

assignment mechanism. This information could then be reviewed in considering whether to auction the spectrum under consideration for reversion to the public sector under the Dingell Bill.<sup>24</sup>

Further, unlike with PCS, the services generally under consideration by advanced paging applicants are sufficiently definite that, once licenses are awarded and manufacturers understand and deliver those products licensees want built, construction can begin. (As noted, PageNet has committed to build out 300 transmitters in 50 cities within one year of license award.) Thus, the application of auctions here would both promote the public welfare in properly assigning the licenses within a reasonable time frame, and would provide a low risk opportunity to comprehend more fully the potential behavior of players in a broader market for new licensees of spectrum yet to be allocated.

**D. Lotteries Should Be Considered Only If Auction Authority Is Not Forthcoming**

Only if the Commission does not have and has not obtained auction authority in the next Congressional session should it resort to lotteries, and only then for nationwide licenses of various bandwidths, ranging from 25 to 250 kHz.<sup>25</sup>

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<sup>24</sup> See H.R. 531, 102nd Cong., 1st Sess. (1991) ("Emerging Telecommunications Technologies Act of 1991").

<sup>25</sup> See supra at \_\_\_\_\_ for a discussion about the transaction costs associated with licenses of lesser geographic

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If and only if properly designed, lotteries can provide the Commission with a substantially inferior, although possibly workable, mechanism to award licenses for advanced paging services.

Clearly, lotteries for this spectrum will create some number of true speculators encouraged to file applications by the application mills. PageNet believes this event even more likely given the characterization of this spectrum as PCS. Speculation is simply unavoidable. In the context of lotteries, then, PageNet believes that rules should be devised to permit the rapid transfer of licenses from winning speculators to legitimate players who want to offer advanced paging services to a waiting public.

For example, no requirements that systems be constructed prior to transferability should be imposed. The public is best served in these circumstances by the rapid transfer of the spectrum resource to those who would put it to its highest and best use.

In sum, under certain circumstances, lotteries for nationwide channels of various sizes up to and including 250 kHz are an inferior but perhaps workable assignment mechanism if auctions are not possible. If nationwide licenses of up

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scope and bandwidth. The Commission should consider establishing need showings for those entities requiring the greater bandwidth; a condition that the service offered thereunder incorporates frequency reuse, and that the applicant build the service proposed may be appropriate.

to and including 250 kHz bandwidth were permitted to be traded unencumbered, legitimate licensees could probably, albeit with substantial unnecessary delays and added transaction costs, obtain the frequencies necessary to provide the proposed advanced paging services.

**E. The Commission Should Allocate Additional Spectrum to Advanced Paging Services**

The Commission has proposed that 220 MHz of spectrum in the 1850-1990, 2110-2150, and 2160-2200 MHz bands be allocated for emerging technologies. 110 MHz of this 2 GHz of spectrum would be allocated for PCS services. In addition, the Commission has allocated 3 MHz for what it characterizes as narrowband PCS or advanced paging services.

In devising its final allocation scheme, the Commission must look to the projected demand for these individual services and weigh how any allocation will serve or disserve the public interest. PageNet submits that the 3 MHz of spectrum allocated to narrowband paging services will not satisfy consumer demand. As demonstrated above, a diversity of services potentially fall under the advanced paging services umbrella, each of which satisfies a different need. The demand for, and the growth of the extended paging market, including these services, is not a trend of the future, but a current happening, and exponential demand will continue in the coming decade and beyond.

The Commission's allocation of 3 MHz for advanced paging services is extremely conservative and will not suffice to meet users' long-term needs for these services. By the mid-1990s, this spectrum will already be inadequate to meet the projected needs in the largest cities. In light of the tremendous projected demand for advanced paging services, PageNet believes that the public interest would best be served by a spectrum allocation that anticipates projected demand and avoids future, protracted proceedings which will delay the provision of service to the public.

**F. Eligibility Requirements**

The Commission seeks comment on the applicability of the eligibility rules it proposes for cellular companies and LECs to the eligibility to hold licenses in the 900 MHz PCS bands. PageNet believes that there are no legitimate anticompetitive concerns which merit precluding incumbents from providing AMS services, and that the public interest would best be served by imposing no eligibility restrictions on AMS licensing. In fact, incumbents are the entities that can most appropriately utilize these frequencies. These frequencies are no more than the inventory existing paging carriers need to continue to serve the paging market. Moreover, PageNet believes that the Commission should impose no limits on holding multiple licenses in this band.

## II. REGULATORY ISSUES

### A. Regulatory Status

The paging marketplace is currently regulated, depending on the frequency used, under the Commission's rules governing common or private carrier services. Advanced paging licensees should be permitted greater flexibility to choose between private or common carrier regulation. In some circumstances, it might be desirable for a carrier to offer advanced paging service on a common carrier basis. In others, private radio service rules might more appropriately govern, depending on the type of service the carrier has determined best serves its needs and the public interest.

The Commission has successfully implemented just such a flexible regulatory approach to other emerging technologies.<sup>26</sup> For example, current FCC policy provides that Multipoint Distribution Service ("MDS") licensees may elect the status under which they will initiate their service

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<sup>26</sup> The Commission authorized the sale of certain identified satellite transponders on a non-common carrier basis in Domestic Fixed Satellite Transponder Sales, 90 FCC 2d 1238 (1982). The Commission based its decision on an analysis of the evolving industry and its need for fixed satellite service ("FSS") flexibility in order to respond to market forces. The Commission also adopted a flexible regulatory approach for the Direct Broadcast Satellite ("DBS") Service. Direct Broadcast Satellites, 90 FCC 2d 676 (1982).

offerings.<sup>27</sup> Applicants are required to select whether they will provide service on a non-dominant common carrier or non-common carrier basis prior to receiving licenses.<sup>28</sup> An MDS provider may elect a different status for each particular channel for which it is licensed and may offer services in some areas as a common carrier, some as a non-common carrier. In addition, MDS licensees may modify their status selection.

In adopting the "elected status" approach, the FCC correctly reasoned that it is often the marketplace that really determines the proposed business relationship between a licensee and its customers. For instance, at its inception, MDS was expected to be predominantly a service for the transmission of data, video teleconferencing and other business information. It evolved, however, into a subscription video entertainment transmission service and different uses in different markets are continually emerging. The same reasoning applies to the provision of advanced paging services. Flexibility in the industry would (1)

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<sup>27</sup> See Multipoint Distribution Service, 2 FCC Rcd 4251 (1987).

<sup>28</sup> As a common carrier, the FCC generally treats an MDS licensee as non-dominant. The Commission forbears from imposing Title II requirements because the complaint process and market forces are sufficient to check a carrier's ability to profitably charge unlawful rates. The Commission's experience with the MDS industry suggests that these carriers do not possess the market power, in a competitive market, to set rates in contravention of Title II. MDS applicants choosing the status of a non-common carrier are subject to the Commission's Part 21 licensing rules (they must file an application for a radio construction permit authorization) and the general provisions of Title III.

provide the best price to the end-user; (2) maximize spectrum utilization; (3) increase innovation; and (4) enhance competition.

To regulate advanced paging on the exclusively common carrier or private carrier basis currently applicable to traditional paging providers would result in less innovation, less diversity and fewer options for consumers. In addition, it could preclude service entirely in markets, like Atlanta, GA, where additional common carrier competition is foreclosed. Instead, the Commission should adopt a flexible regulatory approach to promote the efficient use of the spectrum and to encourage the maximum economic development of paging technology to meet the changing needs of a competitive marketplace. This approach must permit licensees to choose common or private carriage and, in the case of nationwide licensees, to elect to operate as a private or common carrier on a market by market basis.

Regardless of which mode of operation the carrier chooses, it should not be constrained by limitations on user eligibility. The existing private radio rules currently impose just such a limitation prohibiting the use of private carrier paging frequencies by individuals for personal use. See 47 C.F.R. § 90.75(c)(10). This limitation, if applied to AMS, would drastically curtail the ability of carriers to serve existing unmet need for a variety of services. The regulatory scheme adopted by the Commission to facilitate the provision of AMS should be flexible enough to accommodate

this unmet need, regardless of whether the service is otherwise provided on a private or common carrier basis.

**B. Interconnection**

PageNet applauds the Commission for taking the initiative in its NPRM to ensure that carriers are entitled to obtain a type of interconnection that is reasonable for a particular advanced paging system and no less favorable than that offered by a local exchange carrier ("LEC") to any other customer or carrier. One of the key components to the success of advanced paging services will be a guarantee of access to state-of-the-art, fairly priced interconnection with the landline network. The Commission's past efforts in ensuring reasonable interconnection for radio common carriers have been laudable. The federally protected right to interconnection with the public switched telephone network enables traditional paging providers to achieve "co-carrier" status, creating stability in customer relations, and facilitating business planning.<sup>29</sup> The Commission's reasonable interconnection standards have been essential to the development of paging as a competitive telecommunications

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<sup>29</sup> See generally 47 U.S.C. §§ 201(a), 332(a)(1); Public Utility Comm'n of Texas v. FCC, 866 F.2d 1325 (D.C. Cir. 1989); Lincoln Telephone and Telegraph Co. v. FCC, 659 F.2d 1092 (D.C. Cir. 1981); Declaratory Ruling, The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services, 2 FCC Rcd 2910 (1987), recon. denied, 4 FCC Rcd 2369 (1989).

industry, and their applicability should be extended to advanced paging services.

PageNet believes that in order to further promote competition, interconnection rights should not differ depending on whether an advanced paging service provider is classified as a common carrier or a private carrier. In terms of paging, private and common carriers subscribe to identical services and thus warrant similar treatment. Except for the particular frequencies on which they operate, private carriers provide the same mobile services, albeit to a more narrow customer base given the current prohibition on serving individuals, in exactly the same way and with exactly the same equipment, as radio common carriers.

PCPs face the same hurdles as do RCCs in obtaining access to bottleneck facilities. They have no leverage; they are often competitors to the LEC's own paging operations, and they have no alternatives to the use of LEC access facilities. However, while private carriers must obtain the same or functionally equivalent facilities for interconnection as radio common carriers, there remain in some cases significant differences in the cost of facilities available to each. The fact that a radio common carrier gets a cheaper interconnection rate puts the private carrier at a competitive disadvantage because the private carriers' costs to provide an identical service are necessarily higher than those of radio common carriers.

These differences in interconnection rates charged to PCPs and RCCs constitute unreasonable discrimination under Section 202(a) of the Communications Act, 47 U.S.C. § 202(a), as well as under specific state statutes and regulations. Advanced paging service providers operating as private carriers should, therefore, be treated the same as RCCs for purposes of the rates, terms, and conditions under which they are permitted to interconnect.

## PART II. THE COMMISSION'S TENTATIVE DECISION

PageNet urges the Commission to reconsider the Tentative Decision announced in its NPRM to deny PageNet's Pioneer's Preference Request for its innovative VoiceNow services. In its Tentative Decision, the Commission concluded that PageNet had not demonstrated that VoiceNow was "new" or "innovative." However, the Commission's decision suggests that it has applied its pioneer's preference criteria inconsistently, clouding the definition of innovative. PageNet will demonstrate herein that its VoiceNow proposal amply satisfies the Commission's pioneer's preference criteria as set forth in the relevant precedent, and that PageNet is entitled to a pioneer's preference.

## I. BACKGROUND

### A. PageNet's VoiceNow Services

On June 1, 1992, PageNet filed with the Commission a Request for a Pioneer's Preference ("Preference Request") to provide innovative VoiceNow services.<sup>30</sup> As demonstrated in its Preference Request, PageNet has invested significant effort in developing this new voice paging service, which offers unprecedented capabilities. VoiceNow services are light years ahead of existing voice paging services, and represent advances in voice paging technology which compare favorably to advances cellular services introduced in the two-way mobile communications market.

As PageNet demonstrated in its Preference Request,<sup>31</sup> VoiceNow Services are elegant in their simplicity and a direct response to market demand for paging services with high information content and ease of use. The caller desiring to place a page will hear a personalized greeting followed by a beep, which signals the caller to leave his or her desired voice message. The message is captured and recorded in the pager unit -- not by a remote storage facility. After the caller leaves the message, the pager to which the message is sent will alert the paging customer that a message has been received. The paging customer can choose

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<sup>30</sup> See PageNet Request for Pioneer's Preference (PP-84), ET Docket No. 92-100, filed June 1, 1992.

<sup>31</sup> See Preference Request at 8.

whether to listen to the message instantly, or wait to listen to the message at a more desirable time. The message will replicate the calling party's own voice, permitting intonation and inflection in the original message to be perceived by the person receiving the messages. When the paging customer desires to hear the message, he or she can simply press a button on the pager. VoiceNow can be offered on a highly spectrally efficient basis, at prices of \$15 to \$20 per month, including pager rental.

PageNet seeks allocation of 250 kHz to enable the provision of VoiceNow.<sup>32</sup> As the record amply demonstrates, the novel technical framework for PageNet's VoiceNow cures the spectrum scarcity issues that have caused the virtual extinction of voice paging services in major markets, and enables the widespread provision of advanced paging on a spectrally efficient and cost effective basis.

PageNet's system merges simulcast and frequency reuse concepts, resulting in efficient use of limited spectrum. PageNet estimates that it can serve 22 times as many subscribers as it could using existing simulcast technology.

#### **B. The Commission's Tentative Decision**

On July 16, 1992, the Commission adopted the Tentative Decision in which it preliminarily concluded that PageNet's

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<sup>32</sup> See PageNet Petition for Rulemaking, ET Docket 92-100, filed June 1, 1992.

request for a pioneer's preference to provide VoiceNow services should be denied.<sup>33</sup> In addition, the Commission tentatively concluded that Mobile Telecommunications Technologies Corporation ("MTel") (PP-37) merits a preference for its multicarrier modulation ("MCM") techniques.<sup>34</sup>

The Commission's Tentative Decision indicated that in considering the pioneer's preference requests accepted for filing, the Commission evaluated (1) whether the applicant had demonstrated that its proposal constitutes a significant communications innovation; (2) whether the applicant was the party responsible for the claimed innovation; (3) whether the applicant had made a significant contribution in developing that innovation; and (4) whether the innovation reasonably will lead to establishment of a service not currently provided or substantially enhance an existing service.<sup>35</sup>

Under its established pioneer's preference criteria, the Commission also evaluates the extent to which any experiments conducted by the applicant or other technical showing

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<sup>33</sup> NPRM and Tentative Decision, 7 FCC Rcd 5676, 5737, ¶ 153.

<sup>34</sup> Id. at 5735, ¶ 149.

<sup>35</sup> Id. at 5734-35, ¶ 147. According to the Commission, in determining whether a proposal establishes a service not currently provided or substantially enhances an existing service, the Commission evaluates certain factors including, but not limited to, (1) added functionality; (2) new use of spectrum; (3) changed operating or technical characteristics; (4) increased spectrum efficiency; (5) increased speed or quality of information transfer; (6) technical feasibility; and (7) reduced cost to the public. Id.

demonstrate the proposal's viability. While the Commission tentatively denied the majority of the pioneer's preference requests based on a failure to demonstrate the subject proposal's technical feasibility,<sup>36</sup> the Commission did not find PageNet's Preference Request lacking in that regard. Instead, the Commission tentatively concluded that PageNet had failed to meet its burden of demonstrating that VoiceNow is "new" or "innovative."<sup>37</sup>

To the contrary, PageNet's proposal is new and innovative under the pioneer's preference criteria established by the Commission. PageNet will demonstrate herein that it is, indeed, entitled to a preference both under the Commission's stated criteria and under a comparative determination which the Commission unlawfully failed to apply.

## **II. IN AWARDING A PIONEER'S PREFERENCE, THE COMMISSION STRAYED FROM ITS ESTABLISHED CRITERIA**

In making its decision regarding the requests for pioneer's preferences filed in this proceeding, the Commission failed to apply its established criteria. Specifically, the Commission's reasoning as to what

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<sup>36</sup> Id. at 5736-39, ¶¶ 152-163. For example, the Commission tentatively denied the pioneer's preference requests filed by Page Mart (PP-40), Freeman Engineering Associates (PP-79), Metriplex (PP-81), Skycell (PP-85), Dial Page, L.P. (PP-35), and Echo Group, L.P. (PP-36) for lack of a technical showing.

<sup>37</sup> Id. at 5737, ¶ 153.

constitutes "innovation" in any given case has been arbitrary at best. The Commission should be limited to applying the pioneer's preference criteria as set forth in the applicable rules,<sup>38</sup> proceedings,<sup>39</sup> and case precedent.<sup>40</sup> As described more fully below, PageNet has satisfied these clearly established criteria. Therefore, PageNet respectfully requests that the Commission reconsider its Tentative Decision and conclude that PageNet is entitled to a pioneer's preference.

The Commission has wrongly embraced "invention" rather than "innovation" as a prerequisite to the award of a pioneer's preference. Webster defines "innovation" as doing "something in a new way."<sup>41</sup> Similarly, the Commission, in its Preference Order, defined an innovative proposal as one which "has brought out the capabilities of the technology or service or has brought them to a more advanced or effective state."<sup>42</sup> In applying the pioneer's preference criteria in its Tentative Decision, however, the Commission strays from its test as established in the Preference Order and seems

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38 See 47 C.F.R. §§ 1.402, 1.403, 5.207.

39 See Establishment of Procedures to Provide a Preference, 6 FCC Rcd 3488 (1991) ("Preference Order"); recon. granted in part, 7 FCC Rcd 1808 (1992) ("Reconsideration Order").

40 See Tentative Decision for Low-Earth Orbit Satellites, 7 FCC Rcd 1625 (1992) (granting preference request of Volunteers in Technical Assistance).

41 Webster's Ninth New Collegiate Dictionary 624 (1990).

42 Preference Order, 6 FCC Rcd at 3494.

more disposed toward rewarding "invention,"<sup>43</sup> rather than innovation.

Specifically, the Commission granted MTel a pioneer's preference on the basis of MTel's development of "what [MTel] has named 'Multi-Carrier Modulation' (MCM) technology."<sup>44</sup> The language of the Tentative Decision implies that MTel "invented" MCM technology,<sup>45</sup> and therefore is deserving of a pioneer's preference. Moreover, by suggesting that VoiceNow is not new or innovative because it incorporates the frequency reuse techniques used in cellular systems, the Commission is embracing an "invention" requirement and retreating from its emphasis on innovation, as stated in its preference criteria. Not only is the Commission changing its rules midstream, its reasoning is illogical.

The Commission's pioneer's preference criteria do not equate innovation with invention. The Commission has explicitly stated that it will "consider the development of an innovative proposal to mean that the petitioner has brought out the capabilities or possibilities of the technology or service or has brought them to a more advanced or effective state."<sup>46</sup> This criteria does not embrace

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<sup>43</sup> Webster defines "invention" as producing "something for the first time," as opposed to in a new way. Id. at 636.

<sup>44</sup> NPRM and Tentative Decision, 7 FCC Rcd at 5735, ¶ 149.

<sup>45</sup> MTel is not the "inventor" of MCM technology, as is demonstrated infra at 44-45.

<sup>46</sup> Preference Order, 6 FCC Rcd at 3494.

invention, and under this criteria, PageNet is clearly deserving of a pioneer's preference.

### **III. VOICENOW IS CLEARLY INNOVATIVE UNDER THE COMMISSION'S CRITERIA**

PageNet clearly meets the criteria established in the Commission's Preference Order and, as described below, has unequivocally demonstrated the innovative nature of its VoiceNow services. As the paging industry has evolved, technical innovation is more and more becoming the brainchild of paging carriers, not manufacturers. Service providers are closer to the end user; therefore, the products they develop are directly driven by the demands of the marketplace.

It is this direct contact with consumers that drove PageNet's innovation. PageNet recognized that the market is demanding paging services with high information content and ease of use or, in other words, voice paging services. PageNet also realized that, in the absence of a technological breakthrough which would permit a significantly increased number of voice messages per channel, the service would never be economically viable. While conducting market research, PageNet brought together a team of experts in their respective fields to assist PageNet's own team of engineers in designing and deploying a spectrally efficient voice paging system on a cost-effective basis. PageNet's focus on the innovative integration and application of various technologies into a voice paging environment led to the

development of VoiceNow, a totally new and innovative paging service designed to meet the needs of both the carrier and the end user.

**A. PageNet is a Pioneer as Contemplated in the Commission's Preference Order**

As the record clearly demonstrates, PageNet's recognition and application of the advances achievable in voice paging through frequency reuse, voice compression and other advanced spectrally efficient technology, both singly and collectively, "constitute bringing out the capabilities and possibilities of technology and bringing them to a more advanced or effective state" as the Commission's criteria require. No one had previously contemplated frequency reuse to achieve the phenomenal capacity increases PageNet has obtained for voice paging services; no one but PageNet has yet understood and overcome the hurdles associated with using low powered acknowledgment transmitters in an urban, interference-limited environment, without which the application of frequency reuse techniques would be impossible; no one had contemplated enhancing the efficiencies already achieved through frequency reuse with advanced voice compression techniques. In fact, the whole industry has given up on ever providing voice paging services and has moved toward data, apparently having concluded that it would never be possible economically to serve the voice paging market or because they perceived no demand for the

comparatively primitive voice paging services it was previously possible to provide.

Therefore, 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. Undoubtedly, such reasoning flies in the face of progress. PageNet is the pioneer that understood the potential of these technologies, integrated their individual potential into a collective whole, and applied them to voice paging in order to achieve efficiencies which were never before imagined.

**B. PageNet is, in Essence, Proposing a "New" Service**

In their current state, voice paging services are dead. Their death is attributable not to a lack of demand, but to the spectral inefficiencies associated with the transmission of voice messages, which render them primitive in quality and uneconomical for carriers to provide. Through VoiceNow, however, PageNet will, in effect, resurrect voice paging as a preferred means by users of obtaining high information content and ease of use. Thus, PageNet proposes to replace a service that is all but extinct with a "new" offering that is spectrally efficient and highly desirable.

PageNet views VoiceNow as totally new and different from the comparatively primitive tone and voice services and voice storage services currently available. The capabilities

VoiceNow offers have never before been offered. Even assuming that voice paging does now "exist," PageNet has, at the very least, amply demonstrated a remarkable enhancement to the service. The combined use of simulcast paging, voice compression, channel reallocation and frequency reuse constitutes a significant, innovative change that transforms the service into one that meets previously unsatisfied market demand.

**C. VoiceNow will Satisfy a Previously Unserved Market**

PageNet's innovation extends beyond the application of certain technologies to paging; PageNet should be considered an innovator in the truest sense of the word because it, for the first time, has developed a means to satisfy unmet market demand. In essence, PageNet has done exactly what the Commission hoped would be done when it established the pioneer's preference criteria -- endeavored to find a way to bring the public a service it needs and will use.

VoiceNow's system design fosters the broadscale provision of one-way voice paging services to a mass market. Despite the tremendous unmet business and personal demand for voice paging services, these services have necessarily been shoved aside to allow for more spectrally efficient technologies. PageNet developed VoiceNow in direct response to market forces, recognizing that the market is demanding paging services with high information content and ease of

use. While the bulk of carriers have moved to data applications to satisfy this need, PageNet took a revolutionary, innovative approach and looked to satisfy this market demand through voice paging.

PageNet has long believed that a substantial market for voice paging exists -- a belief that was confirmed through its market study conducted as part of its consideration of VoiceNow services. As explained in PageNet's Preference Request, a study conducted by Economic Management Consultant International, Inc. ("EMCI Study") concluded that VoiceNow services were viewed by many market study participants as a preferred option over existing paging technology, and there was almost unanimous agreement among paging users that if in the market for a pager, they would select VoiceNow services.<sup>47</sup> Its research indicates "a high degree of interest and excitement" for VoiceNow. Consumers also indicated "a strong preference for VoiceNow over existing paging services, even at higher prices."<sup>48</sup> PageNet also realized that, in the absence of a technological breakthrough which would permit a significantly increased number of voice messages per channel, the service would never be economically viable.

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<sup>47</sup> See PageNet Preference Request at 10-12 and Exhibits 1 and 2.

<sup>48</sup> Id.

**D. PageNet's Technical Proposal is Clearly Innovative**

PageNet designed a system which fulfills both the users' and the carriers' requirements. The VoiceNow system is comprised of numerous innovations aimed at providing a high voice quality, high capacity service. PageNet synergistically combined frequency reuse, dynamic frequency reallocation, receiver locating, predictive propagation and compressed digital voice transmission to make the provision of VoiceNow possible. Through PageNet's innovative marriage of simulcast and frequency reuse and spectrum management techniques, coupled with its knowledge and experience in receive system engineering, the potential capacity to serve voice paging users will increase by 2200 percent. Further, the per subscriber costs of providing VoiceNow services are estimated to be approximately one half of the per subscriber costs of tone and voice services over a simulcast network.

The innovation proposed by PageNet is not merely in demonstrating the application of these technologies to paging. It also lies in recognizing and meeting the practical real world challenges in the design and implementation of its digital system. The result of PageNet's proposal is extraordinary increases in capacity. PageNet estimates that its utilization of simulcast and frequency reuse concepts to their maximum advantage will permit it to handle over 33,000 voice pagers per channel on a

typical system, as compared to its ability to serve 1200 tone and voice pagers on today's simulcast channels.

#### IV. PAGENET SATISFIES THE SAME STANDARD FOR INNOVATION AS MTEL

The Commission has clearly enunciated the factors it takes into consideration when evaluating a request for a pioneer's preference, yet the Tentative Decision offers no comparative analysis of how the applicants have or have not satisfied its criteria.<sup>49</sup> Instead, the Commission implies

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<sup>49</sup> In Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488, 3492 (1991), the Commission held that the comparative hearing requirement embodied in Section 309 of the Communications Act did not foreclose adoption of a pioneer's preference regime. However, the Commission did not address the question of whether the award of a pioneer's preference must be made pursuant to a comparative hearing and comparative evaluation. PageNet submits that the Commission improperly granted a pioneer's preference to MTEL and denied PageNet's petition for such a preference without conducting the requisite comparative evaluation.

The phrase "pioneer's preference" is a misnomer. The recipient does not receive a mere preference in a comparative hearing involving competing applicants. Rather, the recipient is virtually guaranteed of receiving a license outside the comparative hearing process. Indeed, the Commission found that the underlying purpose of a pioneer's preference would be defeated if it did not "guarantee an otherwise qualified innovating party that it will be able to operate in the new service by precluding competing applications." See 6 FCC Rcd at 3490; see also Request for Pioneer's Preference in Proceeding to Allocate Spectrum for Fixed and Mobile Satellite Services for Low-Earth Orbit Satellites, 7 FCC Rcd 1625, 1628 (1992).

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that it concluded that MTel was deserving of a pioneer's preference solely because MTel "developed" a technology with "improved bit rate capacity," allegedly "ten times that of existing state-of-the-art simulcast paging systems using an equivalent bandwidth."<sup>50</sup>

As a preliminary matter, MTel did not "develop" MCM technology; it beneficially applied an existing technology to an arguably new service in the same way PageNet incorporated

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It would unreasonably promote form over substance for the Commission to pretend that the award of a pioneer's preference is anything other than the award of a license. As the functional equivalent of a licensing decision, the Commission's grant or denial of petitions for a pioneer's preference must comply with Section 309 of the Communications Act. See 47 U.S.C. § 309; Ashbacker v. FCC, 326 U.S. 327 (1945) ("Ashbacker"). In effect, each petition is an application for a license and must be granted or denied as such through a comparative hearing.

The Commission has previously recognized that it may "establish threshold standards that applicants must satisfy before they are entitled to be eligible for comparative consideration," 6 FCC Rcd at 3492; see also United States v. Storer Broadcasting Co., 351 U.S. 192, 202-05 (1956). However, the award of a pioneer's preference does not involve threshold standards to determine eligibility for comparative consideration. Rather, it involves the award of a license through a process which supersedes any comparative consideration at all. The criteria used by the Commission to award a pioneer's preference are licensing criteria, not mere eligibility criteria, and they must be applied pursuant to a "full hearing" under Section 309.

Although the Commission articulated numerous criteria for determining whether to award a pioneer's preference, the Commission did not examine the extent to which each petitioner met each criterion. In sum, the Tentative Decision falls far short of the meaningful comparative hearing required by law.

50 NPRM and Tentative Decision, 7 FCC Rcd at 5735, ¶ 149.

frequency reuse in VoiceNow. Moreover, from the face of its Tentative Decision, the Commission has undertaken no real analysis of the subject pioneer's preference requests using the factors enunciated in its Preference Order, namely: (1) added functionality; (2) new use of spectrum; (3) changed operating or technical characteristics; (4) increased spectrum efficiency; (5) increased speed or quality of information transfer; (6) technical feasibility; and (7) reduced cost to the public. Moreover, if the Commission intended to give some of these criteria more weight than others, as it appears to have done given the emphasis on transmission speed apparent in its selection of MTel, due process requires that it so state. Its Preference Order provided no such notice.

As demonstrated below, a comparative analysis based on the Commission's established criteria reveals that PageNet is clearly deserving of a pioneer's preference. By tentatively concluding that VoiceNow is not within the class of innovations for which a preference can be granted, the Commission has, de facto, both changed and inconsistently applied the rules governing the issuance of a pioneer's preference.

**A. Both PageNet and MTel Apply Existing Technologies to New Services**

The Tentative Decision suggests that the fact that the frequency reuse techniques applied by PageNet to VoiceNow are