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

In the Matter of	)	GEN Docket No. 90-314
	)	ET Docket No. 92-100
	)	
Amendment of the Commission's Rules to Establish New Personal Communications Services	)	RM-7140, RM-7175, RM-7617
	)	RM-7618, RM-7760, RM-7782
	)	RM-7860, RM-7977, RM-7978
	)	RM-7979, RM-7980
	)	
	)	PP-35 through PP-40, PP-7
	)	through PP-85

COMMENTS

AMERICAN TELEPHONE AND
TELEGRAPH COMPANY

Francine J. Berry
David P. Condit
Peter H. Jacoby
Sandra Williams Smith

Its Attorneys

295 North Maple Avenue
Room 3244J1
Basking Ridge, New Jersey 07920

Dated: November 9, 1992

SUMMARY

The four objectives that the Commission has established for personal communications services ("PCS") -- competition, rapid deployment, interoperable service, and diversity -- should create a proper environment for this emerging service. AT&T's proposals in these Comments are designed to achieve the Commission's goals by facilitating an innovative and entrepreneurial environment for PCS.

AT&T supports the Commission's proposal, originally set forth in ET Docket No. 92-9 (NPRM, ¶ 46), to implement a negotiation process between new entrants and incumbents. This will encourage marketplace competition, provide flexibility in implementing emerging technologies, and facilitate reasonable rates and efficient use of valuable spectrum. To deter speculation and encourage meaningful spectrum negotiations, AT&T proposes a modified lottery process, whereby prior to entering the lottery, applicants would be required to meet strict entry requirements and post a significant performance bond for the development of PCS. In addition, a brief fixed transition period for incumbents should also be implemented to assure expeditious provision of new technologies. This will encourage incumbents to seriously consider relocation negotiations with the lottery winners.

AT&T also supports allocating 20 MHz of spectrum to each of five licensees in service markets that would be

coextensive with LATA boundaries. Allowing the licensing of five service providers, rather than imiting licensing to three, should assure that each has sufficient spectrum to provide a viable, yet competitive service. The 20 MHz of spectrum per PCS licensee approximates the amount already allocated to other mobile service providers, which should additionally facilitate competition. The LATA-bounded geographic service areas will enable PCS to compete on a level playing field and accommodate compliance with equal access obligations.

Finally, AT&T supports allocating the spectrum between 1910 and 1930 MHz for unlicensed applications. However, this initial 20 MHz standing alone is not an adequate amount to support unlicensed PCS because expected demand will soon outgrow the allocation. Hence, AT&T supports reallocating the currently untargeted 15 MHz between 1895 and 1910 for unlicensed users. Alternatively, the Commission could create a reserve for non-targeted reallocation for either licensed or unlicensed PCS, to meet future PCS growth needs.

TABLE OF CONTENTS

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

In the Matter of	)	GEN Docket No. 90-314
	)	ET Docket No. 92-100
	)	
	)	RM-7140, RM-7175, RM-7617
Amendment of the Commission's	)	RM-7618, RM-7760, RM-7782
Rules to Establish New Personal	)	RM-7860, RM-7977, RM-7978
Communications Services	)	RM-7979, RM-7980
	)	
	)	PP-35 through PP-40, PP-7
	)	through PP-85

COMMENTS

American Telephone and Telegraph Company ("AT&T") respectfully submits the following Comments in response to the Commission's Notice of Proposed Rulemaking and Tentative Decision ("NPRM"), released August 14, 1992.

INTRODUCTION

The NPRM (¶ 1) seeks "comprehensive comment" on how the Commission should structure the regulatory treatment of personal communications services ("PCS"), "including a variety of possible spectrum allocation and licensing schemes, so as to bring . . . . PCS to the public expeditiously and with the least amount of regulatory delay." The NPRM (¶ 6) also requests information to "attempt to optimize and balance four values in providing spectrum and a regulatory structure for PCS: universality; speed of deployment; diversity of services; and competitive delivery." It is the Commission's "goal to allocate sufficient spectrum and establish rules to

allow the widest possible range of such services" (NPRM, ¶ 21). Specifically, the Commission seeks comments concerning, among other things, the mechanism to be used to issue licenses, the geographic scope of each PCS license area, the number of licenses to be issued in each license area, and the types of entities to be allowed to apply for PCS licenses. These Comments separately address each of these issues.

DISCUSSION

I. THE COMMISSION SHOULD ADOPT A MODIFIED LOTTERY PROCESS FOR THE AWARDING OF PCS LICENSES

The Notice (¶ 2) states that "[i]n licensing mobile services, the Commission has squarely placed its faith in competitive markets and service flexibility as the best path to provide greater choice and low prices for consumers." In ET Docket No. 92-9, (NPRM, ¶ 46), the Commission has proposed "that new service providers be empowered to negotiate with the existing users for access to the 2 GHz frequencies and, conversely, to permit incumbents to negotiate with the new service providers for continued use of the spectrum." Here, the Commission (NPRM, ¶ 47) "solicit[s] comment on the merits of implementing such a negotiated relocation program, and on how the negotiation process should be implemented specifically with regard to PCS services." It also seeks (id.) "specific comment on what restrictions if any, the Commission should place on such negotiated arrangements."

AT&T strongly endorses the Commission's proposal to permit market-based transfers to assign newly allocated spectrum. As the Commission has correctly noted in other

proceedings, a competitive marketplace and licensees' incentives and abilities to meet market demands will have a greater positive impact on the quality and scope of service than other assignment processes.[1] Market-based assignment mechanisms give licensees incentives to use spectrum economically and efficiently, allow users to compare the relative values of different uses of spectrum, reduce or eliminate time-consuming regulatory proceedings, and require far less regulatory oversight. Negotiated arrangements also allow greater flexibility in implementing new, emerging technologies and in modifying them over time in response to technological changes and consumer demand.

The Commission has indicated its intention to pursue authorization from Congress to use competitive bidding to select licenses (NPRM, Appendix E, p. 91). AT&T suggests that in the absence of such statutory authority, the Commission implement a modified lottery proceeding. If a lottery is modified to limit the proceeding to applicants who are serious contenders -- and not mere speculators -- for the provision of PCS, then negotiations among the parties could strike an appropriate balance between the operation of marketplace

---

[1] See, In the Matter of Amendment of Parts 0, 1, 2, and 94 of the Commission's Rules to Provide for Interactive Video Data Services, 6 FCC Rcd. 1368, 1371 (1991); See also, In the Matter of Amendment of the Commission's Rules to Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries instead of Comparative Hearings, Report and Order, CC Docket No. 83-1096, 98 F.C.C.2d 175, 185-185 (1984), Memorandum Opinion and Order on Reconsideration, 101 F.C.C.2d 577 (1985), Memorandum Opinion and Order on Further Reconsideration, 2 FCC Rcd. 176 (1987).

forces and the risks of unlimited speculation. (NPRM, ¶ 84). Speculators should also be discouraged because (id.), "large numbers of applications are . . . costly for the Commission to process and could create delays in issuing licenses." For example "[l]otteries for land mobile licenses in the 220 MHz band . . . attracted over 175 nationwide and 58,000 local applicants." (id.) Moreover, "[b]ecause PCS licenses are potentially far more valuable than those in the 220 MHz band, lotteries for PCS are likely to attract even more applications." (id.)

To deter speculation, applicants should be required to meet strict entry requirements and post a significant performance bond, which would be applied toward the development of the licensees' service, before they would be permitted to enter the lottery. Such requirements would further the Commission's objective to deter speculation in the spectrum-licensing process and to award licenses to entities that are both financially well qualified and serious in their intent to introduce new technologies to the market. Only in this fashion can the Commission realize its goal (NPRM, ¶ 7) to "ensure that PCS deployment does not become bogged down in a regulatory morass that may delay the delivery, or even threaten the existence, of PCS."

Lottery "winners" would then gain the exclusive right to obtain in Commission-designated markets a license for any unassigned spectrum and to negotiate with existing licensees for additional spectrum within specific frequency

ranges.[2] Consequently, a modified lottery may establish the appropriate market of qualified license applicants, but it is the licensees' incentives and abilities to meet market demands in a competitive environment that has the greatest impact on the quality and scope of service.

In light of these considerations, the Commission should adopt its "second option" (NPRM, ¶ 85), which would require applicants "to complete financial and technical showings on every application, in order to limit filings to well-financed and experienced applicants." The entry requirements should include a submission of certified data (such as SEC-required reports for publicly traded corporations) demonstrating that an applicant has available and committed financing from a reliable source to construct 60 percent of its proposed system and operate it for three years. Additionally, each applicant should be required to provide evidence that the product or service it plans will satisfy the Commission's use, coordination, and other technical requirements.

Each applicant also should be informed, prior to receiving a ranking based upon the outcome of the lottery, that if it obtains a license and successfully negotiates with incumbents for a portion of spectrum, certain implementation

---

[2] The Commission should also consider limiting individual licensees to a particular initial quantity of spectrum -- perhaps 30 MHz per service area -- until the applicant demonstrates a need for more spectrum for its particular application(s). See Transcript of En Banc hearing testimony of Dale E. Stone, Director of AT&T's Personal Communications Networks, p. 8, 1991 ("Stone Testimony"). See also, discussion on pp. 9-11, infra.

requirements will be imposed. For example, once an applicant has entered the lottery, its filing fees would be non-refundable. The Commission should also impose construction deadlines upon new licensees, which would require them to construct and commence operating their service in each market for which they receive a license within 3 years of licensing. Any proofs of sufficient financial resources should be strictly scrutinized to assure that a change of control will not occur if capital is infused after a license grant.[3] If at any time one or more implementation requirements are not met, the licensee should be required to forfeit its license to the next-ranked applicant without any further regulatory processing, and its bond to the bond holder. The newly licensed applicant also would have to meet the same implementation standards or forfeit its license and development bond.

To further assure success, a market-based approach (NPRM, ¶ 47), whether a modified lottery or a pure negotiation proposal, should also include "a fixed transition period, at the end of which existing users would revert to secondary status."[4] The transition period, during which existing 2 GHz

---

[3] Accord, In the Matter of Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Bands by the Private Land Mobile Radio Services, Notice of Proposed Rule Making, released December 15, 1989, 4 FCC Rcd. 8593 (1989).

[4] The Commission has recently issued a Third Notice of Proposed Rulemaking in ET Docket 92-9, released October 16, 1992, which seeks comment regarding the proper transition period for 2 GHz incumbents. AT&T will file comments on this issue in that proceeding.

licensees could continue to occupy these frequency bands on a co-primary basis with new services, should be as brief as reasonably practicable, because the public will bear an enormous cost if there is significant delay in licensing emerging technologies.[5] For example, the regulatory delay in bringing cellular service to the market caused an estimated $86 billion loss to the United States economy.[6] Moreover, the United States now must operate in an ever more competitive global arena where major industrial rivals are strongly promoting the 2 GHz band as the preferred vehicle for emerging technologies such as PCS, advanced cordless telephones (CT-2 and CT-3) and a pan-European mobile system (NPRM, ¶ 5).[7] Anything other than making this spectrum available as soon as reasonably practicable will severely retard the development and implementation of emerging technologies in the United States. This would be directly contrary to the Commission's

---

[5] The Utilities Telecommunications Council ("UTC") suggestion, discussed by the Commission (at NPRM, ¶ 47), for a 10-year delay before implementing an involuntary relocation program provides no incentive for incumbents to relocate expeditiously, even if both spectrum and financial compensation are available to cover their reasonable transition costs.

[6] See written statement of Dr. Charles L. Jackson, National Economic Research Associates, Inc., before the FCC En Banc Hearing, p. 4, December 5, 1991; see also, Communications Daily, p. 5, November 18, 1991 (discussing NERA study).

[7] For example, the 1992 World Administrative Radio Conference identified the 1.885-2.025 GHz and 2.110-2.200 GHz bands as available for implementation of PCS-type services. In addition, a European Community Directive, adopted by 12 countries, requires each to allocate the spectrum at 1.8-1.9 GHz for PCS. Further, Japan has determined that spectrum at 1.9 GHz shall be for PCS and Singapore, Hong Kong and Thailand also have allocated 1.85-1.99 GHz for PCS.

central purpose in initiating this proceeding, to bring "PCS to the public expeditiously and with the least amount of regulatory delay" (NPRM ¶ 2).[8]

The Commission therefore should allow market incentives to work by encouraging incumbents to negotiate with the winners of the proposed modified lottery process. The Commission should notify the current occupants of the frequency bands subject to this inquiry that they will not automatically receive a license renewal. The Commission should deem expired any current license that is contested and has not otherwise expired in accordance with its terms by January 1, 1997.[9]

Eager to implement new technologies, lottery winners would seek to gain exclusive use of up to the maximum permitted in each market if they are willing and able to pay for it. Incumbents would have the incentive to strike deals promptly, because their licenses would have no value after expiration. Newcomers would have the incentive to pay incumbents' moving costs in order to get them out of the spectrum quickly.[10] In short, marketplace incentives would

---

8 "The FCC's approach to meeting spectrum requirements will be critical to the rapid development of new wireless technologies, the introduction of new services to American consumers and the ability of the American telecommunications industry to contribute to a vigorous economy and compete with global competitors who are poised to lead in providing new and innovative wireless services if we do not." Stone Testimony at p. 2.

9 In order to permit reasonable notice and to allow an initial negotiation period, licenses that would expire before January 1, 1995, should be extended to that date.

10 Alternatively, a potential licensee might approach an incumbent with whom it can operate on a co-primary basis,

(footnote continued on next page)

efficiently assign spectrum for the provisions of new services, without the necessity for detailed regulatory oversight.[11]

II. THE COMMISSION SHOULD ALLOCATE SPECTRUM FOR FIVE 20 MHZ LICENSES AT 2 GHZ FOR PCS SERVICE.

As the Commission, AT&T, and numerous other parties have observed, the extraordinary growth of cellular subscribers is an indication of the significant growing demand for wireless communications.[12] The NPRM (¶ 34) notes, however, that because "of the limited spectrum available for all emerging technologies" the Commission "necessarily must limit the number of potential PCS providers." On the one hand, parceling out too little spectrum among too many licensees would create a market where new services would vie with each other and with existing users for slivers of

---

(footnote continued from previous page)

and the parties could negotiate to share that portion of the spectrum for the duration of the new license. The incumbent would then be able to remain beyond the term of its current license, and the new licensee would gain earlier access to the spectrum. Even if the new licensee were unable to use the frequency on a co-primary basis, it might seek to negotiate and pay appropriately for early, exclusive entry to incumbent's frequency.

[11] See, Stone Testimony at pp. 7-8.

[12] See, Final Acts of the World Administrative Radio Conference, Malaga-Torremolinos, 1992; See also, An Inquiry Relating to Preparation for the International Telecommunication Union World Administrative Radio Conference for Dealing with Frequency Allocations in Certain Parts of the Spectrum, GEN Docket No. 89-554, released June 20, 1991. International competitors have also been actively pursuing spectrum allocation. E.g., "The Economics of Frequency Allocation," organization for Economic Co-operation and Development ("OECD") seminar in Paris, April 27-28, 1992.

spectrum that are incapable of supporting full implementation of innovative offerings.[13] On the other hand, as the Commission notes, the large number of applications for experimental authority to develop and test new technologies in the recent Pioneer's Preference proceeding indicates extraordinary interest and demand in this area.[14]

Thus, the Commission should balance the limited availability of useful spectrum with the need for an environment where as many new entrants as possible may receive an opportunity to compete for licenses in markets across the country. In light of these considerations, AT&T supports the Commission's proposal (¶ 34) "that an allocation that provides sufficient spectrum to support at a minimum three service providers per market will be necessary . . . [and] that innovation could result from the licensing of additional PCS service providers."

To encourage service diversity, reasonable rates, and the other benefits of competition, the Commission should increase PCS licensees' entry opportunities by establishing five service providers for each geographic serving area. Each of these service providers should receive an allocation of 20 MHz of spectrum to ensure enough spectrum to establish a service. Such an allocation scheme should be sufficient "to

---

[13] See, e.g., Wimmer, Communications Lawyer, Summer 1992 at p. 24 (with the launch of CT-2, the United Kingdom provided too narrow a service because it divided up spectrum in the 864-868 MHz band among too many licensees).

[14] See, Report and Order in GEN Docket No. 90-217, 6 FCC Rcd 3488 (1991), recon., 7 FCC Rcd 1808 (1992), pets. for further recon. pending (the "Pioneer's Preference" rules).

ensure a wide and rich range of PCS services that meet consumer needs at reasonable prices."[15]

III. THE COMMISSION SHOULD USE LATA-BOUNDED SERVICE AREAS TO DEFINE THE PCS MARKET GEOGRAPHIC SERVICE AREA

Equal in importance to the number of service providers and the amount of spectrum each licensee should receive is the size of the geographic area within which PCS licensees will operate. To generate an environment where new PCS providers will be able to compete effectively with other more established mobile service providers, the Commission should allow the PCS licensees to offer service in approximately the same geographic market size. If the Commission encourages a level playing field for PCS, then, as the Commission intends (NPRM, ¶ 101), "[s]ervice providers will have a strong incentive to offer attractive services and prices because any customer will have numerous service options from which to choose."

The NPRM (id.) proposes four altenative sizes of license areas: (i) 487 Basic Rand McNally Trading Areas plus Puerto Rico; (ii) 47 Major Trading Areas plus Alaska and Puerto Rico; (iii) the existing 194 Telephone LATAs; and, (iv) Nationwide. Any of these proposed market definitions should thus be sufficient to stimulate competition between new PCS service providers and established mobile service markets,

---

[15] See also, written testimony of American Personal Communications ("APC") to the en banc presented by J. Barclay Jones on December 5, 1992 at p. 7 (two licenses would provide sufficient competition).

while creating the diversity of service offerings which the NPRM (¶¶ 56, 57) seeks to promote.

Although the Commission has suggested (¶ 58) that a nationwide serving area for PCS licensees may offer certain advantages, such benefits -- including nationwide roaming capabilities, nationwide technical standards, and reduction of interference costs -- could also be achieved without sacrificing service providers and diversity. Nationwide licenses would reduce the number of PCS licensees and thereby arguably reduce not only competition, but also the technical experimentation and diversity of service offerings that likely would result from granting more licenses to a greater number of applicants in smaller geographic regions.

Reliance on the 194 existing LATAs as the geographic serving areas for licenses is most reasonably calculated to achieve the Commission's objectives. With 20 MHz of spectrum allocated to each of five licensees in these service territories, customers would be assured of a diversity of PCS providers among the slightly less than 600 total available licenses nationwide. Moreover, licensing LATA-bounded service areas would minimize the need for future potentially costly network rearrangements to facilitate application of customer choice requirements to wireless service providers.[16]

---

[16] Currently pending before the Commission is MCI's petition to extend equal access obligations to cellular providers. See, In the Matter of Policies and Rules Pertaining to the Equal Access Obligations of Cellular Carriers, RM-8012.

By contrast, licensing this spectrum on the basis of Major Trading Areas would create only 141 available licenses, which may allow too few service providers to participate meaningfully in this marketplace. Such a result would deprive customers of the benefits of service innovation and vigorous price competition for PCS service. Conversely, licensing based on the almost 500 Rand McNally trading areas would create far more licenses than the number of potential market entrants; this fragmentation of the geographic licensing process would therefore simply increase the transaction costs and burdens on applicants and the Commission, without meaningfully promoting the Commission's service innovation and price competition objectives.

IV. THE COMMISSION SHOULD INCREASE ITS ALLOCATION FOR SPECTRUM IN THE UNLICENSED BAND, OR ALTERNATIVELY, CREATE A RESERVE OF ANY SPECTRUM NOT IMMEDIATELY REALLOCATED FOR EITHER LICENSED OR UNLICENSED PCS

AT&T supports the Commission's finding that unlicensed product applications deserve an allocation in the emerging technologies band. In particular, AT&T supports the proposal (NPRM, ¶¶ 41-43) to allocate spectrum for unlicensed applications between 1910 to 1930 MHz. Because neither manufacturers nor users of unlicensed spectrum would hold specific spectrum licenses, it is likely that at least some degree of unpredictable and uncontrollable interference will occur. The NPRM (¶ 43), however, notes correctly that "interference between unlicensed spectrum users and existing fixed microwave users" should "be minimized by employing appropriate technical standards and making use of specific portions of the 2 GHz spectrum." To achieve this objective,

the Commission should require unlicensed service providers to adopt specific rules to manage unlicensed applications and to create a satisfactory mechanism to relocate incumbent point-to-point operators. For example, a funding mechanism designed to avoid windfall profits to incumbents, based on fees related to spectrum bandwidth and an independent, private industry advisory council to coordinate any needed relocation could help resolve immediate concerns.[17]

AT&T also urges the Commission to allocate additional spectrum for unlicensed operations. This would further minimize potential interference among users. Unlicensed applications will initially require approximately 40 MHz for high-speed systems and 25 MHz for voice and low-speed data, for a total of 65 MHz. Although the initial proposed allocation of 20 MHz is a good beginning, the allocation is inadequate for the provision of even an initial service and needs to be increased.[18] As the Commission has recognized (NPRM, ¶ 25), "[t]here is [a] steadily increasing consumer and business interest in new mobile services and technologies for numerous, sometimes incompatible,

---

[17] Ultimately, as AT&T showed in its Comments filed in ET Docket 92-9, spectrum for unlicensed applications should be provided clear of existing point-to-point fixed radio services to permit an environment in which relevant equipment may be developed and sold without either undue interference or unnecessary limits on peak output power.

[18] Based on three licensees with 30 MHz each, the Commission (NPRM ¶ 38) proposes that the licensed portion of the 2 GHz PCS spectrum be divided into three 15 MHz frequency block pairs: Channels A - 1850-1865/1930-1945 MHz; B - 1865-1880/1945-1960 MHz; and C - 1880-1895/1960-1975 MHz. Thus, spectrum from 1895-1910 and 1975-1990 MHz has not been assigned.

applications." Thus, even if the initial 20 MHz allocation could be considered adequate, the demand would rapidly outgrow the allocated spectrum, degrading the unlicensed users' ability to provide service. This dilemma could best be resolved by allocating the 15 MHz between 1895 and 1910 for unlicensed applications. This spectrum is currently not targeted for reallocation and is adjacent to that portion of the spectrum already assigned for unlicensed devices. Alternatively, the Commission could create a reserve of any spectrum in the targeted area, not immediately reallocated for either licensed or unlicensed PCS, to meet future PCS growth needs.

CONCLUSION

For the reasons stated above, the Commission should adopt its market-based proposal, modified as described herein, for the allocation of 100 MHz of spectrum at 2 GHz to provide three PCS licensees in LATA-bounded service areas. The Commission should also increase the allocation of spectrum in the unlicensed band, or alternatively, create a reserve of any spectrum not immediately reallocated for either licensed or unlicensed PCS to meet future PCS growth needs.

Respectfully submitted,

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

By: /s/ Francine J. Berry
Francine J. Berry
David P. Condit
Peter H. Jacoby
Sandra Williams Smith

Its Attorneys

295 North Maple Avenue
Room 3244J1
Basking Ridge, New Jersey 07920

Dated: November 9, 1992

CERTIFICATE OF SERVICE

I, Janice Knapp, hereby certify that a true copy of the foregoing Comments of American Telephone and Telegraph Company was served this 9th day of November, 1992, by United States mail, first class, postage prepaid, upon the parties listed on the attached list.

/s/ Janice Knapp
Janice Knapp

November 9, 1992

SERVICE LIST

Gerald S. McGowan
Majorie Giller Spivak
Lukas, McGowan, Nace &
Gutierrez, Chartered
1819 H St., NW, 7th Fl.
Washington, DC 20006
Attorneys for
Dial Page, L.P.

Thomas J. Casey
Jay L. Birnbaum
Simone Wu
Skadden, Arps, Slate,
Meagher & Flom
1440 New York Ave., NW
Washington, DC 20005-2107
Attorneys for
Echo Group, L.P.

Blooston, Mordkofsky,
Jackson & Dickens
2120 L St., NW
Washington, DC 20037
Attorneys for
Freeman Engineering
Associates, Inc.

Lawrence M. Miller
Schwartz, Woods & Miller
Suite 300
The Dupont Circle Bldg.
1350 Connecticut Ave., NW
Washington, DC 20036
Attorneys for
Global Enhanced
Messaging Venture

Metriplex, Inc.
25 First St.
Cambridge, MA 02141

Lawrence J. Movshin
Thelen, Marrin,
Johnson & Bridges
805 15th St., NW
Suite 900
Washington, DC 20005-2207
Attorneys for
Metriplex, Inc.

L. Andrew Tollin
Michael Deuel Sullivan
Wilkinson, Barker,
Knauer & Quinn
1735 New York Ave., NW
Washington, DC 20006
Attorneys for
Mobile Communications
Corporation of America
(MobileComm)

William B. Barfield
Charles P. Featherstun
David G. Richards
1155 Peachtree St., NE
Suite 1800
Atlanta, GA 30367-6000
Attorneys for
Mobile Communications
Corporation of America
(MobileComm)

Matt Edwards
Montauk
Telecommunications Co.
Box 2576
Montauk, NY 11954

Richard E. Wiley
R. Michael Senkowski
David E. Hilliard
Eric W. DeSilva
Wiley, Rein & Fielding
1776 K St., N.W.
Washington, DC 20005
Attorneys for Mobile
Telecommunication
Technologies Corporation
(Mtel)

Mark A. Stachiw, Esq.
PacTel Paging
Three Forest Plaza
Suite 800
12221 Merit Dr.
Dallas, TX 75251

Carl W. Northrop
PacTel Paging
Bryan Cave
Suite 700
700 Thirteenth St., NW
Washington, DC 20005

Roger Linquist
Chairman & CEO
Pagemart, Inc.
6688 N. Central Expressway
Suite 900
Dallas, TX 75206

Jeffrey Blumenfeld
Glenn B. Manishin
Blumenfeld & Cohen
1615 M St., NW, Suite 700
Washington, DC 20036
Attorneys for PageMart, Inc.

Matt Edwards
President
Skycell Corporation
116 Gray St., Clemens Ctr.
P.O. Box 1259
Elmira, NY 14902

Judith St. Ledger-Roty
Lynn Shapiro
Kathleen Kirby
Reed, Smith, Shaw & McClay
1200 18th St., NW
Washington, DC 20036
Attorneys for Paging
Network, Inc.