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FEDERAL COMMUNICATIONS COMMISSION
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Ms. Donna Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

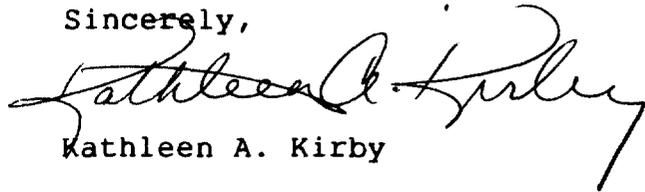
Re: Amendment of the Commission's Rules to
Establish New Personal Communications Services
Gen Docket No. 90-314 ET Docket No. 92-100

Dear Ms. Searcy:

Pursuant to the Notice of Proposed Rulemaking and Tentative Decision issued in the above-captioned proceeding, enclosed are an original and six copies of the Comments of Paging Network, Inc.

Should any questions arise concerning this filing, kindly contact the undersigned directly.

Sincerely,


Kathleen A. Kirby

Enclosures

KAK:jlw



Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)	
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Amendment of the Commission's)	Gen Docket No. 90-314
Rules to Establish New Personal)	ET Docket No. 92-100
Communications Services)	
)	
Paging Network, Inc.)	PP-84
)	
Mobile Telecommunications)	PP-37
Technologies Corporation)	
)	
Requests for a Pioneer's)	
Preference for Pioneering the)	
Ability for Spectrally Efficient,)	
Cost Effective One-Way Mobile)	
Voice Communications in the)	
930-931 MHz Band)	

To: The Commission

COMMENTS OF PAGING NETWORK, INC.

PAGING NETWORK, INC.

Judith St. Ledger-Roty
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November 9, 1992

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SUMMARY

In these two part Comments, Paging Network, Inc. ("PageNet") discusses the issues raised in the Commission's Notice of Proposed Rulemaking and Tentative Decision as they apply to narrowband PCS or advanced paging services.

Part I addresses the spectrum, licensing, and regulatory issues raised by the Commission's proposed allocation of 3 MHz in the 900 MHz spectrum for these services. PageNet urges the Commission to recognize that the Commission's ability to achieve its public interest objectives of permitting the market to offer consumers innovative and advanced paging services expeditiously will rise or fall based on the licensing procedures, the geographic scope of licenses, the channelization plan the Commission adopts for advanced paging, and the interrelationship between these issues.

To that end, PageNet submits that (1) license grants for advanced paging services should be national and regional; (2) license grants should be for bandwidths from 25 kHz to 250 kHz; and (3) licenses for advanced paging should be granted through competitive bidding, and lotteries should be considered only if auction authority is not forthcoming. PageNet also suggests that if advanced paging services are to be deployed in a manner that will satisfy consumer demand, the Commission should allow incumbents to hold licenses for, and the Commission should consider allocating additional spectrum to, these services.

Part II of these Comments asks the Commission to reconsider its Tentative Decision denying PageNet's request for a pioneer's preference for its innovative VoiceNow service. PageNet concludes that the Commission, apparently because it did not make the requisite comparative evaluation among applicants, failed to recognize that PageNet's transmission rates far outperformed those of MTel, which received a preference. Moreover, PageNet demonstrates that VoiceNow is unequivocally new and innovative under the Commission's established criteria. PageNet submits that the Commission's conclusion that VoiceNow is not innovative because it utilizes frequency reuse techniques is akin to declaring that the automobile was not innovative because the wheel was part of the horse and buggy.

Finally, PageNet believes that the Commission's goals would best be served through the grant of additional pioneer's preferences. Therefore, PageNet urges the Commission to reward proposals, such as PageNet's, which meet the Commission's criteria and thus are of obvious benefit to the public, rather than letting them become bogged down in a regulatory morass which, excepting auction allocations, will result, ultimately, in the delay of service to the public.

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To: The Commission

COMMENTS OF PAGING NETWORK, INC.

Paging Network, Inc. ("PageNet"), by its attorneys, herein submits its Comments regarding the Notice of Proposed Rulemaking ("NPRM") and Tentative Decision issued in the above-captioned proceeding.¹ PageNet's Comments specifically address the spectrum, licensing, and regulatory issues raised by the Commission's proposed allocation of 3 MHz in the 900 MHz spectrum for narrowband PCS services, also known as

¹ Amendment of the Commission's Rules to Establish New Personal Communications Services, 7 FCC Rcd 5676 (released August 14, 1992) ("NPRM and Tentative Decision").

advanced messaging services ("AMS").² Further, PageNet asks the Commission to reconsider its tentative decision denying PageNet's request for a pioneer's preference (PP-84) for its innovative "VoiceNow" service and granting a tentative preference to Mobile Telecommunications Technologies Corporation ("MTel") (PP-37).

INTRODUCTION

PageNet is the largest and fastest growing paging company in the United States today. Its success is based in part on the allocation and grant, in 1983, of the 931 MHz band to paging companies willing to make the higher investment in infrastructure that those paging frequencies required.³ PageNet applied for, and was granted, frequencies in many major markets, where often there were more

² In a letter filed with the Commission on August 12, 1992, PageNet urged the Commission to immediately create separate procedural tracks for AMS and broadband personal communications services ("PCS"). PageNet believes that the issues pertaining to the introduction of advanced paging services are well-defined and capable of more rapid resolution than those pertaining to broadband PCS. After all, these service are innovative extensions of the very paging services that the paging industry has been offering for a number of years. PageNet also believes that the Commission's characterization of advanced paging services as PCS will further encourage speculators to apply for frequencies which established companies have relied on as a means of providing the advanced paging services they have developed and can make available to the public in the near term. Therefore, PageNet again urges the Commission to separate these proceedings.

³ See Amendment of Part 22 to Allocate Spectrum in the 928-941 MHz Band, Memorandum Opinion and Order on Reconsideration, 93 FCC 2d 908 (1983).

frequencies than applicants. PageNet built state-of-the-art wide-area and regional paging systems on those frequencies, now often serving upwards of 100,000 users on a single wide-area 25 kHz channel, and hundreds of thousands of users on regional systems.

Consistent with the Commission's NPRM and Tentative Decision, PageNet's Comments in this proceeding are divided into two parts. Part I addresses the issues raised in the NPRM, specifically the spectrum, licensing and regulatory decisions that will impact the development of advanced paging services. Part II considers the Commission's Tentative Decision concerning the award of pioneer's preferences to narrowband AMS applicants.

As Part I of these Comments reflects, PageNet recognizes that the era when a sole applicant exists for a frequency in a major market is over. Both the legitimate demand for frequencies over which mobile services can be provided, and the speculative demand caused by the application lottery gold rush, contribute to the fact that there will be more applicants than possible licensees for paging frequencies in major markets for the foreseeable future. Thus, the Commission must address the means by which licenses shall be awarded.

This is not a mere esoteric exercise. PageNet has concluded, after careful and thoughtful consideration, that the Commission's ability to achieve its public interest objectives of permitting the market to offer consumers

innovative and advanced paging services rapidly will rise or fall based on the licensing procedures, the geographic scope of licenses, the channelization the Commission adopts for advanced paging, and the interrelationship between these issues. There are right and wrong answers. The Commission's ability to choose correctly among them will determine whether the public benefits from the innovative and/or advanced services some of the pioneer's preference applicants propose will accrue in this century, if at all.

For example, one option which undoubtedly will be suggested is a postcard lottery for local channels. A lottery for 120 25 kHz channels, all licensed locally, could certainly be devised. This approach would allow all potential applicants, speculators and proven carriers alike, an equal opportunity to obtain a license. The Commission might well be able to put out lottery notices and conduct lotteries for the top 100 markets in the next year, and thus be able to claim that the public was served by the rapid grant of licenses.

In reality, the rapid grant of local licenses in 25 kHz channels would guarantee that advanced paging services are not offered in this century. As will be demonstrated, infra, both economies of scale and the market for paging services dictate that paging services be national and regional in scope. Thus, under the scenario just described, entities desiring to provide a viable advanced paging service would need to begin buying up local paging licenses (on the same

frequencies) across the region or nation. Those entities desiring to provide innovative paging services which require substantially greater bandwidth, such as PageNet, would also have to begin buying up multiple channels in every geographic region they plan to serve.

PageNet, for example, would have to complete, at a minimum, 500 acquisitions (50 markets x 10 channels) in order to provide VoiceNow, just during the first year of operation.⁴ It would also have to complete at least 500 transfers of control at the federal level, and perhaps hundreds more at the state level. The result would be that the public would not get the services developed by the innovators, and which the Commission promised would be available, for a very, very long time. The Commission would then have adversely affected the provision of advanced paging services to the public, not advanced its provision.

Fortunately, there are alternatives which yield a more optimum result. These Comments explain, in some detail, that auctions or, if ultimately necessary, lotteries, of at least some 250 kHz channels on a national and large regional basis will best serve the public.⁵ In either circumstance, the

⁴ PageNet has pledged to build 300 transmitters in 50 markets within the first year of operation. See PageNet Petition for Rulemaking, ET Docket 92-100, filed June 1, 1992 at 25.

⁵ See discussion concerning auctions and lotteries, infra at 16-22. PageNet discusses channelization concepts and plans which permit services using different bandwidth, infra at 12.

entities most likely to offer advanced paging services will have a reasonable opportunity to purchase, either in a first or second market sale, the necessary facilities in a reasonable number of transactions within a reasonable time frame.

In fashioning its regulatory scheme for the advanced paging bands, there are several things the Commission should keep foremost in mind. First, AMS is not one service -- this spectrum will be home to a diversity of services, each with unique characteristics and needs. The pioneer's preference requests filed in this proceeding attest to that fact -- they include proposals for voice paging, two-way non-interactive messaging, acknowledgment paging, MRDS, and ground-to-air paging. Given the diversity of services that potentially fall under the advanced paging umbrella, the symmetrical rules and channelizations that the Commission has adopted for other radio services do not apply here. PageNet cautions the Commission not to "straight-jacket" any one of these services.

Part II of these Comments demonstrates that PageNet is entitled to a Pioneer's Preference for the innovative speed and efficiency at which it will offer voice paging services to the public. As described more fully in Part II, VoiceNow is a new voice paging service that, from a technical perspective, overcomes all of the inefficiencies which have made voice paging near extinction today. In developing VoiceNow, PageNet applied frequency reuse and voice

compression techniques to increase throughput over 22 times that of existing analog voice paging services, making it possible for high quality, easy-to-use voice paging to be offered ubiquitously and at reasonable rates, something never before accomplished.

The Commission, apparently because it did not make the requisite comparative evaluation among applicants, failed to recognize that PageNet's transmission rates far outperformed those of MTel, whom it granted a pioneer's preference. The Commission cannot have it both ways. If MTel is entitled to a preference for use of MCM at speeds of 24,000 bits per second, then PageNet most certainly deserves a preference for VoiceNow, which has achieved speeds of 80,000 bits per second.

Moreover, the Commission incorrectly concluded that PageNet's VoiceNow was not innovative because it relied on frequency reuse, a spectrally efficient frequency utilization scheme used in cellular but never before applied to paging services. However, concluding that VoiceNow is not innovative because it utilizes frequency reuse techniques is analogous to declaring that the automobile was not innovative because the wheel was already part of the horse and buggy. The Commission's conclusion is unlawfully inconsistent with its grant of a pioneer's preference to MTel, as the multicarrier modulation for which it granted MTel a preference has similarly been known for years.

PART I. THE COMMISSION'S NOTICE OF PROPOSED RULEMAKING

I. LICENSING ISSUES -- THE COMMISSION SHOULD ALLOCATE AND GRANT AMS FREQUENCIES IN A MANNER THAT SATISFIES THE MARKET DEMAND FOR ADVANCED PAGING SERVICES

The Commission has wisely recognized the public benefits to be derived from advanced paging services.⁶ Its allocation of 3 MHz to this end provides a significant opportunity to permit substantial diversity in the paging services currently available, and thus to provide the public with more and better communications options. PageNet believes its VoiceNowsm service is the best example of the potential public benefit, but concedes that other advanced paging services, such as acknowledgment paging, have merit as well.

In order for a diversity of services to proliferate, carriers must have the spectrum available in the geographic

⁶ PageNet believes that Advanced Messaging Services should be defined as mobile or portable radio paging services including, but not limited to, data and advanced paging and messaging services, that are licensed in frequency blocks of 250 kHz or less, as determined by the Commission. PageNet includes those services which incorporate acknowledgment or low power return link communications, as these are critical aspects of many of the new technologies, and necessary to any system employing frequency reuse. PageNet believes, however, that two-way interactive services should be excluded from the 3 MHz of spectrum allocated for AMS. These services are currently being provided elsewhere, there is adequate spectrum already allocated for these services, and to allow the provision of these services in the spectrum allocated for AMS will destroy the consistency of the Commission's scheme for paging. Further, as discussed infra at 22, these 3 MHz will not satisfy the consumer demand for advanced paging services.

scope and bandwidth which allows the market for these services to develop rapidly, and with economic efficiency. The following paragraphs set forth the prerequisites for the market's development in this fashion.

A. License Grants Should Be National and Regional

PageNet urges the Commission to establish nationwide and large regional service areas to provide for flexibility in the design and implementation of 900 MHz advanced paging systems. As discussed below, the paging industry has already evolved from offering local to wide-area and regional systems, and more recently, national systems.⁷

Throughout PageNet's history, its customers have demanded greater coverage and greater functionality with each passing year. Other industry experts agree, predicting that in a year's time, up to half the new customers for paging service will be opting for regional, national, or international coverage.⁸ This growth is indicative of an increasingly mobile society. Urban sprawl has increased the distance covered by daily commuters. Over thirty million Americans take over 150 million business trips every year.⁹

⁷ PageNet suggests that, for the regional licenses, the United States be divided into no more than five (5) regions.

⁸ Roscoe & Wysor, Survey Shows Strong Growth in Paging Industry, Telocator, June 1990 at 14; Bean, Paging Outlook 1995, Telocator, Jan. 1989 at 29.

⁹ Id.

Furthermore, as formerly separate geographic markets have coalesced, the nature of the paging industry has changed. Given the market, a local only pager now makes about as much sense as a local only phone.

National and regional licenses are particularly important when one considers the diversity of paging services that will likely be offered over AMS frequencies. For the public to achieve maximum benefit, each service provider must be able to maximize its number of potential subscribers to take advantage of scale and scope economies.¹⁰ For example, carriers should be permitted to maximize efficiencies gained from product-specific scale economics, such as those achieved by volume production of infrastructure products specific to each carriers' particular services. Similarly, consumers should be permitted to benefit directly from the scale economies derived from volume production of terminal equipment such as digital voice pagers. There is a direct

¹⁰ The Commission has recognized the importance of achieving economies of scale and lowering the cost of providing service to each subscriber. See, e.g., Bundling of Cellular Customer Premises Equipment and Cellular Service, 7 FCC Rcd 4028, 4031 ¶ 20 (1992). In fact, the competitive realities of the paging industry should lead the Commission to apply the same reasoning it used in arriving at its decision to relax the national radio ownership rules. There, the Commission found that expansion of the national limits would strengthen existing stations by allowing them to achieve economies of scale through combining administrative, sales, promotion, and other functions. See Revision of Radio Rules and Policies, 71 R.R. 2d 227, 331 ¶ 9 (1992). Moreover, the Commission concluded that these economies of scale would enhance the quality of service. Id. The same economies of scale would apply to a nationwide paging service.

relationship between volume and price -- as with infrastructure products, as the number of pagers produced increases, the price per pager will decrease. See, e.g., F.M. Scherer, Industrial Market Structure and Economic Performance at 83 (1980) ("the larger the batch, the lower the average costs").

With traditional digital display paging, these economies were achieved in large part because of the lack of diversity in product. The vast majority of pagers sold in the last several years have been digital display pagers, thus permitting scale economies to benefit both carriers and their subscribers. However, based on the pioneer's preference requests proposed, there is a substantial diversity of service envisioned, each one of which will need to be offered in sufficient volume to take advantage of scale efficiencies, thus driving down the average price of infrastructure and pagers to the ultimate user. Further, the nationwide scope is critically important in order to interest equipment suppliers in building the necessary infrastructure and terminal equipment. The design and development costs of these products must be able to be spread over the largest possible population base in order to drive down the average per subscriber costs of equipment and to provide manufacturers with assurances that they will be able to recoup their investment within a reasonable time frame.

Therefore, it is clear that the 900 MHz band should be licensed for large nationwide and regional systems.¹¹

B. License Grants Should be for Bandwidths from 25 kHz to 250 kHz

A number of pioneer's preference applicants for advanced paging services request bandwidth broader than the 25 kHz channels that exist for conventional paging. These requests range from 25 kHz channels for acknowledgment to over 300 kHz for simulcast voice paging.¹² PageNet and PageMart each requested 250 kHz bandwidth, which they would subdivide into 25 kHz messaging, signalling and talk-back channels. The point, however, is that the channelization plan the Commission ultimately devises needs to be sufficiently flexible to accommodate uses of both 25 kHz of bandwidth and 250 kHz of bandwidth per license.

PageNet urges the Commission to grant licenses in blocks of bandwidth ranging from 25 kHz to 250 kHz. For example, PageNet envisions 250 kHz assymetrical grants could be

¹¹ The entire industry is poised to offer advanced paging services on a nationwide basis, as evidenced by the 13 pioneer's preference requests that propose using the 930-931 MHz advanced paging reserve for a variety of new applications, principally advanced paging and messaging services. No less than eight of these petitioners proposed a nationwide service and asked for a nationwide preference. See NPRM and Tentative Decision, 7 FCC Rcd at 5760 (Appendix C).

¹² The applicant for channels totaling over 300 kHz, Freeman Engineering Associates, has indicated, in industry discussions, that its system design can be accommodated in 250 kHz.

accomplished by having 200 kHz blocks, (for example, the 940 MHz band could be divided into 5 blocks) paired with 25 kHz channels for return link pager-to-transmitter communications at 901 MHz,¹³ and 25 kHz signalling channels at 930 MHz.¹⁴

PageNet submits that these large channel blocks should be licensed to permit the implementation of frequency reuse techniques. Frequency reuse is critically important given the limited nature of the spectrum available. Frequency reuse concepts can achieve spectral efficiencies which will enable providers to offer services previously precluded by capacity constraints, and for which there is substantial unmet demand.

PageNet expects that some of its competitors will oppose the grant of any available spectrum in large blocks based on their concern that grants of 250 kHz bandwidth will diminish their chances in a lottery of receiving 25 or 50 kHz channels. Clearly, the greater the amount of bandwidth in a channel, the fewer the number of potential licenses. However, the fact that the number of potential licensees is diminished by some amount in no way equates to a diminution of the public interest. As with cellular, maximum efficiencies and system capacities are often gained with the deployment of frequency reuse rather than simulcast

¹³ PageNet recognizes the consensus evolving in the industry that it is appropriate to reserve some spectrum at 901 MHz for low-band transmissions such as talk-back.

¹⁴ If the paired channel concept is not adopted, PageNet would request that four 250 kHz channels be allocated.

operations. As with cellular, PageNet has demonstrated that voice paging services can be provided with extraordinary increases in transmission speed and capacity using a total of 250 kHz of bandwidth (eight messaging channels of 25 kHz bandwidth, a signaling channel and a return link for pager-to-transmitter communications). Thus, the wider bandwidth promotes the public interest in service availability, as well as price reductions capable of being achieved through dramatic increases in capacity.¹⁵

Grants of multiple 250 kHz bandwidth licenses nationwide are particularly critical if the Commission ultimately concludes that it must award these frequencies by lottery rather than auction. Unless some channels are: (a) sufficiently wide (e.g., 250 kHz or combinations equal to 250 kHz) to provide the desired service; and (b) sufficiently broad in geographic scope (e.g., national or regional), no one desiring to offer innovative, spectrally efficient services like VoiceNow will be able to acquire the frequencies necessary to provide the service in a timely fashion, if at all.

Assuming, for example, that the Commission granted all of the 900, 930, and 940 MHz frequencies in 50 kHz channel blocks on a CGSA basis, PageNet would be required to complete 250 acquisitions (the acquisition of 5 channels in each of 50

¹⁵ With 250 kHz of bandwidth, PageNet will be able to serve 330,000 subscribers, a 22 fold increase over primitive voice systems operated in a simulcast mode. See Preference Request at 16.

CGSAs) in order to provide the service just in its start-up phase. Further, it would have to complete a comparable number of federal and state proceedings transferring control of those acquired frequencies to PageNet. The transaction costs are just too high, the delays too costly, and the chance of acquiring sufficient channels too remote to impose on the voice paging market.¹⁶

Granted, the transaction costs decrease on a continuum as the geographic scope and bandwidth increase. However, even assuming the number of transactions necessary to complete was substantially fewer (both in the market and at regulatory bodies), the delays inherent in finding a multitude of willing sellers and completing those transactions must be weighed when making these license grants. PageNet has made clear that it is prepared to build its VoiceNow service on a nationwide basis within one year after grant. It has demonstrated a pent-up demand for VoiceNow by users desirous of instantaneous one-way communications characterized by ease of use and high information content.¹⁷ VoiceNow will both increase productivity and promote consumers' welfare. It would be

¹⁶ These costs would be in addition to the purchase price for each frequencies in each market. Obviously, the price for the last frequency acquired could be substantially greater than the first, as the seller's leverage would increase. Using LATAs or MTAs would not significantly reduce the number of transactions, either in the start-up or second phase.

¹⁷ See Preference Request at 10-12 and accompanying exhibits.

unconscionable to make businesses and consumers wait years while PageNet and others attempted to complete acquisition after acquisition in order to ultimately, one day, provide a service for which there is a dramatic need today. The way to minimize that delay and begin to satisfy the public demand is to grant nationwide licenses of 250 kHz bandwidth.

C. The Commission Should Grant AMS Licenses Through Competitive Bidding

PageNet believes that competitive bidding would be the most appropriate mechanism for licensing AMS. There are two general arguments for including competitive bidding in a spectrum management program: auctions promote economic efficiency, and they provide the public fair compensation for the private use of the spectrum resource.¹⁸

Economists generally agree that the spectrum resource is most efficiently divided among uses and users when frequencies are granted to the combination of public and private activities that produce the greatest net value for society.¹⁹ PageNet believes that by licensing AMS through a competitive bidding process, the Commission will improve the economic efficiency of the current system of spectrum management by lowering transaction costs and assigning licenses more rapidly than through lotteries or comparative

¹⁸ See Congressional Budget Office, Auctioning Radio Spectrum Licenses, March, 1992.

¹⁹ Id.

hearings. It is this many-fold improvement in spectrum management and licensing which causes PageNet to conclude that auctions are far superior to any other form of allocation the Commission has under consideration.

As analysts have pointed out repeatedly, auctions are likely superior in the areas of administrative ease, transaction costs, and timeliness. A 1985 FCC study developed a hypothetical, but reasonable, estimate of how much it would cost to assign a license through each of three mechanisms -- auctions, lotteries, and comparative hearings. It concluded that the sum of the costs of transactions -- private spending to obtain the license and FCC administrative costs -- and the cost of delays in the assignment process were roughly the same for comparative hearings and lotteries, but only about one-sixth of that level for an auction.²⁰ The same study estimated that the processing time for an auction was one-quarter of that for a lottery and one-sixth of that for a comparative hearing process.²¹ Moreover, assigning licenses by competitive bidding is likely to discourage speculative license-seeking activity, thereby lowering private spending undertaken to obtain a license and the FCC's cost of administering the assignment process.

²⁰ Kwerel and Felker, Using Auctions to Select FCC Licensees, Federal Communications Commission, Office of Plans and Policy, Working Papers Series, no. 16 (1985) p. 8.

²¹ Id. at 16-20.

As PageNet indicated above, it is very concerned that the transaction costs associated with lotteries outweigh any possible public benefit under almost all circumstances. Depending on the geographic scope and bandwidth of licenses, PageNet could be required to suffer the costs associated with hundreds of transactions, which could be avoided through an auction process.

These costs, of course, are ultimately borne by the consumer. In fact, in cellular the transaction costs associated with the multitude of transactions cellular operators were forced to undergo in order to achieve economies of scale contribute to the high rates still charged today for cellular services. Advanced paging services cannot afford to be similarly encumbered. The public understands paging services to be a low cost means of meeting their communications needs; increases in the prices that they pay for these services would have a direct negative impact.

Further, the delays inherent in concluding five commercial transactions, and five or more regulatory proceedings, let alone fifty, are intolerable. VoiceNow is not a hypothetical service with a hypothetical subscriber base. Voice paging is a concrete service, recognized by both PageNet and Motorola as having immediate consumer demand of at least 18 million people near term.²²

²² To put things in perspective, the entire paging industry currently serves in the neighborhood of 11.8 million pagers. Wysor, Survey Shows Paging Growth and Predicts Stable Revenue, Telocator, August/September 1992.

PageNet believes that auctions are particularly appropriate allocation mechanisms for advanced paging services. The diversity of services possible under the advanced paging services umbrella has already been aptly illustrated through the pioneer's preference requests, many of which are unique one from the other. Moreover, the bandwidth of the requests differs, sometimes markedly. An auction could be fashioned which permits market forces, rather than the Commission, to determine bandwidth. As an example, a bidder could choose whether it needs one 25 kHz channel, or 250 kHz bandwidth, and bid accordingly. The diversity of services offered would thus be determined by the value entities put on offering those services, not by some Commission estimate of what channelization best serves the public interest.²³

Should the Commission conclude that it does not currently have legal authority to conduct auctions, PageNet urges the Commission to ask Congress for experimental authority to conduct auctions for the 3 MHz of AMS frequencies it has under consideration in this proceeding. PageNet believes that conducting an experiment at these frequencies could provide Congress and other parties with substantial experience in the use of auctions as an

²³ Under a lottery process, no matter how hard it attempts to avoid making judgments on behalf of the market, the Commission will be forced to do so. Some channelization plan, for instance, will need to be adopted, whether PageNet's or another entity's plan.