these innovative system designs.

preemptive powers to address these concerns.⁴⁰ Prompt Commission action on the CTIA petition would help address these significant impediments to the provision of innovative services, including the Commission's national broadband plan.

Significant problems also exist in the backhaul market. MetroPCS frequently finds itself in situations where it has few competitive choices when selecting backhaul transmission facilities for its systems. Further, in many instances, the only choices are wired infrastructure and not wireless solutions such as those provided by Fibertower and others. This means that the prices charged and services offered by suppliers are not subject to the same competitive checks as would be the case in a more competitive market. Several wireless carriers have identified the need for reform of the access market in order to address these problems.⁴¹ Interestingly, the competitive concerns are reminiscent of those that led to the breakup of AT&T. Others have identified the need for additional spectrum which is useable for backhaul facilities. In many circumstances MetroPCS is forced to acquire backhaul facilities from companies affiliated with its largest wireless competitors (*e.g.*, AT&T and Verizon). Competitive concerns naturally arise when one competitor controls essential inputs needed by another competitor to provide cost-effective services. Based on these concerns, the Commission should devote prompt attention to ensuring that special access reform occurs on a timely basis.

⁴⁰ *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance*, Petition for Declaratory Ruling of CTIA – The Wireless Association, Jul. 11, 2008.

⁴¹ *See Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25 and RM-10593, Comments of Sprint Nextel Corporation, Aug. 8, 2007; *see also* Comments of T-Mobile, USA, Inc., Aug. 8, 2007.

E. The Burdens of State Regulation

One of the principal drivers of the growth and development of the wireless industry was the adoption by Congress of Section 332 of the Communications Act of 1934, as amended, which, among other things, preempted state and local governments from exercising authority over the entry of, or the rates charged by, any commercial mobile radio service provider.⁴² This enlightened statutory action freed mobile services, which largely are provided without regard to state boundaries, from a patchwork of inconsistent state regulations and subjected them to the Commission's light regulatory touch. There have, however, been recent instances in which the Commission has deferred to states in a manner that adversely affects wireless services. For example, in *North County Communications Corp. v. MetroPCS California, LLC*,⁴³ the Commission deferred to state commissions to determine reasonable compensation for the termination of traffic between wireless carriers and competitive local exchange carriers ("CLECs") notwithstanding the fact that such compensation is governed by an FCC rule (47 C.F.R. §20.11). Interestingly, although the plaintiff and defendant in the FCC complaint proceeding have disagreed on nearly every aspect of the dispute, both have separately petitioned the Commission to overturn the Bureau decision which declined to reach and resolve the rate issue. Failure to grant these applications for review and exercise its jurisdiction will, once again, subject wireless carriers to a host of potentially conflicting state requirements that will have a significant chilling effect on the proliferation of advanced wireless services.

In addition, there currently is a patchwork of conflicting state regulations regarding truth-in-billing requirements. This makes it difficult for a carrier to maintain a uniform, cost-effective billing system and takes critical resources away from providing innovative services because so

⁴² 47 U.S.C. §332(c)(3).

much time and attention is devoted to compliance with a myriad of inconsistent state regulations. States also are increasingly imposing different levels of privacy regulation upon wireless carriers. The Commission, in the cases of both truth-in-billing and privacy, should exercise its Section 332 preemptive authority and create uniform federal regulations for carriers to follow rather than forcing carriers to adhere to conflicting requirements in each state where they operate.

F. Regulatory Delays

The Commission has before it a number of long-pending proceedings that deal with extremely important issues facing the wireless industry. In some instances, these proceedings have languished much too long and the resulting uncertainty has been detrimental to the development of innovative services.

1. Intercarrier Compensation Reform

For example, the Commission has been seeking for nearly a decade to develop a unified intercarrier compensation regime that will eliminate the many opportunities for arbitrage in the current system and level the playing field. It was on April 27, 2001 that the Commission released its initial *Notice of Proposed Rulemaking* in CC Docket No. 01-92 which identified the need for comprehensive intercarrier compensation reform.⁴⁴ On February 10, 2005, the Commission issued a *Further Notice of Proposed Rulemaking* in which it sought to refresh the record and secure comment on certain specific proposals for comprehensive intercarrier compensation reform, alternative reform measures and related issues.⁴⁵ On November 5, 2008,

⁴³ *Memorandum, Opinion and Order*, DA09-719 (Enf. Bur. rel. Mar. 30, 2009).

⁴⁴ *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Notice of Proposed Rulemaking, 16 FCC Rcd 9610 (2001).

⁴⁵ *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Further Notice of Proposed Rulemaking, FCC 05-33, rel. Mar. 3, 2005.

the Commission released yet another *Further Notice of Proposed Rulemaking* in which it again sought comment on a variety of alternative proposals for intercarrier compensation reform.⁴⁶

The failure of the Commission to adopt a unified intercarrier compensation regime has led to significant disruptions in the wireless market. A variety of traffic pumping schemes which seek to exploit anomalies in the current compensation paradigm have been brought to the Commission's attention.⁴⁷ These traffic pumping schemes arise out of situations in which normal competitive behavior and pricing is disrupted when some carriers seek to take advantage of aberrations in the intercarrier compensation regime. The result is traffic pumping disputes that sap the resources of carriers and of the Commission that would be much better devoted to the development and promotion of cutting-edge services.

In addition, wireline service providers enjoy certain economic benefits in the current compensation regime that are denied to wireless carriers. For example, wireline carriers currently are entitled to receive intercarrier access payments from interexchange carriers who use their networks to originate or terminate calls. Wireless carriers, however, are denied the right to receive access payments for similar service they perform on behalf of the interexchange carriers. The unfairness is aggravated by the fact that certain integrated carriers such as Verizon and AT&T are able to receive these benefits since they own the interexchange tandem services which other stand alone wireless companies, such as MetroPCS, do not. This disparity prevents carriers such as MetroPCS from offering innovative services which could be funded by these revenues.

⁴⁶ *Order on Remand and Report and Order and Further Notice of Proposed Rulemaking* in CC Docket No. 01-92 *Developing a Unified Intercarrier Compensation Regime*, 73 Fed. Reg. 66821, rel. Nov. 5, 2008.

⁴⁷ *See, e.g., North County Communications Corp. v. MetroPCS California, LLC*, File No. EB-06-MD-007; *Sprint Communications Company, L.P. v. Superior Telephone Cooperative*, Case No. 4:07-cv-00194-JEG-RAW (S.D. Iowa, filed May 7, 2009); *Establishing Just and Reasonable*

The Commission has never articulated a reasonable policy reason for denying wireless this important payment mechanism. With the payment of access, the wireless carriers could reduce or even eliminate charges for calls which would allow for even greater competition with wireline services.

2. Roaming Reform

Another area of unwelcomed delay has been in the establishment of a comprehensive up-to-date wireless roaming policy. As noted previously, roaming is a critical input for wireless carriers to provide competitive nationwide services. In 1994, after passage of the *Omnibus Budget Reconciliation Act of 1993*,⁴⁸ the Commission undertook a comprehensive review of CMRS-related issues, including roaming. Specifically, the Commission issued a *Notice of Proposed Rulemaking* looking into whether “the obligation to permit roaming should be extended to all CMRS” and inquired as to the regulatory standard necessary to promote roaming.⁴⁹ In 1996, rather than resolving the roaming issue, the Commission issued a *Further Notice of Proposed Rulemaking* (“*FNPRM*”) seeking additional comment and to update the record.⁵⁰ It took the Commission more than a decade following this *FNPRM* to clarify that automatic roaming is a common carrier obligation for Commercial Mobile Radio Service

Rates for Local Exchange Carriers, WC Docket No. 07-135, Declaratory Ruling and Order, DA 07-2863 (Wireline Comp. Bur., rel. June 28, 2007).

⁴⁸ See *Omnibus Budget Reconciliation Act of 1993*, Title VI, §6002(b)(2)(a) and (b), 47 USC §§303(n) and 332.

⁴⁹ See *Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Services*, CC Docket No. 94-54, Notice of Proposed Rulemaking and Notice of Inquiry, 9 FCC Rcd 5408 (1994).

⁵⁰ See *Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, CC Docket No. 94-54, Second Report and Order and Third Notice of Proposed Rulemaking, 11 FCC Rcd 9462 (1996).

carriers.⁵¹ However, in taking this action, the Commission refused to recognize any common carrier right to “in-market” roaming, and failed to address important issues pertaining to data roaming.

Once again, the delay in Commission action on these important topics has had an adverse effect on the wireless market. Allowing large incumbent carriers to deny reasonable requests for roaming services accords them a significant but unfair competitive advantage that is enabling them to further enhance and concentrate their market power. In the meantime, the ability of local and regional carriers to succeed in introducing advanced services is inhibited.

A similar serious problem is looming on the horizon with respect to data roaming. The Commission has adopted a regulatory classification pursuant to which broadband data services offered by wireless carriers are not common carrier services. The Commission has, however, issued an *FNPRM* to consider what if any regulatory requirements should apply to data roaming. In order to fulfill its goals of establishing an effective national broadband plan and promoting innovation, the Commission must act quickly on the data roaming *FNPRM*. Whether or not the Commission classifies high speed wireless data as a common carrier service, it must conclude that customers utilizing these services should be able to roam on to the systems of technically compatible carriers on a non-discriminatory basis and at just and reasonable rates. Otherwise, the Commission runs a two-fold risk. First, the Commission imperils the prospect that wireless data services will be a major component of its national broadband plan. Without roaming, many smaller, rural and regional carriers may be unable or unwilling to invest in broadband. These players are extremely important to the Commission’s efforts since they have many of the

⁵¹ *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, WT Docket No. 05-265, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 15817 (2007).

ingredients necessary for success (e.g., existing customers, existing infrastructure, etc.). Second, as many wireless carriers convert to LTE and other high speed data and migrate to VOIP, the existing regulatory paradigm will no longer apply and the Commission's regulatory structure, which has supported and nurtured innovation in wireless services will largely disappear. The only solution is for the Commission to determine that like voice roaming, data roaming is required to be offered on non-discriminatory and just and reasonable terms. Otherwise, innovation will stop for wireless data once the major players are converted to LTE.

G. Federal Regulatory Burdens on Small Businesses

In recent years, the Commission has adopted a series of unfunded federal regulatory mandates that have proved to place enormous burdens on small carriers and mid-tier carriers such as MetroPCS. Often, these regulations are well intentioned, but the nature and extent of their impact on smaller and mid-tier service providers is underestimated.

Perhaps the best example is the Commission's adoption of battery back-up requirements for wireless providers.⁵² The Commission's rules requiring wireless communication providers to have emergency/back-up power, and to conduct analyses and submit reports on the redundancy and resiliency of their 911 and E-911 networks, were adopted after a series of presentations by industry trade associations and members indicating that the proposed rules were unduly burdensome and incapable of being complied with. The Commission dismissed these concerns and the resulting order set off a series of appeals within the agency, to the Court of Appeals and also to the Office of Management and Budget. Ultimately, the Commission's back-up power

⁵² See *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, EB Docket No. 06-119; WC Docket No. 06-663, Order, 22 FCC Rcd 10541 (2007).

rules were struck down.⁵³ However, the burden upon carriers such as MetroPCS, who were forced to devote attention to considering compliance with the pending rules and to challenging the rules, was substantial. Further, this single requirement almost brought to a standstill the beneficial innovation that is occurring as a result of the use of distributed antenna systems. Although MetroPCS and others sought changes in the back-up power rules to accommodate the special limitations that were presented by DAS sites, the Commission turned a deaf ear towards these pleas. This shows that even a single regulatory requirement can have significant and unintended consequences on innovation.

The lesson to be learned is that the Commission should be particularly sensitive to concerns expressed by carriers, particularly small and mid-sized carriers, and innovators that the costs of regulation outweigh the benefits. Indeed, this will be even more important as the Commission considers how to proceed on a national broadband plan. If carriers are required to devote capital to satisfy non-productive, non-revenue producing regulatory requirements, then the amount of capital available for revenue producing assets will be reduced. This will limit the ability of new entrants and small, rural and regional carriers with limited capital resources to participate in a national broadband plan. Other areas in which MetroPCS is concerned that the appropriate balance has not been struck pertains to E-911 location accuracy and truth-in-billing requirements.⁵⁴ The extent to which regulatory changes in these areas have adverse impacts on carriers is not, in the view of MetroPCS, always given adequate attention. In some instances, MetroPCS believes that competitive market forces are sufficient to encourage carriers to adopt pro-consumer policies, and regulatory intervention is not always required or desirable.

⁵³ *CTIA – The Wireless Association v. FCC*, Order, Case No. 07-1475 (D.C. Cir. Jul. 31, 2009).

H. Internet Policy

Chairman Genachowski recently outlined actions he is recommending the Commission take to “preserve the free and open internet.”⁵⁵ Specifically, the Chairman proposed to add two new “network neutrality” principles to the previous open Internet principles embraced by the Commission. And, the *Notice of Proposed Rulemaking* contemplated by the Chairman to implement these principles (the “*Net Neutrality NPRM*”) will explore the extent to which they will apply to differing platforms, including mobile Internet access services.

MetroPCS intends to reserve judgment on the *Net Neutrality NPRM* pending its consideration and possible release by the full Commission. However, as is discussed below in connection with the Commission’s policies in favor of wireless open access for applications,⁵⁶ MetroPCS is concerned that overly broad net neutrality requirements, particularly as applied to fixed price, all-you-can-eat services, will have serious unintended consequences. Not all wireless network uses are “neutral.” Some consume inordinate amounts of bandwidth and the systems up for inordinate periods of time. Forcing unlimited use carriers to accommodate all such services on an equal basis could be the death knell for the popular low-cost fixed price all-you-can-eat services that MetroPCS and others offer. The Commission should avoid any actions that will force all carriers to adopt an indistinguishable metered use billing plan. The loss of fixed price unlimited use plans would do real harm to many consumers who need, now more than ever, to manage the costs of their wireless services.

⁵⁴ E-911 location accuracy requirements may have a similar chilling effect on DAS system deployment since some of the alternative accuracy standards under consideration may preclude certain configurations of DAAS systems.

⁵⁵ FCC News Release, *FCC Chairman Julius Genachowski Outlines Actions to Preserve the Free and Open Internet*, September 21, 2009.

⁵⁶ See discussion, *infra*, at p. 34.

I. Patent and Intellectual Property Issues

Another major obstacle to wireless innovation and investment arises from the current state of the law governing patents and intellectual property (IP). In the view of MetroPCS, patent and IP lawsuits are out of control. So-called “patent trolls” scour the landscape for potential defendants who can be subjected to costly and time-consuming lawsuits that often get settled at considerable cost, not because of the merits of the claims, but because of the disruptive nature of the litigation process. This is especially true in telecommunications and information services – two areas in which the Commission has attempted to foster innovation. Many members of the high tech industry have pointed out that patent lawsuits often unfairly tie up their scientists and engineers whose time would be better spent inventing innovative products and services rather than responding to lawyer’s inquiries. In addition, the potential for huge awards from patent lawsuits has severely hindered and in some cases shut down promising technology developments and companies.

To some extent, the problems in the patent and IP litigation realm are beyond the jurisdiction and control of the Commission. However, there is one recent trend that should be a matter of major FCC regulatory concern. A series of recent suits involve E-911 patents;⁵⁷ Verizon, T-Mobile, Sprint, MetroPCS and AT&T all have been sued under certain E-911 patents. The law should be interpreted or revised to make clear that, whenever compliance with an order or other directive of the Commission requires that a carrier make use of a patented invention or copyright, that use should be construed under patent law as a permissible use for a governmental purpose.

⁵⁷ See, e.g., *Tendler Cellular of Texas v. AT&T Mobility LLC, et al.*, Case No. 6:09-cv-00115 (E.D. Tex. 2009).

J. Successful Policies

The *NOI* also seeks comment on the elements of the Commission's rules and policies that have been successful in stimulating and promoting innovation and investment. *NOI*, para. 11. MetroPCS already has made note of several successful policies. In particular, the Commission's identification and reallocation of the PCS and AWS spectrum, the use of competitive bidding procedures to assign licenses, the adoption of a regulatory philosophy that prefers minimum technical standards and encourages flexible use, and the removal of federal and state tariffing requirements for retail CMRS services, all have had beneficial effects on the industry. The common principle that underlies these successful policies is that the Commission allowed competition and competitive forces to drive regulatory policies when market forces were working effectively. However, in circumstances where market forces are not working, regulatory intervention is both necessary and appropriate.

One of the more disturbing instances where market forces are not working relates to the largest carriers being able to use their market power to capture innovation in the wireless industry. In the past, since the industry was relatively fragmented, manufacturers had to make innovation widely available in order to have a sufficient market to achieve economics of scale. However, as the industry has consolidated, manufacturers and others who are innovating only need to sell those products and services to the largest carriers, and in many instances the largest carriers may be demanding exclusivity. This has led to a situation made clearly evident in the handset market where the largest carriers are able to obtain exclusive deals that last a number of years to the detriment of consumers. Since in some cases these handsets require other innovation which may be protected by intellectual property rights, these exclusive deals may extend much further than the handset. Another place where the market has failed relates to roaming. Consolidation has allowed the largest carriers to capture geographic coverage and cling to it to

the detriment of the retail wireless industry and consumers. The Commission must act to correct both of these situations.

K. Open Access

Another area where MetroPCS is concerned that changes in regulatory policy could have a severe negative impact on the company is in the area of open network access. As a general matter, MetroPCS does not oppose the concept that consumers should be able to use any technically compatible equipment on the MetroPCS network. This is a logical extension into the wireless arena of the landmark *Carterfone* decision.⁵⁸ However, extending open access requirements to wireless *applications*, as is proposed by Skype and others,⁵⁹ goes far beyond the legal principles in the *Carterfone* case, particularly in the case of fixed price, all-you-can-eat service providers.

The Commission specifically seeks in the *NOI* comment on how wireless services are being used in innovative ways to solve problems and provide consumer benefit in both the public and private sectors. *NOI*, para. 15. As the MetroPCS business model demonstrates, innovation can be in the form of innovative pricing. MetroPCS' fixed-price all-you-can-eat wireless services are particularly attractive to young people, persons on a fixed income, the unbanked, credit-challenged consumers and others who are feeling the impact of the current economic downturn. Fixed price wireless services also help promote wireless service as a wireline replacement, thus creating intermodal competition. MetroPCS is extremely concerned, however, that a federal regulatory mandate requiring MetroPCS to accommodate every wireless

⁵⁸ *Use of the Carterfone Device in Message Toll Telephone Service; Thomas F. Carter and Carter Electronics Corp. v. American Telephone and Telegraph Co., et al.*, 13 F.C.C.2d 420 (1968).

⁵⁹ *Petition to Confirm a Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, Skype Communications S.A.R.L., RM-11361 (Feb. 20, 2007).

application that is technically capable of running on the MetroPCS system would threaten the fixed price, all-you-can-eat wireless service offering that is at the core of the MetroPCS business model. Some applications – for example Slingbox and other full motion video applications – are spectrum hogs. The ability of MetroPCS to maintain reasonably-priced unlimited services is jeopardized if it must accommodate applications of this nature that disproportionately gobble up air time. It would represent a major regulatory failure if the Commission adopted open access requirements with regard to applications that ended up being the death knell of fixed-price wireless plans. Recent studies show that prepaid wireless and unlimited all-you-can-eat pricing plans will be the primary source of wireless growth and increased penetration on a going forward basis.⁶⁰ This trend is evidenced by the recent moves by all of the major nationwide incumbents to adopt certain fixed price plans and/or to acquire prepaid or unlimited service providers.⁶¹ Given these trends, any regulatory policy that forces carriers to abandon fixed price schemes in favor of usage sensitive pricing would be counterproductive.

Further, open access for applications will consume considerable spectrum resources. Open access for applications would have a disproportionate effect on carriers, such as MetroPCS, who have limited spectrum. Carriers with less than 40 MHz in a market do not have the resources to offer data services with open access for all data applications since they have limited capacity. Open access will limit competition by these smaller carriers because they

⁶⁰ *Thirteenth Report* at ¶ 211 (noting that “one of the primary factors explaining the duration of time spent browsing on the mobile Web is the relative popularity of flat-rate unlimited data plans in the United States, where an estimated 10.9 percent of users have an unlimited data plan”).

⁶¹ See *Sprint Nextel To Acquire Virgin Mobile USA*, Press Release, Jul. 28, 2009, available at http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1312854 (last visited Sept. 23, 2009); see also Elizabeth Woyke, “Sprint’s Boost Mobile Grows Up,” *Forbes*, May 6, 2009, available at <http://www.forbes.com/2009/05/06/sprint-boost-mobile-technology-wireless-sprint.html> (last visited Sept. 23, 2009).

either will have to raise their prices, abandon popular unlimited use plans or have fewer customers and not achieve economics of scale. Open access is therefore the antithesis of competition.

III. CURRENT SPECTRUM MANAGEMENT POLICIES

MetroPCS discusses above some of the specific Commission rules and regulations which have served to promote or hinder innovation and investment. In this section, MetroPCS addresses the general regulatory philosophies that should be favored and disfavored by the Commission in its effort to encourage the development and proliferation of beneficial advanced wireless services.

A. Misguided Policies

It is interesting to watch the regulatory pendulum swing from one extreme to another with regard to wireless regulation. In some instances, lessons that were learned in the past seem to have been forgotten, and need to be learned again.

1. Command and Control Decisionmaking

In recent years, the Commission on certain occasions has abandoned the concept of allocating spectrum with minimal regulatory requirements and allowing marketplace forces to ascertain the highest and best uses – with disastrous results. In doing so, the Commission has fallen into the trap of believing that it can successfully micromanage the use of the spectrum in order to foster what it views as a potentially beneficial outcome. The failed 700 MHz D Block public/private partnership provides a prime example. The Commission became enamored by the business plan of a single prospective applicant – Frontline Communications – and custom tailored the D Block allocation to meet that business plan. This approach flew in the face of the agency’s relatively recent claim that it was devoted to a “shift away from a command-and-

control regime towards a flexible scheme” when establishing allocation policies.⁶² Nonetheless, the D Block allocation represented a textbook example of a “designer allocation” specifically tailored to the proposal of a single party with a unique business plan. Unfortunately, MetroPCS’ concern over this designer 700 MHz D Block allocation is not merely a matter of historical interest. Public safety entities once again are gearing up to push the Commission to adopt a public/private partnership option which will again necessitate a government effort to micro-manage business relationships and spectrum usage.⁶³

And, this is not the only example of ill-conceived command-and-control policies. Late last year, the Commission came dangerously close to adopting an AWS-3 allocation plan which exactly matched the business plan of proponent M2Z. Negative comments in the AWS-3 proceeding regarding the viability of the M2Z approach, and the risks associated with accommodating the interests of a single industry participant, were eerily reminiscent of comments made with regard to the Frontline public safety proposal which generated the unsuccessful 700 MHz D Block allocation. MetroPCS notes that M2Z is, once again, doing its rounds at the Commission in a continuing effort to put its name and mark on this chunk of AWS-3 spectrum.⁶⁴ In the process, if M2Z gets its way, the Commission will have destroyed the 10 MHz paired AWS-J Block allocation by borrowing 5 MHz from the J Block adding it to the AWS-3 allocation, and effectively stranding the remaining 5 MHz in a fashion that will prevent

⁶² See *Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands*, WT Docket No. 02-146, Memorandum Opinion and Order, 20 FCC Rcd 4889 (2005).

⁶³ See *Letter from Brian Fontes to Chairman Julius Genachowski*, WT Docket No. 06-150 and PS Docket No. 06-229, Aug. 12, 2009.

⁶⁴ See *Notification of Oral Ex Parte Presentation*, M2Z Networks, Inc., WT Docket Nos. 07-195 and 04-356, Aug. 6, 2009; see also *Notification of Oral Ex Parte Presentation*, M2Z Networks, Inc., WT Docket Nos. 07-195 and 04-356, Aug. 19, 2009.

it from being put to beneficial use. Further, since M2Z's plan includes free Internet, the Government, rather than marketplace, will be setting the terms of competition.

Rather than repeating the mistakes of the past, the Commission should learn from its prior experiences. As was recognized in Working Paper No. 38 of the FCC's Office of Plans and Policy issued in November of 2002 "it is important that the Commission move from its traditional spectrum management paradigm of 'command-and-control' to a paradigm of market-oriented allocation policy to provide more flexible allocations that allow multiple uses so that spectrum can be put to its highest and best use."⁶⁵ This goal will not be achieved if the Commission continues to accommodate individual parties with designer allocations.

2. Regulation by Ad Hoc Adjudication

Another misguided regulatory approach that MetroPCS believes should be changed is the recent tendency to make major industry-affecting policy decisions within the context of *ad hoc* adjudicatory proceedings rather than in rulemaking proceedings. Perhaps the best example is the seemingly ever shifting spectrum screen that is used by the Commission in evaluating assignment and transfer applications. The spectrum screen represents the aggregate amount of spectrum held by two applicants in a common market area upon consolidation that will trigger increased scrutiny of the merger transaction on competitive grounds. The Commission has modified the screens substantially over a relatively short period of time. First, the screen was moved from 70 MHz⁶⁶ to 95 MHz.⁶⁷ Then, the Commission adopted a screen which varied from

⁶⁵ *A Proposal for a Rapid Transition to Market Allocation of Spectrum* (OPP Working Paper No. 38) Released November 1, 2002 (<http://www.fcc.gov/opp/workingp.html>)

⁶⁶ *Applications of Western Wireless Corporation and ALLTEL Corporation; For Consent to Transfer Control of Licenses and Authorizations*, WT Docket No. 05-50, Memorandum Opinion and Order, 20 FCC Rcd 13053 (2005).

⁶⁷ *Applications of AT&T Inc. and Dobson Communications Corporation*, WT Docket No. 07-153, Memorandum Opinion and Order, 22 FCC Rcd 20295 (2007).

95 MHz to 115 MHz to 125 MHz and to 145 MHz depending upon what combination of cellular, PCS, SMR, 700 MHz, BRS and AWS spectrum is available for assignment and use in each particular market.⁶⁸ The problem with this shifting screen is that all of the changes have been announced in the context of *ad hoc* adjudicatory proceedings arising out of contested assignment or transfer applications. This creates the undesirable situation in which full industry comment is not taken into consideration. Enlightened regulatory policies are most likely to emerge when proposed rules are published and comments are received *before* rules are adopted as contemplated by the Administrative Procedures Act. Thus, the better approach is to adopt standards of general applicability in rulemaking proceedings rather than in *ad hoc* adjudicatory proceedings where only persons seeking to contest a license transfer are parties to the proceeding.

A similar problem has arisen in connection with roaming requirements. As earlier noted, the Commission allowed its omnibus proceeding addressing CMRS roaming requirements to languish for more than a decade. In the meantime, every major wireless merger transaction that has taken place over the past several years has been subject to petitions raising concerns about future roaming rights.⁶⁹ As a result, the Commission adopted a series of *ad hoc* roaming requirements in the context of pending acquisition proceedings.⁷⁰ While these restrictions are

⁶⁸ See *Sprint Nextel Corporation and Clearwire Corporation, Applications for Consent to Transfer Control of Licenses, Leases, and Authorizations*, Memorandum Opinion and Order, 23 FCC Rcd 17570, ¶ 53 (Nov. 7, 2008).

⁶⁹ *Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC*, WT Docket No. 08-95, Memorandum Opinion and Order and Declaratory Ruling, 23 FCC Rcd 17444 (2008) (“*Verizon Alltel Order*”).

⁷⁰ For example, in the *Verizon Alltel Order*, the Commission required that Verizon Wireless agree to “honor the rates in ALLTEL’s existing roaming agreements with each carrier for the full term of the agreement or for four years from the closing date, whichever occurs later.” *Verizon Alltel Order* at ¶ 175.

justified and necessary especially as they relate to specific harms caused by the transaction being considered by the Commission, the preferred approach would be to make major policy decisions that can affect the industry as a whole in rulemaking proceedings rather than acting in the context of a bi-lateral dispute.

3. Unfunded Mandates

Another area of potential concern to MetroPCS is those circumstances where the Commission adopts potentially financially burdensome regulatory requirements without due regard for the financial impact on small or mid-sized carriers, new entrants, or innovators. MetroPCS appreciates the fact that the Commission is obligated in each rulemaking proceeding to assess the impact of the proposed rules on small businesses. However, the tendency has been to consider financial costs to be justified, particularly in circumstances where public safety is considered to be an issue. Thus, the back-up power requirements and E-911 requirements end up being adopted notwithstanding the impact on day-to-day business operations.

One imperative arising out of the current economic environment is that the Commission be sensitive to the ability of small and mid-tier carriers, new entrants and innovators to sustain the costs of increased regulation. In many instances, FCC policies end up being unfunded mandates that can be very detrimental to emerging competitors. The Commission must balance the need for regulatory changes against the regulatory costs in order to avoid unintended consequences.

IV. SPECTRUM REQUIREMENTS

MetroPCS commends the Commission for recognizing the importance of making additional spectrum available in order to promote innovation and investment. As the Cellular Telecommunications and Internet Association (CTIA) has indicated in recent filings, the industry

needs hundreds of megahertz of spectrum in order to meet reasonably foreseeable demands.⁷¹

And, it is essential that spectrum be made available in the near term.

As is reflected in the recent announcement made by MetroPCS regarding its selection of vendors for its 2010 launch of 4G Long-Term Evolution (“LTE”) wireless services,⁷² the industry is on the verge of an important technological evolution. This evolution will be facilitated and expedited if carriers can introduce LTE technology on new spectrum, and then reform existing spectrum over time. If, instead, carriers are required to replace existing systems on an accelerated basis rather than building out LTE systems on new spectrum, a series of economic transitional costs are incurred. These may include write-offs of the cost of network infrastructure, handset-related costs due to substituted technology and transitional costs associated with the changeover. There also is a risk that, if the Commission does not take steps to make spectrum available for the important evolution to 4G services, the United States will find itself falling behind other countries in the world in wireless deployment, as occurred during the 3G revolution, and undermine any national broadband plan that contemplates the introduction of new competition.

Notably, MetroPCS is not only interested in acquiring additional spectrum in order to upgrade to LTE technology in existing markets, but also MetroPCS needs to add capacity in a number of high growth markets to meet increased subscriber demand for existing services and to add additional advanced services. Growth in these markets is projected to exceed any increases in capacity that will be achieved by the LTE conversion. Additionally, and perhaps most

⁷¹ *CTIA Written Ex Parte Presentation*, p. 15, GN Docket Nos. 09-51, 09-47, 09-137, 09-157; WT Docket Nos. 08-165, 08-166, 08-167, 09-66, Sept. 10, 2009.

⁷² *Unlimited Wireless Carrier MetroPCS Announces Vendors for 2010 4G LTE Launch*, Press Release, Sept. 15, 2009, *available at*

important, MetroPCS would like to continue to expand service into a number of new markets where it does not have a presence currently and competition is sorely needed. Obviously, the Commission should adopt policies that promote new entry in this fashion. Finally, in order for competition to flourish, all wireless carriers must have reasonable access to the spectrum that will allow them to fully compete with the largest two carriers. Although emerging competitors do not need in excess of 120 MHz – the resources of the largest incumbent in many markets – to compete effectively, they will need considerably more than the 20-50 MHz that they have today. Without such spectrum, these carriers will be forced to compete in only isolated portions of the market. Since the conversion to 4G is now underway, the Commission needs to act quickly to allocate and auction existing spectrum and additional spectrum. As noted above, the best near-term sources for paired spectrum are the AWS H and J Blocks, and the 700 MHz D Block, in addition to a full spectrum inventory as described above.

A. Shared Spectrum

Considerable portions of the *NOI* are devoted to questions pertaining to issues of possible band sharing as a way to promote increased use and increased development of spectrum. MetroPCS supports the efforts of the Commission to explore these prospects. However, based on long experience, shared spectrum, unlicensed spectrum and spectrum available for secondary use will not be of great interest to carriers, such as MetroPCS, who have to invest hundreds of millions of dollars to deploy broadband wireless services.

Unlicensed spectrum is well-suited to certain applications and may warrant additional spectrum allocations. For example, the current unlicensed uses permitting WiFi are of significant benefit to the public. MetroPCS notes, however, that WiFi networks generally

<http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-newsArticle&ID=1331809&highlight=> (last visited Sept. 23, 2009).

require relatively small investments which makes them ideal for personal use. Similarly, Bluetooth and other personal use technologies make cost effective use of unlicensed shared spectrum. And, these technologies have been a spur to broadband adoption since customers no longer need to be tethered to a phone line or a wall.

However, unlicensed and shared spectrum does not work when considerable network infrastructure is needed to implement a proposed service. As the Commission knows, spectrum acquisition costs are only a small part of the costs associated with designing, implementing and operating sophisticated telecommunications networks. MetroPCS and others naturally are reluctant to incur the substantial investments in network infrastructure, customer acquisition costs, and constructing the necessary customer service infrastructure in circumstances where they do not have assured exclusive use of an identifiable spectrum resource. A licensee using non-exclusive spectrum has no way of knowing or accurately predicting the level and extent of use by other co-licensees. Thus, it is impossible for a network operator to predict the capacity it will enjoy on its constructed network or the revenues it will earn. Uncertainty of this nature deters investment because it increases risks.

Notably, principals of MetroPCS have considerable experience with shared spectrum. Several key executives are veterans of the paging industry in which shared use of spectrum was commonplace. For example, there were a myriad of guardband paging channel sharing arrangements in place throughout the country. Also, much of the development of the private carrier paging (PCP) market occurred through the shared development of PCP channels.⁷³ The

⁷³ The PCP channels did not generate nationwide and regional commercial systems until the Commission adopted rules which permitted carriers to “earn” exclusivity through investments. Amendment of the Commission’s Rules To Provide Channel Exclusivity To Qualified Private Paging Systems at 929-930 MHz, *Report and Order*, PR Docket No. 93-35, 8 FCC Rcd 8318

concerns of MetroPCS over the utility of shared spectrum are based upon this long experience. Ultimately, history shows that there is no widespread deployment of costly complex systems in the absence of license exclusivity.

Sharing also raises potential interference concerns. Recent proceedings demonstrate beyond question that theoretical analyses of interference are imperfect, and experts can differ on whether certain proposed uses will cause destructive/harmful interference. For example, difficult interference-related controversies have blossomed in the AWS-3 proceeding,⁷⁴ the White Spaces proceeding⁷⁵ and in the proceeding in which Clarity Media Systems is seeking a waiver to provide a travel plaza-based television transmission service in the 2025-2109 MHz band.⁷⁶ These debates all demonstrate the difficulty of reaching a consensus in advance on interference potential in a complex radio frequency (rf) environment. Because of these concerns, MetroPCS would be reluctant to pin its future on shared spectrum that could be subject to unquantifiable interference risks. Shared spectrum also presents greater likelihood of interference-based

(1993). This regulatory change spurred the investment in these systems and led to a number of nationwide systems being developed.

⁷⁴ See, e.g., *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*, Comments of United States Cellular Corporation, Jul. 24, 2008; see also *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*, Reply Comments of AT&T, Inc., WT Docket Nos. 07-195 and 04-356, Aug. 11, 2008.

⁷⁵ See, e.g., *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, Comments in Support of Petitions for Reconsideration of DIRECTV, ET Docket Nos. 04-186 and 02-380, May 8, 2009; see also *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, Comments of the National Cable & Telecommunications Association on Petitions for Reconsideration, ET Docket Nos. 04-186 and 02-380, May 8, 2009.

⁷⁶ See *Notification of Ex Parte Presentation*, Maximum Service Television, Inc., DA 07-1946, Sept. 17, 2009.

controversies among and between multiple users. Disputes of this nature serve as a distraction to a carrier seeking to provide public service.

B. Secondary Markets Policy

The Commission has taken a variety of steps to foster the development of a secondary market for assigned spectrum. In the view of MetroPCS, the Commission's long-term and short-term spectrum manager leasing and *de facto* transfer leasing rules are well-defined, and have been put to beneficial use by many carriers, including MetroPCS. Nonetheless, in the experience of MetroPCS, the secondary markets policy generally has been utilized by carriers only on a transitional basis. MetroPCS is not immediately aware of any instance in which a substantial new long-term competitive service has been launched on spectrum acquired in the secondary market. The reason is that substantial network infrastructure and implementation costs are involved in rolling out a new service, and carriers generally are unwilling to incur these costs on spectrum for which it is not licensed and as to which it holds no long-term expectancy.⁷⁷ MetroPCS urges the Commission to continue the secondary markets policy, but not to expect this policy to alter the competitive landscape in a significant fashion.

MetroPCS also notes that the secondary markets policy has not had the effect of causing large carriers to allow others to utilize their spectrum on any significant scale even in areas where they have more than they need and plan to use in the near term. The large incumbent carriers can afford to hold spectrum for future use and are not particularly anxious to promote competitive offerings. Further, through creative spectrum leasing arrangements, large carriers also can preserve spectrum using spectrum leases without any new investment taking place, thus defeating the intent of the construction requirements which were intended to drive the productive

⁷⁷ Like the real estate market, investors are unlikely to invest hundreds of millions of dollars in an asset in which they do not ultimately have control.

use of spectrum. As a result, the secondary markets policy has not fostered many new entrants or solved the spectrum shortage problems of small and mid-sized carriers

The *NOI* asks whether there are additional steps the Commission could take to promote band sharing and/or the greater secondary use of spectrum. *NOI*, paras. 42 and 43. For example, the Commission asks whether the imposition of spectrum user fees would encourage more efficient spectrum use. User fees are unlikely to deter warehousing by the spectrum-rich carriers and could adversely affect emerging competitors who can ill-afford them. To date, the major incumbents have been disinclined to lease or sell excess capacity to other carriers. Whatever the reasons for this, the companies are well-heeled enough to pay any user fees the Commission might impose without altering their course of conduct. Indeed, the size of the two largest carriers virtually precludes the Commission adopting any rate that applied across the industry that would not drive out all but the largest carriers. These carriers have over 10 times the subscribers of smaller carriers and can absorb such user fees where the smaller carriers would not be able to do so.

MetroPCS also does not think that a universal database that provides information regarding licensee contact information, as well as spectrum use and availability by geographic area and frequency band, could withstand a cost-benefit analysis. As a general rule, the private market seems to be working to identify spectrum that is available for sale or lease. Carriers and brokers know how to get the word out to potential buyers and lessees and how to contact potential sellers or lessors. The core problem is that there is a critical shortage of paired spectrum below 2.5 GHz, which means that not enough is available for sale or lease. Under these circumstances, a broad-based government-mandated information collection pertaining to frequency utilization would be unduly burdensome.

Rather than adopting a comprehensive spectrum utilization database which may impose regulatory costs with little real value, the Commission should investigate targeted instances of spectrum warehousing and incent carriers to find such warehousing. Just as the IRS allows whistleblowers to share in the recovery of monies resulting from tax fraud or tax avoidance schemes, the Commission should consider ways to reward carriers who identify wasteful spectrum uses and allocations or warehoused spectrum by according some element of benefit or licensing preference. Without such a program, carriers are not incented to find such warehousing since they may not be able to secure the license if it is returned to the Commission. The Commission previously managed a successful program in which prospective applicants who identified private radio facilities that were not in operation, or not operating in accordance with their licenses, to enjoy a “Finder’s Preference” when the fallow spectrum was relicensed.⁷⁸ One possibility would be to enable a “finder” to receive a preference in terms of a bidding credit for identifying spectrum that has not been properly developed or put to beneficial uses by the original licensee.

The key, on a going-forward basis, is to adopt well-balanced construction requirements that discourage the outright warehousing of spectrum for long periods of time with no intent to implement commercial service. Rather than adopting stringent late-term construction requirements coupled with “use-it-or-lose-it” penalties, the better approach would be for the Commission to adopt a series of interim build-out requirements which, if met, will show that the licensee is making steady progress towards full development of the spectrum.

⁷⁸ See *Amendment of Parts 1 and 90 of the Commission’s Rules Concerning the Construction, Licensing and Operation of Private Land Mobile Radio Stations*, Report and Order, PR Docket No. 90-481, 6 FCC Rcd 7297, ¶ 77 (1991).

C. Interference Protection

As earlier noted, several on-going proceedings demonstrate that it is difficult to predict with certainty the nature and extent of interference that will be caused by a proposed use. This being the case, the Commission must establish a clear interference protocol. The best approach is to implement a “first in time” rule that provides meaningful protection to incumbents from interference from new entrants, even if the new entrants are operating in accordance with all applicable rules. A bright line priority of this nature will dissuade incumbents from opposing new allocations or new uses simply because there is a theoretical concern of interference. As long as the incumbent is confident that the Commission will protect the incumbent’s system from interference and take prompt action to do so, the incentive for incumbents to oppose creative spectrum uses will be reduced. In this regard, the Commission’s suggestion of implementing an expedited ADR process to promptly resolve interference concerns is worth serious consideration. *See NOI* at para. 35. However, it must be made clear that any incumbent which is suffering interference from a subsequently-authorized user should enjoy interference protection pending ADR.

Further, the Commission must carefully consider potential adjacent channel interference in allocating spectrum. For example, much of the controversy surrounding the AWS-3 allocation being sought by M2Z focuses on the prospect for interference to previously licensed AWS-1 systems operating on adjacent bands. The Commission must take a leadership role with respect to interference and decisions must be made on a solid technical basis resulting from testing, not political influence.

Finally, MetroPCS does not foresee any benefit in allowing users to trade interference rights similar to the trading of pollution credits in a “Cap and Trade” system. *See NOI* at para. 37. Radio frequency interference is localized, whereas the pollution credits are based on the

objective of limiting the aggregate amount of pollution entering the atmosphere over a relatively large geographic area. Interference to one licensee is not mitigated simply because another carrier is suffering no, or a lesser amount, of interference. Indeed, arguments can be made that §303(f) of the Communications Act, which commands that the Commission make such regulations as it may deem necessary to prevent interference between stations, does not permit the Commission to implement an interference-tolerating Cap and Trade system. Indeed, there is considerable case law indicating that it is the policy of the Commission to promote and foster the development of new technology while at the same time ensuring that existing licensed operations are protected from harmful interference.⁷⁹ This core policy would be undermined if interference-free operations were able to be bargained away by licensees.

D. Auction Mechanisms

In the view of MetroPCS, one of the most important questions posed in the *NOI* is what auction mechanisms for providing access to spectrum will best support and encourage innovation. MetroPCS respectfully submits that it is time for new auction rules specifically designed to foster new and increased competition. It is confident the result will be innovation and increased wireless investment.

The implementation of competitive bidding procedures for the assignment of spectrum licenses has been one of the single most important regulatory changes to promote innovation and investment. Historically, comparative hearings were too slow, and lotteries were too random, to accomplish the ultimate objective of getting licenses promptly into the hands of those who value them highly and will put them to productive use. There were, though, fears expressed when

⁷⁹ *American Radio Relay League Inc. v. Federal Communications Commission*, 524 F.3d 227, 2008 US App Lexis 11704 (D.C. Cir. 2008).

auctions were first proposed that well-heeled incumbents would end up with all of the licenses.⁸⁰ These concerns led to the designated entity (“DE”) program which was designed to create opportunities for entrepreneurs, small businesses and other diverse applicants. In the early days, there were some notable successes in the DE program. For example, Cook Inlet Region, Inc. (“Cook Inlet”) was an Alaska Regional Corporation organized under the Alaska Native Claims Settlement Act.⁸¹ Cook Inlet, and various affiliated entities, became a notable success story for entrepreneur participation in telecommunications services. Cook Inlet and its affiliates constructed and introduced commercial service in more than 50 basic trading areas and rural markets throughout significant portions of the United States.⁸² And, MetroPCS itself is an example of an early DE success story. The licenses that form the core of the MetroPCS systems were acquired by its predecessor in interest in the broadband PCS C Block auction (FCC Auction No. 5) in which licenses were set aside for entrepreneurs and very small businesses. Having now grown to become the fifth largest facilities-based carrier serving over 6 million customers with a distinct business model, MetroPCS clearly is an embodiment of the benefits of encouraging the broad dissemination of licenses to diverse applicants as contemplated by the DE program.

Unfortunately, as the Commission knows well, controversy developed in the DE program as more and more participants entered into strategic arrangements with large incumbent carriers which, in the view of many, undermined the core objectives of the program. These arrangements were the natural outgrowth of the increasing need for licensees to gain access to substantial

⁸⁰ The results of the 700 MHz upper band auction – in which most of the spectrum was acquired by AT&T and Verizon – ratify these concerns.

⁸¹ 47 U.S.C. §1601 at seq.

⁸² See *Affidavit of Craig Floerchinger, Vice President of Cook Inlet Region*, filed December 1, 2000 with respect to Application File No. 0000216961.

capital to construct and operate networks. As a consequence of the resulting strategic arrangements, the Commission took major steps in 2006 to reduce the prospects of abuses in the program including limiting the permissible relationships with strategic partners and extending the period that DE licenses had to be held before licensees would be excused from paying back the bidding credits.⁸³ These changes, though well intentioned, have had the effect of drastically reducing the level and extent of participation of designated entities in spectrum allocations.⁸⁴ At this point, MetroPCS would be hard-pressed to identify any significant industry player that has emerged recently from the DE program.

In part, the problem is the result of an inherent tension between the objectives of the DE program and the ingredients that are necessary for a new entrant to succeed in the wireless business. These businesses are exceedingly capital intensive in the current wireless market environment which favors wide area service. Thus, any program that is largely focused on promoting small and very small businesses or purely new entrants is likely to be constrained due to limitations on the access such companies have to the capital necessary to develop competitive cutting-edge wireless services. While the Commission became concerned when this limitation was addressed by having the entrepreneurs become enmeshed with large incumbent carriers, discouraging these strategic relationships has had the predictable effect of reducing the number

⁸³ *Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures*, Second Report and Order and Second Further Notice of Proposed Rulemaking, WT Docket No. 05-211, 21 FCC Rcd 4753 (2006).

⁸⁴ In response to the abysmally low (0.64 percent) of minority winning bidders, Commissioner Adelstein stated: "It's appalling that women and minorities were virtually shut out of this monumental auction. It's an outrage that we've failed to counter the legacy of discrimination that has kept women and minorities from owning their fair share of the spectrum. Here we had an enormous opportunity to open the airwaves to a new generation that reflects the diversity of America, and instead we just made a bad situation even worse. This gives whole new meaning to 'white spaces' in the spectrum." *Commissioner Jonathan S. Adelstein Comments on Lack of Diversity Among Winners of 700 MHz Auction*, FCC News Release, Mar. 20, 2008.

of designated entities that succeed in winning licenses at auction and are able to become major players in the wireless market.

At the same time, the Commission adopted auction rules which tilted the playing field in favor of larger carriers. For example, the Commission licensed spectrum in larger blocks over large geographic areas and, in Auction 73, used combinatorial bidding. These changes, coupled with no limitation on large carrier participation, led to most of the spectrum being acquired by the Big-4 wireless carriers.

MetroPCS respectfully submits that it is time for the Commission to adopt new auction rules designed to foster new and increased competition in the wireless marketplace. Rather than according credits based upon an applicant's size, credits should be given to applicants in inverse proportion to the amount of attributable spectrum that the applicant holds in the auctioned license territory. Specifically, MetroPCS proposes the following sliding discount scale:

<u>Attributable Spectrum</u>	<u>% Discount</u>
0 to 20 MHz	60%
20 to 40 MHz	40%
40 to 60 MHz	20%
60+ MHz	0%

A discount structure of this nature would likely succeed in reversing the trend where the most spectrum-rich incumbents are able to garner the lion's-share of spectrum in future auction.

Rather, new entrants and small existing carriers desiring to expand and improve services within existing markets and to enter new markets would have an increased likelihood of being successful bidders in the auctions. The result would be increased competition and, as a result, increased innovation and investment.

This sliding credit scale generally would allow market forces, rather than regulatory command and control processes to work, while still increasing the prospects that new entrants, innovators and other persons needing spectrum would be able to end up as licensees. While the credits are substantial, and larger than those offered in the past, they are necessary to promote diversity and the broad dissemination of licenses. The largest carriers are in many cases 10 times the size (or larger) of those they are bidding against for spectrum. Also, as is discussed further below, the big entrenched incumbents enjoy substantial economies of scale that enable them to bid more than new entrants and others who only have a small market presence. Under this combination of circumstances, a 60 percent discount is necessary and may not in some instances prove to be sufficient. However, such a discount represents a reasonable balance between the need of the Commission, on the one hand, to make winning bidders pay enough to ensure that they have a seriousness of purpose and an economic incentive to put the spectrum to productive use and, on the other hand, to reduce the price enough so that smaller applicants have a realistic chance to acquire and develop spectrum.

In implementing this discount program, the Commission would need to attribute to each applicant any and all spectrum it has that covers any portion of the geographic area within the territory of the acquired license. The Commission could use current attribution rules to make this assessment. Applicants also would need to be attributed with all of the spectrum of any discloseable interest holder in the applicant. This would deter applicants from securing investments from incumbents with existing spectrum who would be ineligible to bid the target licenses directly. Applicants also would need to be attributed with all spectrum held by any entity with which the applicant had an auction-related agreement or strategic relationship. This would reduce the risk that auction applicants receiving significant discounts would be acting as

buyers of convenience for third parties who were ineligible to buy the spectrum on their own account.⁸⁵ Finally, as the Commission has done with the DE program, bidding discounts received pursuant to this program would be paid back if the subject license was acquired in the first five years, with the amount due being calculated on a straight-line basis.⁸⁶

Several wireless marketplace realities support this modified auction credit structure. The simple reality is that well-entrenched incumbents with substantial existing infrastructure always will be in a position to pay more for spectrum because their incremental costs of implementing service will be dramatically lower. Having allowed the major nationwide carriers to grow to their current sizes, the playing field simply is not level when it comes to the ability to support auction bids. The reason that Verizon Wireless and AT&T Mobility were able to out-bid others in the 700 MHz auction is that they enjoy substantial incremental cost advantage. Unless the Commission takes steps to provide discounts to applicants with lesser spectrum resources in the pertinent market areas, the current consolidation trend will continue and intensify.

The proposed discount plan also is justified by other structural changes that are taking place in the wireless market. Studies show that net revenues to wireless carriers from data services will decrease dramatically over time, meaning that discounts on spectrum will be necessary in order for business plans to succeed.

⁸⁵ In addition to these restrictions, applicants with more than the screen amount of spectrum should not be considered eligible to acquire spectrum in a particular market in the auction even if they were willing to pay full price without a discount. However, after the auction, the potential buyer could purchase this spectrum after repaying the discount.

⁸⁶ MetroPCS believes that a 5 year versus the current 10 year payback period is appropriate. If the term of payback is too long, investors may be deterred from investing since the residual value of the spectrum in the event an applicant's business model fails would be severely diminished. Notably, the DE program was more successful when the payback period was 5 years and has been largely a failure since it was moved to 10 years.

In implementing this sliding discount program, the Commission also should preclude any applicant from acquiring a license that would cause the licensee to exceed the pre-auction spectrum screen in any portion of the license area.⁸⁷ The reason that the screen should be considered a fixed “go/no-go” rule is that post auction application proceedings are completely ill-suited to the searching competitive analysis to which an application that trips the screen should be subjected. First, since the high bidder is forced to pay 100 percent of the winning bid amount immediately following the close of the auction and has no prospect of recouping the time value of money for any licensing delays, there is enormous pressure on the Commission to process and grant winning applications quickly. Second, because there is a risk that spectrum will lie fallow indefinitely if it is not licensed when it is first made available for auction,⁸⁸ the decisionmaking is skewed in favor of a grant even if troublesome competitive issues are raised. Given these institutional biases in favor of grants, it comes as no surprise that, in the absence of fraud or failure to make timely payment, the Commission has rarely if ever denied a post auction application. The better course is for the Commission to strictly apply the spectrum screen at the auction stage, and to conduct a full competitive review only if the spectrum is acquired by an applicant who trips the screen on a post auction aftermarket transaction. This also adds certainty during the auction because fewer issues arise as to whether the acquisition of spectrum by a particular incumbent will raise significant issues. Certainty creates incentives for new entrants to participate. This results in more robust auctions.

⁸⁷ By “pre-auction spectrum screen” MetroPCS means the screen in effect *prior to* the allocation of the spectrum that is the subject of the auction. The prior Commission practice of constantly adjusting the screen upward as each new spectrum block came on line has fostered the recent concentration that has occurred in recent months.

⁸⁸ These delays could occur either because of extended appeals in the event that the winning application is denied or because the Commission generally only conducts a re-auction when it has a number of licenses or channel blocks available for sale.

Further, since broadband services require significant spectrum and there is a substantial imbalance in the amount of spectrum held across the entire wireless industry, such a limitation will limit the ability of the carriers who already have 100 MHz+ of spectrum from hoarding new spectrum, and allow other carriers to purchase the spectrum they need to compete. The Commission should give substantial weight to the fact that the proposed discount plan holds hope of abating this concentration of wireless licenses that has accelerated in the recent past. The wireless industry is on the path to a two-tiered model in which a small number of nationwide carriers occupy the top tier (AT&T, Verizon and perhaps Sprint and T-Mobile) and the remaining carriers occupy a shrinking second tier. Absent policies that provide reasonable access to spectrum to second tier carriers, they will continue to disappear and a duopoly or oligopoly wireless market will result. Neither will foster innovation or investment.

MetroPCS submits that the changes to the auction rules it proposes are superior to adopting eligibility restrictions that would prohibit larger carriers from participating in auctions. As earlier noted, the Commission should not be in the business of picking winners and losers, which is what happens when it adopts absolute eligibility restrictions. Further, there may be instances where an outright ban would preclude the largest carriers from obtaining spectrum in markets where they may have less than the spectrum screen amount. Although the proposed credit program would not ensure that markets would go to new entrants or to emerging competitors, the approach holds the promise of increasing diversity while maintaining a market-based orientation which is preferable to set asides that totally distort the market. The approach also appears to hold promise of avoiding a repeat of the outcome of the 700 MHz auction without taking the heavy-handed approach of rendering the large carriers ineligible.

The Commission must also eschew using large geographic area and spectrum blocks in excess of 10 MHz, or combinatorial bidding, in auctioning new spectrum. Each of these conditions alone would tilt the outcome of any auction, and the combination of these conditions with no meaningful credits and spectrum cap have led to the current situation where practically all spectrum is acquired by the largest carriers. The changes proposed by MetroPCS will foster far greater diversity in the winning bidders.

Notably, the Commission has ample statutory authority to implement the changes proposed by MetroPCS. Section 309(j)(3) empowers the Commission “to design and test multiple alternate methodologies under appropriate circumstances” when coming up with systems of competitive bidding.⁸⁹ In designing the methodologies for use under the Act, the Commission is expected to promote “the development and rapid deployment of new technologies, products and services for the benefit of the public” and to promote “economic opportunity and competition” and to avoid “excessive concentration of licenses...by disseminating licenses among a wide variety of applicants including small businesses, rural telephone companies and businesses owned by members of minority groups and women.”⁹⁰ Notably, many entities falling into these “designated entity” categories would qualify for the highest bidding credit under the MetroPCS plan because they do not control large blocks of spectrum in many markets in the United States.

In effect, the MetroPCS proposal would recognize that the current straight up auction mechanism is not meeting the objectives of the Communications Act, or the public interest, because it is resulting in an undue concentration of licenses in a small number of service providers. The approach suggested by MetroPCS holds promise of curing this concentration

⁸⁹ 47 U.S.C. § 309(j)(3).

without eliminating market forces as a governing principle behind the auction. As such, the proposed auction rule changes would be an appropriate use of regulatory power based upon evidence that the previously utilized auction policies in the auction are not working to achieve the important objectives of the Communications Act.

V. CONCLUSION

The foregoing premises having been duly considered, MetroPCS Communications, Inc. respectfully requests the Commission to take actions to foster innovation and investment consistent with these comments.

Respectfully submitted,



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Dated: September 30, 2009

LEGAL_US_E # 85062325.8

⁹⁰ 47 U.S.C. § 309(j)(3)(B).

EXHIBIT 1

FCC 700 MHz Band Auction

Auction ID: 73

Bidder Payment/Refund



Date of Report: 03/19/2008 03:24 PM ET

Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
585 Consortium	0016069635	\$ 15,000.00	\$ 0.00	\$ 15,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 15,000.00)
ACS Wireless License Sub, Inc.	0004525325	\$ 156,000.00	\$ 0.00	\$ 156,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 156,000.00)
Adams Telcom, Inc.	0002805596	\$ 149,000.00	\$ 0.00	\$ 149,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 149,000.00)
Advance/Newhouse Partnership	0017165911	\$ 11,250,000.00	\$ 0.00	\$ 11,250,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 11,250,000.00)
Agri-Valley Communications, Inc.	0003778362	\$ 1,100,000.00	\$ 0.00	\$ 1,100,000.00	\$ 2,131,800.00	\$ 426,360.00	\$ 0.00	\$ 1,705,440.00	\$ 1,031,800.00
AlasConnect, Inc.	0000021188	\$ 202,000.00	\$ 0.00	\$ 202,000.00	\$ 560,000.00	\$ 112,000.00	\$ 0.00	\$ 448,000.00	\$ 358,000.00
Alltel Corporation	0002942159	\$ 150,000,000.00	\$ 755,700.00 *	\$ 149,244,300.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 149,244,300.00)
Aristotle Inc.	0016161788	\$ 350,000.00	\$ 0.00	\$ 350,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 350,000.00)
AST Telecom, LLC	0007435902	\$ 30,200.00	\$ 0.00	\$ 30,200.00	\$ 20,000.00	\$ 4,000.00	\$ 0.00	\$ 16,000.00	(\$ 10,200.00)
AT&T Mobility Spectrum, LLC	0014980726	\$ 500,000,000.00	\$ 0.00	\$ 500,000,000.00	\$ 6,636,658,000.00	\$ 1,327,331,600.00	\$ 827,331,600.00	\$ 5,309,326,400.00	\$ 5,309,326,400.00
AWS Spectrum, LLC	0016927360	\$ 600,000.00	\$ 0.00	\$ 600,000.00	\$ 753,950.00	\$ 150,790.00	\$ 0.00	\$ 603,160.00	\$ 153,950.00
Bascom Long Distance, Inc.	0004319703	\$ 93,000.00	\$ 0.00	\$ 93,000.00	\$ 693,750.00	\$ 138,750.00	\$ 45,750.00	\$ 555,000.00	\$ 555,000.00
Bay Electronics, Inc.	0005224027	\$ 930,000.00	\$ 0.00	\$ 930,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 930,000.00)
Bayou Internet, Inc.	0017118837	\$ 1,116,000.00	\$ 0.00	\$ 1,116,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 1,116,000.00)
BEK Communications Cooperative	0002477636	\$ 74,000.00	\$ 0.00	\$ 74,000.00	\$ 287,250.00	\$ 57,450.00	\$ 0.00	\$ 229,800.00	\$ 213,250.00
Bend Cable Communications, LLC	0003764727	\$ 187,000.00	\$ 0.00	\$ 187,000.00	\$ 6,745,000.00	\$ 1,349,000.00	\$ 1,162,000.00	\$ 5,396,000.00	\$ 5,396,000.00
Blanca Telephone Company	0003766201	\$ 30,000.00	\$ 0.00	\$ 30,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 30,000.00)
Blaze Broadband LLC	0016079170	\$ 89,000.00	\$ 0.00	\$ 89,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 89,000.00)
Blue Valley Tele-Communications, Inc.	0002331262	\$ 66,000.00	\$ 0.00	\$ 66,000.00	\$ 2,309,250.00	\$ 461,850.00	\$ 395,850.00	\$ 1,847,400.00	\$ 1,847,400.00
BlueBird Telecommunications Ltd.	0017190463	\$ 13,000.00	\$ 0.00	\$ 13,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 13,000.00)
Bluegrass Wireless LLC	0010698868	\$ 1,100,000.00	\$ 0.00	\$ 1,100,000.00	\$ 3,272,000.00	\$ 654,400.00	\$ 0.00	\$ 2,617,600.00	\$ 2,172,000.00
Bluewater Wireless, L.P.	0017173204	\$ 90,825,000.00	\$ 0.00	\$ 90,825,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 90,825,000.00)
BPS Telephone Company	0003730835	\$ 929,000.00	\$ 0.00	\$ 929,000.00	\$ 315,750.00	\$ 63,150.00	\$ 0.00	\$ 252,600.00	(\$ 113,250.00)
Bresnan Communications, Inc.	0017194473	\$ 3,500,000.00	\$ 0.00	\$ 3,500,000.00	\$ 3,859,000.00	\$ 771,800.00	\$ 0.00	\$ 3,087,200.00	\$ 359,000.00
Broadband Wireless Unlimited, LLC	0017181199	\$ 400,000.00	\$ 0.00	\$ 400,000.00	\$ 1,053,150.00	\$ 210,630.00	\$ 0.00	\$ 842,520.00	\$ 653,150.00
Budget Phone	0008394215	\$ 456,000.00	\$ 0.00	\$ 456,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 456,000.00)
Buffalo-Lake Erie Wireless Systems Co., L.L.C.	0009403692	\$ 535,000.00	\$ 0.00	\$ 535,000.00	\$ 281,250.00	\$ 56,250.00	\$ 0.00	\$ 225,000.00	(\$ 253,750.00)
Buggs Island Telephone Cooperative	0002031698	\$ 319,000.00	\$ 0.00	\$ 319,000.00	\$ 849,000.00	\$ 169,800.00	\$ 0.00	\$ 679,200.00	\$ 530,000.00
C&W Enterprises, Inc.	0004367074	\$ 98,000.00	\$ 0.00	\$ 98,000.00	\$ 96,750.00	\$ 19,350.00	\$ 0.00	\$ 77,400.00	(\$ 1,250.00)
Cable Montana LLC	0007466519	\$ 450,000.00	\$ 0.00	\$ 450,000.00	\$ 1,327,500.00	\$ 265,500.00	\$ 0.00	\$ 1,062,000.00	\$ 877,500.00
Cascade Access, L.L.C.	0004381547	\$ 4,800.00	\$ 0.00	\$ 4,800.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 4,800.00)
Cavalier Wireless, LLC	0015024631	\$ 42,000,000.00	\$ 0.00	\$ 42,000,000.00	\$ 46,352,250.00	\$ 9,270,450.00	\$ 0.00	\$ 37,081,800.00	\$ 4,352,250.00
Cellco Partnership d/b/a Verizon Wireless	0003290673	\$ 885,000,000.00	\$ 0.00	\$ 885,000,000.00	\$ 9,363,160,000.00	\$ 1,872,632,000.00	\$ 987,632,000.00	\$ 7,490,528,000.00	\$ 7,490,528,000.00
Cellular South Licenses, Inc.	0005411426	\$ 29,634,000.00	\$ 0.00	\$ 29,634,000.00	\$ 191,533,000.00	\$ 38,306,600.00	\$ 8,672,600.00	\$ 153,226,400.00	\$ 153,226,400.00
Central Texas Telephone Investments, LP	0001649508	\$ 2,500,000.00	\$ 0.00	\$ 2,500,000.00	\$ 6,347,000.00	\$ 1,269,400.00	\$ 0.00	\$ 5,077,600.00	\$ 3,847,000.00

FCC 700 MHz Band Auction

Auction ID: 73

Bidder Payment/Refund

Attachment B



Date of Report: 03/19/2008 03:24 PM ET

Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
Central Wisconsin Communications, Inc.	0003740586	\$ 233,000.00	\$ 0.00	\$ 233,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 233,000.00)
CenturyTel Broadband Wireless LLC	0015006471	\$ 25,000,000.00	\$ 0.00	\$ 25,000,000.00	\$ 148,964,000.00	\$ 29,792,800.00	\$ 4,792,800.00	\$ 119,171,200.00	\$ 119,171,200.00
Chariton Valley Communication Corporation, Inc.	0002532497	\$ 58,000.00	\$ 0.00	\$ 58,000.00	\$ 1,984,750.00	\$ 396,950.00	\$ 338,950.00	\$ 1,587,800.00	\$ 1,587,800.00
Chequamegon Communications Cooperative, Inc.	0002713683	\$ 177,000.00	\$ 0.00	\$ 177,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 177,000.00)
Chester Telephone Company	0003707775	\$ 50,000.00	\$ 0.00	\$ 50,000.00	\$ 215,900.00	\$ 43,180.00	\$ 0.00	\$ 172,720.00	\$ 165,900.00
CHEVRON USA INC.	0003194933	\$ 78,000.00	\$ 0.00	\$ 78,000.00	\$ 1,663,000.00	\$ 332,600.00	\$ 254,600.00	\$ 1,330,400.00	\$ 1,330,400.00
Choice Phone LLC	0004242475	\$ 116,300.00	\$ 0.00	\$ 116,300.00	\$ 1,003,000.00	\$ 200,600.00	\$ 84,300.00	\$ 802,400.00	\$ 802,400.00
Churchill County Telephone d/b/a CC Communications	0001585397	\$ 40,600.00	\$ 0.00	\$ 40,600.00	\$ 210,000.00	\$ 42,000.00	\$ 1,400.00	\$ 168,000.00	\$ 168,000.00
Cincinnati Bell Wireless LLC	0003010493	\$ 4,400,000.00	\$ 0.00	\$ 4,400,000.00	\$ 2,829,000.00	\$ 565,800.00	\$ 0.00	\$ 2,263,200.00	(\$ 1,571,000.00)
Citizens Mutual Telephone Cooperative	0003733029	\$ 33,000.00	\$ 0.00	\$ 33,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 33,000.00)
Club 42 CM Limited Partnership	0017190224	\$ 4,441,250.00	\$ 0.00	\$ 4,441,250.00	\$ 1,670,250.00	\$ 334,050.00	\$ 0.00	\$ 1,336,200.00	(\$ 2,771,000.00)
COLI Inc	0017146051	\$ 175,000.00	\$ 0.00	\$ 175,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 175,000.00)
Columbia Cellular, Inc.	0017169509	\$ 40,000.00	\$ 0.00	\$ 40,000.00	\$ 674,050.00	\$ 134,810.00	\$ 94,810.00	\$ 539,240.00	\$ 539,240.00
Command Connect, LLC	0001711837	\$ 1,775,000.00	\$ 0.00	\$ 1,775,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 1,775,000.00)
Comporium Wireless, LLC	0005464284	\$ 1,017,000.00	\$ 0.00	\$ 1,017,000.00	\$ 2,350,000.00	\$ 470,000.00	\$ 0.00	\$ 1,880,000.00	\$ 1,333,000.00
Computer Techniques, Inc.	0017141102	\$ 25,000.00	\$ 0.00	\$ 25,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 25,000.00)
ComSouth Tellular, Inc.	0007039993	\$ 500,000.00	\$ 0.00	\$ 500,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 500,000.00)
Continuum 700 LLC	0017190216	\$ 22,665,000.00	\$ 0.00	\$ 22,665,000.00	\$ 66,134,250.00	\$ 13,226,850.00	\$ 0.00	\$ 52,907,400.00	\$ 43,469,250.00
Copper Valley Wireless, Inc.	0001568302	\$ 528,000.00	\$ 0.00	\$ 528,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 528,000.00)
Corn Belt Telephone Company, Inc.	0002592517	\$ 22,000.00	\$ 0.00	\$ 22,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 22,000.00)
Cox Wireless, Inc.	0015014202	\$ 36,000,000.00	\$ 0.00	\$ 36,000,000.00	\$ 304,633,000.00	\$ 60,926,600.00	\$ 24,926,600.00	\$ 243,706,400.00	\$ 243,706,400.00
Cricket Licensee 2007, LLC	0017171950	\$ 70,000,000.00	\$ 0.00	\$ 70,000,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 70,000,000.00)
Cross Telephone Company, LLC	0001700616	\$ 2,502,000.00	\$ 0.00	\$ 2,502,000.00	\$ 2,051,000.00	\$ 410,200.00	\$ 0.00	\$ 1,640,800.00	(\$ 451,000.00)
CRT Holdings, Inc.	0010273662	\$ 306,000.00	\$ 0.00	\$ 306,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 306,000.00)
CSC Spectrum Holdings LLC	0017161506	\$ 22,475,000.00	\$ 0.00	\$ 22,475,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 22,475,000.00)
CSConnect Inc.	0016492357	\$ 41,000.00	\$ 0.00	\$ 41,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 41,000.00)
CTC Telcom, Inc.	0003777919	\$ 131,000.00	\$ 0.00	\$ 131,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 131,000.00)
Cumby Telephone Cooperative, Inc.	0004321733	\$ 141,000.00	\$ 0.00	\$ 141,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 141,000.00)
Danville Mutual Telephone Company	0003745957	\$ 117,000.00	\$ 0.00	\$ 117,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 117,000.00)
Data-Max Wireless LLC	0017166422	\$ 56,000.00	\$ 0.00	\$ 56,000.00	\$ 325,500.00	\$ 65,100.00	\$ 9,100.00	\$ 260,400.00	\$ 260,400.00
Day Management Corporation	0001553585	\$ 163,000.00	\$ 0.00	\$ 163,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 163,000.00)
Delmarva Broadband LLC	0017118084	\$ 339,000.00	\$ 0.00	\$ 339,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 339,000.00)
Dragon Arch, Inc.	0017196320	\$ 50,000.00	\$ 0.00	\$ 50,000.00	\$ 403,500.00	\$ 80,700.00	\$ 30,700.00	\$ 322,800.00	\$ 322,800.00



FCC 700 MHz Band Auction
Auction ID: 73
Bidder Payment/Refund

Date of Report: 03/19/2008 03:24 PM ET

Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
East Ascension Telephone Company, LLC	0003738655	\$ 411,000.00	\$ 0.00	\$ 411,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 411,000.00)
East Kentucky Network, LLC	0001786607	\$ 775,000.00	\$ 143,400.00 *	\$ 631,600.00	\$ 406,000.00	\$ 81,200.00	\$ 0.00	\$ 324,800.00	(\$ 225,600.00)
Eastern Colorado Wireless II, LLC	0017179680	\$ 164,000.00	\$ 0.00	\$ 164,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 164,000.00)
Ellijay Telephone Company	0001858760	\$ 195,000.00	\$ 0.00	\$ 195,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 195,000.00)
Farmers Telecommunications Cooperative, Inc.	0001754738	\$ 51,000.00	\$ 0.00	\$ 51,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 51,000.00)
Farmers Telephone Company, Inc.	0004338489	\$ 29,000.00	\$ 0.00	\$ 29,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 29,000.00)
Fidelity Communications Company	0014955017	\$ 616,000.00	\$ 0.00	\$ 616,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 616,000.00)
First Mile Holdings, Inc.	0017150731	\$ 500.00	\$ 0.00	\$ 500.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 500.00)
FMTC Wireless, Inc.	0002576742	\$ 24,000.00	\$ 0.00	\$ 24,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 24,000.00)
Forum Communications Company	0002480085	\$ 821,000.00	\$ 0.00	\$ 821,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 821,000.00)
Frontier Wireless LLC	0017173121	\$ 115,253,100.00	\$ 0.00	\$ 115,253,100.00	\$ 711,871,000.00	\$ 142,374,200.00	\$ 27,121,100.00	\$ 569,496,800.00	\$ 569,496,800.00
FTC Management Group, Inc.	0004600268	\$ 145,000.00	\$ 0.00	\$ 145,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 145,000.00)
FWC Communications, Inc.	0004192795	\$ 38,000.00	\$ 0.00	\$ 38,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 38,000.00)
Glass, Laurence B	0016102832	\$ 49,000.00	\$ 0.00	\$ 49,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 49,000.00)
Glenwood Telephone Membership, Corporation	0002388262	\$ 607,000.00	\$ 0.00	\$ 607,000.00	\$ 1,145,250.00	\$ 229,050.00	\$ 0.00	\$ 916,200.00	\$ 538,250.00
Gold Radio Group, LLC	0015755309	\$ 300,000.00	\$ 0.00	\$ 300,000.00	\$ 603,500.00	\$ 120,700.00	\$ 0.00	\$ 482,800.00	\$ 303,500.00
Golden Belt Telephone Association, Inc.	0002333839	\$ 10,000.00	\$ 0.00	\$ 10,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 10,000.00)
Google Airwaves Inc.	0017171182	\$ 287,371,000.00	\$ 0.00	\$ 287,371,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 287,371,000.00)
Grand River Communication, Inc.	0003737392	\$ 123,000.00	\$ 0.00	\$ 123,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 123,000.00)
Granite State Long Distance, Inc.	0004317319	\$ 229,000.00	\$ 0.00	\$ 229,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 229,000.00)
Great American Broadband, Inc.	0017176173	\$ 450,000.00	\$ 0.00	\$ 450,000.00	\$ 524,250.00	\$ 104,850.00	\$ 0.00	\$ 419,400.00	\$ 74,250.00
Green Hills Area Cellular Telephone, Inc.	0003736253	\$ 26,000.00	\$ 0.00	\$ 26,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 26,000.00)
GreenFly LLC	0016191827	\$ 100,000.00	\$ 0.00	\$ 100,000.00	\$ 119,250.00	\$ 23,850.00	\$ 0.00	\$ 95,400.00	\$ 19,250.00
Guam Cellular & Paging	0004242723	\$ 54,300.00	\$ 0.00	\$ 54,300.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 54,300.00)
H & B Communications, Inc.	0002331601	\$ 29,000.00	\$ 0.00	\$ 29,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 29,000.00)
Hemingford Cooperative Telephone Company	0004262853	\$ 249,000.00	\$ 0.00	\$ 249,000.00	\$ 211,500.00	\$ 42,300.00	\$ 0.00	\$ 169,200.00	(\$ 37,500.00)
Horry Telephone Cooperative, Inc.	0001886944	\$ 506,000.00	\$ 0.00	\$ 506,000.00	\$ 8,469,000.00	\$ 1,693,800.00	\$ 1,187,800.00	\$ 6,775,200.00	\$ 6,775,200.00
Huxley Communications Corp.	0005002183	\$ 68,000.00	\$ 0.00	\$ 68,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 68,000.00)
I-700, LLC	0017163114	\$ 2,400,000.00	\$ 0.00	\$ 2,400,000.00	\$ 5,960,000.00	\$ 1,192,000.00	\$ 0.00	\$ 4,768,000.00	\$ 3,560,000.00
IdeaOne Telecom Group, LLC	0005095005	\$ 105,000.00	\$ 0.00	\$ 105,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 105,000.00)
Independents Fiber Network, LLC	0013194675	\$ 65,000.00	\$ 0.00	\$ 65,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 65,000.00)
Inland Cellular Telephone Company	0009639923	\$ 339,000.00	\$ 0.00	\$ 339,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 339,000.00)
Iowa Integra Consortium, LLC	0015030844	\$ 1,753,785.00	\$ 0.00	\$ 1,753,785.00	\$ 1,696,000.00	\$ 339,200.00	\$ 0.00	\$ 1,356,800.00	(\$ 57,785.00)



FCC 700 MHz Band Auction
Auction ID: 73
Bidder Payment/Refund

Date of Report: 03/19/2008 03:24 PM ET

Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
Iowa Telecommunications Services, Inc.	0006236475	\$ 1,862,000.00	\$ 0.00	\$ 1,862,000.00	\$ 5,894,000.00	\$ 1,178,800.00	\$ 0.00	\$ 4,715,200.00	\$ 4,032,000.00
James Valley Cooperative Telephone Company	0003709888	\$ 14,900.00	\$ 0.00	\$ 14,900.00	\$ 260,100.00	\$ 52,020.00	\$ 37,120.00	\$ 208,080.00	\$ 208,080.00
Kaplan Telephone Company, Inc.	0001714146	\$ 287,000.00	\$ 0.00	\$ 287,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 287,000.00)
Kinex Networking Solutions, Inc.	0017164583	\$ 34,000.00	\$ 0.00	\$ 34,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 34,000.00)
King Street Wireless, L.P.	0017169327	\$ 97,000,000.00	\$ 0.00	\$ 97,000,000.00	\$ 300,478,500.00	\$ 60,095,700.00	\$ 0.00	\$ 240,382,800.00	\$ 203,478,500.00
Kingdom Telephone Company	0002212314	\$ 75,000.00	\$ 0.00	\$ 75,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 75,000.00)
KTC AWS Limited Partnership	0015013410	\$ 466,100.00	\$ 0.00	\$ 466,100.00	\$ 2,898,000.00	\$ 579,600.00	\$ 113,500.00	\$ 2,318,400.00	\$ 2,318,400.00
Kurian, Thomas K	0003548443	\$ 1,000,000.00	\$ 0.00	\$ 1,000,000.00	\$ 1,109,250.00	\$ 221,850.00	\$ 0.00	\$ 887,400.00	\$ 109,250.00
Lackawaxen Long Distance Company, Inc.	0004334702	\$ 500,000.00	\$ 0.00	\$ 500,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 500,000.00)
LCDW Wireless Limited Partnership	0015024532	\$ 86,000.00	\$ 0.00	\$ 86,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 86,000.00)
Lexcom, Inc.	0004291951	\$ 652,000.00	\$ 0.00	\$ 652,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 652,000.00)
Ligtel Communications, Inc.	0007770084	\$ 215,000.00	\$ 0.00	\$ 215,000.00	\$ 1,219,000.00	\$ 243,800.00	\$ 28,800.00	\$ 975,200.00	\$ 975,200.00
LL License Holdings, LLC	0014152201	\$ 925,000.00	\$ 0.00	\$ 925,000.00	\$ 3,240,200.00	\$ 648,040.00	\$ 0.00	\$ 2,592,160.00	\$ 2,315,200.00
Lynch Wireless Broadband Company, LLC	0017181082	\$ 15,000,000.00	\$ 0.00	\$ 15,000,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 15,000,000.00)
MAC Wireless, LLC	0002576791	\$ 92,000.00	\$ 0.00	\$ 92,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 92,000.00)
Manti Telephone Company	0015031065	\$ 949,800.00	\$ 0.00	\$ 949,800.00	\$ 3,074,250.00	\$ 614,850.00	\$ 0.00	\$ 2,459,400.00	\$ 2,124,450.00
maxima international llc	0017196205	\$ 135,000.00	\$ 0.00	\$ 135,000.00	\$ 156,000.00	\$ 31,200.00	\$ 0.00	\$ 124,800.00	\$ 21,000.00
MCBRIDE SPECTRUM PARTNERS, LLC	0017145137	\$ 2,000,000.00	\$ 0.00	\$ 2,000,000.00	\$ 6,367,500.00	\$ 1,273,500.00	\$ 0.00	\$ 5,094,000.00	\$ 4,367,500.00
McDonald County Telephone Company	0002504058	\$ 40,000.00	\$ 0.00	\$ 40,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 40,000.00)
Mediapolis Telephone Company	0002594216	\$ 127,000.00	\$ 0.00	\$ 127,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 127,000.00)
MetroPCS 700 MHz, LLC	0017131202	\$ 153,681,800.00	\$ 0.00	\$ 153,681,800.00	\$ 313,267,000.00	\$ 62,653,400.00	\$ 0.00	\$ 250,613,600.00	\$ 159,585,200.00
MH Telecom, LLC	0004318929	\$ 87,000.00	\$ 0.00	\$ 87,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 87,000.00)
Mid-Missouri Telephone Company	0002509040	\$ 100,000.00	\$ 0.00	\$ 100,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 100,000.00)
Midwest AWS Limited Partnership	0014993794	\$ 368,000.00	\$ 0.00	\$ 368,000.00	\$ 1,139,250.00	\$ 227,850.00	\$ 0.00	\$ 911,400.00	\$ 771,250.00
Miles Communications Corp	0002884963	\$ 53,000.00	\$ 0.00	\$ 53,000.00	\$ 294,000.00	\$ 58,800.00	\$ 5,800.00	\$ 235,200.00	\$ 235,200.00
Miller, David	0017195561	\$ 2,250,000.00	\$ 11,400.00 *	\$ 2,238,600.00	\$ 5,859,000.00	\$ 1,171,800.00	\$ 0.00	\$ 4,687,200.00	\$ 3,620,400.00
Missouri Valley Wireless, LLC	0017165085	\$ 20,000.00	\$ 0.00	\$ 20,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 20,000.00)
MTA Communications, Inc.	0014820641	\$ 816,000.00	\$ 0.00	\$ 816,000.00	\$ 239,000.00	\$ 47,800.00	\$ 0.00	\$ 191,200.00	(\$ 577,000.00)
MTN3B Consortium	0014999585	\$ 571,700.00	\$ 0.00	\$ 571,700.00	\$ 1,197,650.00	\$ 239,530.00	\$ 0.00	\$ 958,120.00	\$ 625,950.00
Muenster Telephone Corporation of Texas	0004285474	\$ 33,000.00	\$ 0.00	\$ 33,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 33,000.00)
Mulberry Cooperative Telephone Company, Inc	0002886984	\$ 156,000.00	\$ 0.00	\$ 156,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 156,000.00)
Muskrat Wireless, LP	0002842425	\$ 22,000.00	\$ 0.00	\$ 22,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 22,000.00)



FCC 700 MHz Band Auction

Auction ID: 73

Bidder Payment/Refund

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Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
N.E. Colorado Wireless Technologies, Inc.	0008209629	\$ 1,000,000.00	\$ 0.00	\$ 1,000,000.00	\$ 2,022,000.00	\$ 404,400.00	\$ 0.00	\$ 1,617,600.00	\$ 1,022,000.00
NatTel, LLC	0017191123	\$ 40,000.00	\$ 0.00	\$ 40,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 40,000.00)
Neptuno Media	0012841458	\$ 704,400.00	\$ 0.00	\$ 704,400.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 704,400.00)
New Ulm Telecom, Inc.	0003739430	\$ 63,000.00	\$ 0.00	\$ 63,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 63,000.00)
North Dakota Network Company	0001566561	\$ 58,000.00	\$ 0.00	\$ 58,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 58,000.00)
Northeast Missouri Rural Telephone Company	0004337044	\$ 33,000.00	\$ 0.00	\$ 33,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 33,000.00)
Northeast Nebraska Telephone Company	0002388882	\$ 215,000.00	\$ 0.00	\$ 215,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 215,000.00)
Northern Iowa Communications Partners, LLC	0014990436	\$ 68,000.00	\$ 0.00	\$ 68,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 68,000.00)
Northern New Mexico Telecom, Inc.	0003786951	\$ 210,800.00	\$ 0.00	\$ 210,800.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 210,800.00)
Northwest Missouri Cellular Limited Partnership	0002534618	\$ 15,000.00	\$ 0.00	\$ 15,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 15,000.00)
NSIGHTTEL WIRELESS, LLC	0004059523	\$ 1,000,000.00	\$ 0.00	\$ 1,000,000.00	\$ 3,359,000.00	\$ 671,800.00	\$ 0.00	\$ 2,687,200.00	\$ 2,359,000.00
Nunn Communications, LLC	0011236395	\$ 260,000.00	\$ 0.00	\$ 260,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 260,000.00)
Palmetto Rural Telephone Cooperative, Inc.	0001886860	\$ 415,000.00	\$ 0.00	\$ 415,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 415,000.00)
Panhandle Telecommunication Systems, Inc.	0001704246	\$ 42,000.00	\$ 0.00	\$ 42,000.00	\$ 435,000.00	\$ 87,000.00	\$ 45,000.00	\$ 348,000.00	\$ 348,000.00
Paul Bunyan Rural Telephone Cooperative, Inc.	0002644953	\$ 400,000.00	\$ 0.00	\$ 400,000.00	\$ 175,000.00	\$ 35,000.00	\$ 0.00	\$ 140,000.00	(\$ 225,000.00)
PBP Bidco LLC	0017036799	\$ 60,000.00	\$ 0.00	\$ 60,000.00	\$ 326,000.00	\$ 65,200.00	\$ 5,200.00	\$ 260,800.00	\$ 260,800.00
PCS Partners, L.P.	0005746508	\$ 1,000,000.00	\$ 0.00	\$ 1,000,000.00	\$ 2,115,750.00	\$ 423,150.00	\$ 0.00	\$ 1,692,600.00	\$ 1,115,750.00
Piedmont Rural Telephone Cooperative, Inc.	0001887140	\$ 91,000.00	\$ 0.00	\$ 91,000.00	\$ 355,300.00	\$ 71,060.00	\$ 0.00	\$ 284,240.00	\$ 264,300.00
Pine Cellular Phones, Inc.	0012882643	\$ 291,900.00	\$ 0.00	\$ 291,900.00	\$ 1,399,100.00	\$ 279,820.00	\$ 0.00	\$ 1,119,280.00	\$ 1,107,200.00
Pioneer Telephone Cooperative, Inc.	0001700863	\$ 460,000.00	\$ 0.00	\$ 460,000.00	\$ 252,000.00	\$ 50,400.00	\$ 0.00	\$ 201,600.00	(\$ 208,000.00)
Poka Lambro Telecommunications, LTD	0004384525	\$ 113,000.00	\$ 0.00	\$ 113,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 113,000.00)
Polar Communications Mutual Aid Corporation	0003740040	\$ 164,000.00	\$ 0.00	\$ 164,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 164,000.00)
PTI Pacifica, Inc.	0004339933	\$ 103,300.00	\$ 0.00	\$ 103,300.00	\$ 1,293,000.00	\$ 258,600.00	\$ 155,300.00	\$ 1,034,400.00	\$ 1,034,400.00
Public Service Wireless Services, Inc.	0007024607	\$ 987,000.00	\$ 0.00	\$ 987,000.00	\$ 1,039,000.00	\$ 207,800.00	\$ 0.00	\$ 831,200.00	\$ 52,000.00
Puerto Rico Telephone Company, Inc.	0001731470	\$ 1,761,600.00	\$ 0.00	\$ 1,761,600.00	\$ 31,402,000.00	\$ 6,280,400.00	\$ 4,518,800.00	\$ 25,121,600.00	\$ 25,121,600.00
Pulse Mobile LLC	0012355764	\$ 108,000.00	\$ 0.00	\$ 108,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 108,000.00)
PVT Networks, Inc.	0001612555	\$ 1,257,000.00	\$ 0.00	\$ 1,257,000.00	\$ 3,064,250.00	\$ 612,850.00	\$ 0.00	\$ 2,451,400.00	\$ 1,807,250.00
QUALCOMM Incorporated	0004964318	\$ 195,000,000.00	\$ 0.00	\$ 195,000,000.00	\$ 558,142,000.00	\$ 111,628,400.00	\$ 0.00	\$ 446,513,600.00	\$ 363,142,000.00
Rainbow Telecommunications Association, Inc.	0002333649	\$ 42,000.00	\$ 0.00	\$ 42,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 42,000.00)



FCC 700 MHz Band Auction
Auction ID: 73
Bidder Payment/Refund

Date of Report: 03/19/2008 03:24 PM ET

Table with 10 columns: Bidder Name, FRN, Upfront Payment Amount, Total Withdrawal Payment Amount, Upfront Payment Balance Remaining, Total Winning Bid Net Amount, Down Payment Amount (20% of Net Winning Bids), Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008, Final Payment Amount (80% of Net Winning Bids), Final Balance Due by Apr 17, 2008 or (Refund). Rows list various bidders such as Red River Rural Telephone Association, Inc., Redwood Wireless Corp., etc.

FCC 700 MHz Band Auction
Auction ID: 73
Bidder Payment/Refund



Date of Report: 03/19/2008 03:24 PM ET

Bidder Name	FRN	Upfront Payment Amount	Total Withdrawal Payment Amount	Upfront Payment Balance Remaining	Total Winning Bid Net Amount	Down Payment Amount (20% of Net Winning Bids)	Additional Amount Due after Upfront Payment Balance Applied Due by Apr 03, 2008	Final Payment Amount (80% of Net Winning Bids)	Final Balance Due by Apr 17, 2008 or (Refund)
USA Choice Internet Services Company LLC	0016655912	\$ 143,000.00	\$ 0.00	\$ 143,000.00	\$ 290,250.00	\$ 58,050.00	\$ 0.00	\$ 232,200.00	\$ 147,250.00
Valley Telephone Cooperative, Inc.	0001685718	\$ 484,000.00	\$ 0.00	\$ 484,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 484,000.00)
Van Buren Wireless, Inc.	0014045504	\$ 33,000.00	\$ 0.00	\$ 33,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 33,000.00)
Vavasi NexGen Inc.	0017176207	\$ 20,000.00	\$ 0.00	\$ 20,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 20,000.00)
VentureTel 700, Inc.	0017189325	\$ 705,500.00	\$ 0.00	\$ 705,500.00	\$ 1,455,000.00	\$ 291,000.00	\$ 0.00	\$ 1,164,000.00	\$ 749,500.00
Vermont Telephone Company, Inc.	0005209374	\$ 1,002,000.00	\$ 0.00	\$ 1,002,000.00	\$ 1,357,450.00	\$ 271,490.00	\$ 0.00	\$ 1,085,960.00	\$ 355,450.00
Vulcan Spectrum LLC	0007028723	\$ 52,000,000.00	\$ 0.00	\$ 52,000,000.00	\$ 112,793,000.00	\$ 22,558,600.00	\$ 0.00	\$ 90,234,400.00	\$ 60,793,000.00
Washington County Rural Telephone Cooperative, Inc	0003936994	\$ 95,000.00	\$ 0.00	\$ 95,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 95,000.00)
West Carolina Communications, LLC	0004322350	\$ 99,000.00	\$ 0.00	\$ 99,000.00	\$ 345,100.00	\$ 69,020.00	\$ 0.00	\$ 276,080.00	\$ 246,100.00
West Wisconsin Telcom Cooperative, Inc.	0002722049	\$ 78,000.00	\$ 0.00	\$ 78,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 78,000.00)
Western Iowa Telephone Association	0002590073	\$ 74,000.00	\$ 0.00	\$ 74,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 74,000.00)
Whidbey Telephone Company	0004321451	\$ 1,525,000.00	\$ 0.00	\$ 1,525,000.00	\$ 4,671,600.00	\$ 934,320.00	\$ 0.00	\$ 3,737,280.00	\$ 3,146,600.00
Wireless Communications Venture	0002624856	\$ 139,000.00	\$ 0.00	\$ 139,000.00	\$ 8,055,000.00	\$ 1,611,000.00	\$ 1,472,000.00	\$ 6,444,000.00	\$ 6,444,000.00
world network international services Inc.	0014878599	\$ 1,000.00	\$ 0.00	\$ 1,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 1,000.00)
Worldcall Inc.	0017164179	\$ 411,000.00	\$ 0.00	\$ 411,000.00	\$ 1,438,500.00	\$ 287,700.00	\$ 0.00	\$ 1,150,800.00	\$ 1,027,500.00
WUE, Inc.	0003801362	\$ 4,800.00	\$ 0.00	\$ 4,800.00	\$ 141,750.00	\$ 28,350.00	\$ 23,550.00	\$ 113,400.00	\$ 113,400.00
WWW Broadband, LLC	0015026313	\$ 108,000.00	\$ 0.00	\$ 108,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 108,000.00)
Xanadoo 700 MHz DE, LLC	0017173873	\$ 1,000,000.00	\$ 61,575.00 *	\$ 938,425.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 938,425.00)
Xpressweb Internet Services, Inc.	0016099210	\$ 10,000.00	\$ 0.00	\$ 10,000.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	(\$ 10,000.00)

* Includes 10% of net withdrawn bid amount for interim withdrawal payments.