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

ORIGINAL

In the matter of)
)
Amendment of the Commission's)
Rules To Establish New)
Personal Communications)
Services)

Gen. Docket No. 90-314
E.T. Docket No. 92-100

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COMMENTS OF THE
UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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EXECUTIVE SUMMARY

In its Notice of Proposed Rulemaking, the Commission proposes to allocate 110 MHz of proposed emerging technologies spectrum to competitive Personal Communications Services ("PCS"). The Department believes that by allocating 110 MHz, by appropriately dividing that spectrum, by awarding the PCS licenses to new entrants into the mobile radio telecommunications business, and by temporarily precluding consolidations of PCS and cellular license blocks, the Commission will promote the competitive development of these markets.

The Department offers the following observations in an effort to assist the Commission in developing a competitive environment for PCS services:

1. The Commission should endeavor to create a competitive market structure for radio telephone services, including cellular and PCS. If this can be accomplished, the Commission should allow market participants to determine for themselves the types of services they will provide, subject to the discipline of competition.

2. The Commission should endeavor to assure that each PCS licensee will have enough usable spectrum to be able to provide mobile services efficiently and to compete with incumbent cellular operators. The effect of allocating too little spectrum might be to increase PCS operators' costs to the point where they could not offer PCS services at competitive prices. Therefore, as the Commission recognizes, to foster effective competition individual PCS licensees should receive spectrum

allocations competitively comparable to the 25 MHz now assigned to the two cellular operators.

The Commission should decide how much of the proposed 110 MHz allocation each licensed user is likely to need to be an efficient competitor, and divide up the available spectrum into as many usable blocks as possible, reserving some spectrum for unlicensed use. The Commission's proposal to create three 30 MHz PCS licenses per geographic area, and to allocate 20 MHz to unlicensed use, appears to the Department to be a reasonable approach.

3. Licensing PCS by smaller service areas, coterminous with cellular MSAs and RSAs, would appear to create the greatest possibility that the licenses would come to be held by operators with the intention, financial resources and expertise to develop services that meet what might be quite varied local consumer demand. Moreover, by starting with smaller service areas, but permitting firms to consolidate service areas by acquiring additional licenses in non-overlapping areas and to integrate service areas, the Commission will facilitate any market adjustment needed to achieve efficient service areas. There should be no limit on the acquisition of licenses in non-overlapping service areas, and cellular licensees (including those affiliated with LECs) should be permitted to acquire PCS licenses outside their cellular service areas.

4. The Department fully supports the Commission's intent to provide the opportunity for increased competition and entry in the provision of mobile communications services. Given that goal, and given the Commission's tentative decision to allocate

110 MHz to PCS, common ownership of any PCS and cellular licenses within the same geographic market could stifle innovation potential or other aspects of competition without creating substantial offsetting efficiencies. PCS markets are likely to be characterized by high concentration levels and entry barriers, making additional consolidations problematic. Under these circumstances, a temporary rule prohibiting such common ownership would be reasonable.

The Department believes that such conditions exist, and that a temporary prohibition would help permit the market to develop competitively. The Commission should revisit consolidation issues in a short period of time (e.g., four years) after market forces have been given an opportunity to determine how much demand there is for PCS services and how many competitors that demand will support. The Commission could then decide whether there is any need to continue the rule.

5. LECs should be permitted to acquire PCS licenses where their affiliates do not hold cellular licenses, so long as they provide interconnection to competing PCS and cellular licensees that is no less favorable than the interconnection they provide to their own PCS or cellular affiliates. Whether or not LECs offer cellular or PCS services, the Commission should ensure that LECs provide PCS licensees with the interconnection that is reasonable for that PCS system and no less favorable than that offered by the LEC to any other customer or carrier, including itself. Notice ¶ 101.

6. The Commission should allocate PCS licenses by auction, if statutory authority can be obtained quickly. If such

authority cannot be obtained quickly, licenses should be distributed by lottery, without efforts by the Commission to skew the lottery towards any particular applicants. An unrestrained secondary market in PCS licenses (subject to any limits on multiple holdings and the operation of the antitrust laws) should be allowed to operate to redistribute the licenses to their most highly valued uses, whether they are initially distributed by lottery or by auction.

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COMMENTS OF THE
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I. INTRODUCTION

In a Notice of Proposed Rule Making and Tentative Decision ("Notice"), released August 14, 1992, the Federal Communications Commission seeks comprehensive comment on the appropriate structure, licensing and regulatory treatment of Personal Communications Services ("PCS"). The Commission seeks comment on, among other issues, the number of licenses to be issued, the size of the spectrum block to be assigned to each licensee, whether license territories should be national, regional or local, what interconnection rights licensees should have, how the licenses should be distributed, and whether certain persons, particularly incumbent cellular and local exchange carriers, should be eligible to acquire licenses or spectrum.

The Commission has determined that PCS should be provided in a competitive environment, and the issues on which the Notice seeks comment raise questions of competition analysis and

policy. The United States Department of Justice ("Department"), one of the Federal agencies responsible for enforcing the antitrust laws and promoting competition,¹ has participated in prior Commission proceedings involving the role of competition in radio telecommunications,² and offers these comments for the Commission's consideration as it attempts to develop a competitive environment for PCS services.

II. DISCUSSION

The Commission proposes to allocate 110 MHz of proposed emerging technologies spectrum to competitive mobile radio telephone services, characterized as PCS.³ The Department

¹ The antitrust laws, including the Sherman Act, 15 U.S.C. § 1 et seq., and the Clayton Act, 15 U.S.C. § 12 et seq., generally prohibit agreements that restrain competition, transactions (such as mergers) that tend to restrain competition or create monopolies, and the acquisition or use of monopoly power. The submission of these comments does not affect the Department's independent enforcement responsibilities. See, e.g., United States v. RCA, 358 U.S. 344, 350 n.18 (1959).

² E.g., Reply Comments of the U.S. Department of Justice, In re Bundling of Cellular Customer Premises Equipment and Cellular Service, CC Docket No. 91-34 (filed June 19, 1991); Comments of the U.S. Department of Justice, In re Petition for Rule Making Concerning Proposed Changes to the Commission's Cellular Resale Policies, CC Docket No. 91-33 (filed Mar. 20, 1991).

³ The Department does not question the Commission's proposed determination that allocating this spectrum to PCS is an appropriate use of the spectrum or its proposed subdivision of that spectrum. We lack the Commission's technical expertise and defers to its judgment on this issue, and our comments are limited to competitive and economic policy considerations.

Nor does the Department question in this proceeding whether 220 MHz is enough spectrum for emerging technologies. The Department has supported market allocation of the spectrum in the past. See Comments of the U.S. Dept. of Justice, In re Comprehensive Policy Review of Use and Management of the Radio Frequency Spectrum (N.T.I.A. Feb. 23, 1990).

believes that by promptly allocating 110 MHz to PCS, by dividing that spectrum in a manner designed to facilitate competition, awarding the PCS licenses to new entrants into the mobile radio telecommunications business, and by temporarily precluding consolidations of PCS and cellular license blocks, the Commission will promote the competitive development of these markets.

A. PCS and Competitive Markets

1. The Preference for Market Solutions. In markets that are functioning competitively, many providers independently will seek profitable opportunities to serve potential customers. The public interest is best served by permitting buyers and sellers to determine between themselves what services they wish to obtain and provide, and at what prices. Absent market failure, independent decisions by buyers and sellers will lead to more output, lower prices and a greater level of innovation than would be expected under intrusive economic regulation. The antitrust laws are designed to preserve competition in unregulated markets.

Radio-based markets, however, differ from most competitive markets in one respect: the physical (and regulatory) scarcity of the market's essential resource, the right to use channels of the electromagnetic spectrum. The Commission has concluded that:

The most desirable allocation [of spectrum] to accomplish this goal [of service diversity at lowest cost] would be one large enough to accommodate all interested in providing PCS services. Such an allocation would allow market forces to determine the optimal number of service providers. In view of the limited spectrum available for all emerging technologies, however, we necessarily must limit the size

of any PCS allocation; this in turn will limit the number of potential PCS providers.

Notice ¶ 34. The Commission must therefore determine, by some means, the use to which that spectrum is put, and which firms shall be permitted to use it. Communications Act § 303, 47 U.S.C. § 303.

That does not mean that the Commission must regulate that use in detail. If enough firms can enter PCS businesses, the operation of market forces expressed in competition and entrepreneurial innovation, rather than regulation, can best drive licensee decisions as to service offerings, price and innovation.⁴

The Department believes that the spectrum to be allocated should be distributed in a manner most likely to give rise to competitive markets. If that is accomplished, the participants in those markets can and should be left to their own business judgment in determining the services they believe they can sell and seeking customers for those services. If they succeed, they will reap the rewards of the market; if they fail, the spectrum could be acquired by another entrant with other ideas or means for profitable services.⁵

⁴ The Department agrees with the Commission that competition should answer these questions whenever possible. See Notice ¶ 2 ("in licensing mobile services, the Commission has squarely placed its faith in competitive markets and service flexibility"); ¶ 13 ("an adequate amount of spectrum should be made available for PCS to foster the development of innovative and competitive markets").

⁵ The Department acknowledges that there may be independent public policy reasons, such as the protection of public health and safety (e.g., radio frequency hazards, see Notice ¶¶ 131-32), that at times will justify regulation.

2. Competition Between PCS and Cellular. The licensing of PCS holds out great promise to introduce substantial competition into telecommunications markets. The availability of additional spectrum, which might be built out using more efficient digital technology, will vastly increase the capacity of spectrum licensees to provide radio telecommunications, which in a competitive market should result in lower prices for air time and improved service offerings. If mass market strategies are adopted by licensees seeking more customers, lower prices for handsets and other customer premises equipment ("CPE") might result as well.

The information we have gathered to date suggests that new PCS providers will have the ability, if they choose, to compete with incumbent cellular telephone operators, and incumbent cellular operators likewise will have the ability to compete with the services that might be offered by new PCS licensees.⁶ There does not appear to be any substantial difference between the services that new PCS providers will be technologically able

⁶ As described in this proceeding by the chairman of McCaw Cellular Communications, Inc., cellular "is no longer just a car phone technology service, offering city-wide or regional service; it has evolved, in a short time, to a portable personal communications service." Responses of Craig O. McCaw to Supplemental Questions of the Federal Communications Commission Concerning Personal Communications Services, at 3 (Jan. 15, 1992) (Gen. Docket 90-314). Likewise, Bell Atlantic has advised the Commission that it has put microcells into commercial service, and is "incorporat[ing microcells] aggressively into [its] cellular network Through the integration of a microcell network with the existing macrocell network, customers enjoy many PCS features." Bell Atlantic Request for Pioneer's Preference, May 4, 1992, at 14-15 (Gen. Docket No. 90-314).

to offer and the services that cellular operators will be technologically able to offer. Both will have access to spectrum, and access to interconnection with local and interexchange telephone networks. Both will apparently be seeking to serve their customers with ever smaller and more portable handsets. All providers might not offer identical services; while some providers may seek to provide services with all the features of traditional cellular service (and more), other providers may seek to provide a lower-cost, lower-functionality service.⁷

The Commission has found that current cellular markets, in which two firms are the exclusive providers of available service, might not perform in an ideally competitive manner.⁸ The situation is exacerbated by a barrier to entry into radio services, the unavailability of additional spectrum licenses. A market with five or more firms in direct competition, however,

⁷ One aspect of cellular service, fast handoff for automobile traffic, may or may not be offered by PCS providers. In the Department's view a competitive market, rather than the Commission, should determine whether a particular service is desirable and how and by whom it should be provided. See pp. 7-10 below.

⁸ Both the Commission and the General Accounting Office have expressed the view that cellular service markets, in which only two facilities-based service providers are present in any particular area and in which entry is not now possible, may not be fully competitive. Report and Order, In re Bundling of Cellular Customer Premises Equipment and Cellular Service ¶ 11, CC Docket No. 91-34, 8 FCC Rcd 1732 (released June 10, 1992) ("Cellular Bundling"); Report to Hon. Harry Reid, U.S. Senate, Concerns About Competition in the Cellular Telephone Service Industry (Gen. Acctg. Ofc. 1992).

would be more likely to provide competition than the present system.

B. Choosing Between Competition and Regulation

If enough firms can enter and compete in PCS markets, there should not be any need to "choose" or "balance" between competition and regulation. The Commission identifies four factors that it suggests should be "optimize[d] and balance[d]" in licensing PCS: (1) "universality;" (2) "speed of deployment;" (3) "diversity of services;" and (4) "competitive delivery." Notice ¶ 6. In our view, the Commission should attempt to promote the fourth factor -- competitive delivery of PCS services. If a competitive market structure is promptly achieved, the market will itself establish the economically efficient levels of universality, speed of deployment and diversity of services. If, however, the Commission were to favor these other objectives at the expense of a competitive market, it may sacrifice both competition and diversity.

In a competitive market, it should be expected that licensees will build out PCS systems at the pace at which they can persuade investors to finance them. There is no reason to suspect that that pace will not be "fast enough," or that there will be a lack of interest in investing in PCS -- quite the opposite. Given the investment markets' apparent interest in PCS, there is no reason to try to "tip the scale" towards particular deployments of PCS that would be faster than investors believe to be appropriate. Moreover, attempts by the Commission to arbitrarily expedite or otherwise influence market

development may have unanticipated adverse consequences for competition.⁹

The Department fully concurs in the Commission's goal "to allocate sufficient spectrum and establish rules to allow the widest possible range of [PCS] services," Notice ¶ 28. We share the Commission's

belief that different PCS providers may want to provide differing levels of service. Some may seek to provide a very simple and inexpensive service one step up from cordless telephone service, with no ability to roam between different service providers or service areas and with limited or no handoff capabilities. Others may want to provide a level of service equalling or surpassing that currently offered by cellular carriers.

Notice ¶ 100.

To achieve that end, the market must be structured to permit several competitors, and those competitors (the PCS and cellular licensees) must have the freedom to design their service offerings to offer a combination of functionality and cost -- and therefore price -- that, in their profit-seeking judgment, is most likely to attract customers. By contrast, regulatory limits may inhibit in unforeseen ways development and deployment of PCS technology or lock in inferior uses of the spectrum. The Commission should therefore avoid specifying in

⁹ The Department appreciates the Commission's concerns that PCS should be licensed without the delays that occurred in the cellular licensing process, and the Department strongly shares those concerns. The Department believes, however, that the licensing process most likely to promote a competitive market structure -- MSA/RSA licenses distributed by auction or, if statutory authority is not forthcoming, by postcard lottery -- is also likely to be the most expeditious. See pp. 33-34 below. These processes need not delay implementation of PCS.

detail the features and functions that PCS licensees must provide.¹⁰

The Commission should also be cautious in imposing regulatory constraints on either cellular or PCS licensees that would impede their ability to compete with each other, or would constrain the service offerings that an individual licensee, in its own judgment, believed would be a profitable opportunity. See Notice ¶¶ 69-70. The Commission should not, for example, impose on PCS licensees power and antenna height limitations that are more restrictive than those allowed to cellular operators. Notice ¶ 114. Nor should the Commission subject PCS licensees (or their competitors holding cellular licenses) to Federal rate regulation. See Notice ¶¶ 95-97.

The Commission's requirement that cellular operators continue to support analog CPE users may also be an issue better left to competition.¹¹ As PCS providers compete for the

¹⁰ Requiring intersystem operability to facilitate roaming, for example, may increase the cost and therefore the price of certain PCS services, by precluding individual licensees from adopting a technology that might be less expensive than that mandated by a common standard. Some PCS providers may target less peripatetic consumers by offering less sophisticated -- and less expensive -- PCS services, and should not be constrained from making such mass market offerings. If justified by market conditions, others could offer more sophisticated, and more expensive, services. In either case, it would be market forces rather than governmental fiat that shaped service offerings. On the basis of information currently available, the Department thus fully concurs in the Commission's tentative decision not to require intersystem operability. Notice ¶ 130.

¹¹ The Commission now requires that cellular operators continue to support mobile units using the industry standard analog radio interface ("AMPS"), but requests comment on whether that requirement should be maintained. Notice ¶ 70. Digital radio technology may increase substantially the capacity of the 800 MHz spectrum.

customers of incumbent cellular operators, those cellular operators may believe that it is in their own interest to retain the analog customer -- either by continuing to provide analog service or by converting that customer to digital service on terms attractive to the customer and competitive with comparable PCS services. See Cellular Bundling ¶¶ 19-20 (by permitting cellular operators to bundle dual mode digital-analog CPE and cellular service, operators can reduce the customer's cost of converting to digital CPE and increase its use).¹²

C. Number and Size of Licenses

As noted above, and as the Commission also recognizes (Notice ¶ 35), the Commission's key objective in determining the number and size of licenses should be to allow enough firms to enter the radio telecommunications business on a large enough scale to be competitive with each other and with the incumbent

¹² If the incumbents choose not to increase capacity by converting to digital, they should not be given additional spectrum capacity out of a misplaced sense of fairness. See Notice of Proposed Rulemaking, In re Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, ¶ 10, 2 FCC Rcd 6244 (released Oct. 15, 1987) (Gen. Docket No. 87-390) (relaxing technology rules to permit, e.g., deployment of digital cellular radio rather than allocating additional spectrum). In competitive markets, incumbents do not receive protection from new and more efficient technologies, and should not receive such treatment here. Most important, the Commission should not create perverse incentives that would lead incumbent cellular operators to migrate to digital technology more slowly than market forces would otherwise dictate.

cellular operators. As the amount of spectrum available is limited -- both physically and by regulation -- the Commission must balance the entrants' spectrum needs against the desirability of allowing as many entrants as practicable.¹³

Competitive markets serve consumer interests by providing market discipline that tends to drive firms to lower their costs, while driving prices down towards costs. In PCS markets, however, the scarcity of spectrum makes it more difficult to determine the best means of driving prices down towards costs. Granting larger spectrum allocations might result in lower costs if there are significant economies of scale or scope, but the corollary of fewer firms might lead to less pressure on those few firms to drive prices down toward costs. Conversely, licensing more firms might result in excess profits being competed away, and prices may tend to approach costs, but might sacrifice certain economies of scale or scope that might be attainable if larger amounts of spectrum were allocated to each licensee.

How should the Commission strike the balance? The following questions may illuminate this issue:

1. Is the spectrum allocation large enough so that a mobile service can be provided, with an existing or foreseeable

¹³ To the extent that some PCS services can be provided on an unlicensed, non-interference basis, that should certainly be encouraged. The Department fully supports the Commission's tentative decision to allocate 20 MHz of spectrum to unlicensed service providers using a variety of technologies. Notice ¶¶ 42-45. For example, LECs and others could use this spectrum to provide wireless enhancements to wireline services.

technology, in sufficient volume to make it profitable to build the system? The inquiry should not necessarily be limited to technical feasibility; a small allocation of spectrum (e.g., 10 MHz) may not be economically viable if the necessary handsets are prohibitively expensive compared to CPE usable by customers of incumbent cellular operators. The Commission should also consider whether there are broadband technologies or applications (e.g., mobile high-speed data or video) that should be accommodated in the 1.8 GHz band, or whether these technologies should be located elsewhere (e.g., in the remaining 110 MHz of proposed emerging technologies spectrum).

2. Is the allocation large enough to provide the licensee with enough spectrum that will be usable reasonably soon? The spectrum to be assigned to PCS is now in use, in many places, for microwave transmission by users of various types, and the Commission has indicated that these users may not be required to relocate to other frequencies for as much as ten years.¹⁴ As the Commission recognizes, an allocation of 30 MHz might not, in all areas, provide a PCS licensee with any significant amount of immediately usable spectrum, much less an amount equivalent to that held by cellular operators. Notice ¶ 35. The Commission should consider, in determining the size of licenses, how much spectrum needs to be licensed to give most licensees the

¹⁴ First Report and Order and Third Notice of Proposed Rule Making, In re Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies ¶ 27, ET Docket No. 92-9 (released Oct. 16, 1992) ("Redevelopment Report").

functional equivalent of 25 MHz of usable spectrum, the amount of spectrum authorized to existing cellular licensees, in the near term (e.g., within three years of the grant of the license).¹⁵

This need to provide relatively larger spectrum allocations to PCS licensees could be reduced by setting a relatively shorter transition period for microwave users. The Commission's proposed procedures for involuntary relocation (Redevelopment Report ¶ 24) are likely to assure that PCS licensees bear the cost of the move, and that microwave users are not put to any significant hardship or cost. By requiring the PCS licensee to pay the microwave user's relocation costs, the Commission assures that the microwave user will only be relocated if the cost of its moving is less than the PCS user's anticipated profits from operating on that channel. Thus, the Commission's involuntary relocation procedures should lead to an efficient outcome.¹⁶

By setting a short transition period (e.g., three years), the Commission will permit PCS services to be introduced relatively promptly and without imposing unnecessary costs on PCS providers -- while at the same time assuring that microwave

¹⁵ If a PCS licensee is unlikely to have much usable spectrum in its service area by the time its system is built, the licensee may be forced to delay building the system until the spectrum is cleared -- particularly if the licensee is unable to persuade investors or lenders that it will have revenues to recover the cost of building.

¹⁶ The Department does not intend, in these Comments, to express any views on the relative merits of accommodating fixed versus mobile services in the 1.8 GHz band.

users do not bear the costs of the introduction of PCS. The Commission can then allocate relatively less spectrum to individual PCS licensees, and create relatively more licenses.

3. Does the allocation give the PCS licensee sufficient spectrum to compete with the incumbent cellular operators? The Commission intends -- as it should -- that cellular and PCS licensees should be able to compete with each other. The Commission should be careful that the PCS licensing scheme does not artificially inflate PCS licensees' costs relative to cellular licensees' costs. If PCS licensees receive insufficient allocations of spectrum, their costs may be increased relative to cellular operators, and their competitive significance constrained.

If these and other considerations indicate that 20, 25 or 30 MHz appears to be the proper amount of spectrum for a particular license, the Commission should accordingly allocate as many licenses as available spectrum permits (e.g., five 20 MHz licenses, or four 25 MHz licenses, or three 30 MHz licenses).¹⁷ From the information now available to the Department, the Commission's tentative decision to allocate three licenses of 30 MHz each appears to the Department to be reasonable. From a competition perspective, that allocation

¹⁷ If the comments by potential PCS providers indicate a significant interest in small blocks of spectrum, the Commission might consider offering licenses of various sizes, e.g., three licenses of 30 MHz and one license of 10 MHz, to open the market to those firms that believe they can use smaller blocks. See Notice ¶ 61.

would create the possibility of at least five competitors in each service area, (including the two existing cellular licensees), with the possibility of additional competition from entrants obtaining special mobile radio ("SMR") licenses.

The Commission should not be unduly concerned, at the initial allocation stage, that it might create too many licenses out of the 110 MHz it has proposed to allocate to PCS, so long as the spectrum allocated to each licensee is sufficient. If more licenses are issued than systems are built (because, for example, entrepreneurs cannot persuade investors that a given area can support more than a certain number of PCS systems), the existence and availability of the remaining unused licenses creates the competitive constraint of potential entry, which will tend to encourage competition among the incumbents. (This constraint would be lost if the unused licenses can be acquired by the incumbents, as noted above.) To the extent that spectrum remains unused for a prolonged period of time, the Commission would retain the ability to allow consolidation or allocate it to other uses. The Department thus strongly disagrees with the suggestion of commenters that "the number of licensed providers should be limited due in part to the cost of developing a PCS infrastructure." Notice ¶ 35 & n.26.

D. Geographic Scope of Licenses

1. General Considerations.

The Commission requests comment on whether PCS should be licensed nationally, regionally (e.g., by 49 Major Trading Areas ("MTAs")), or locally (e.g., 487 Basic Trading Areas ("BTAs")). Notice ¶ 60. The Department believes that licensing by the 734

cellular Metropolitan and Rural Service Areas ("MSAs" and "RSAs") is preferable,¹⁸ although there may also be advantages in adopting larger license areas that more closely approximate the current service areas of cellular carriers. We do not currently believe that the arguments for national licensing justify that approach; an approach that could severely limit the total number of firms nationwide that can enter PCS businesses and thereby retard the development of innovative and diversified PCS services.

The Commission appropriately notes that the effective operating service areas of current cellular systems are substantially larger than the original cellular MSAs and RSAs. The Commission observes that the consolidation of cellular licenses "seems to have been driven by the greater economies of scale and scope in larger cellular operations. However, high transaction costs have been incurred in achieving these economies." Notice ¶ 57.

¹⁸ For example, the Washington, D.C. metropolitan statistical area includes the District of Columbia, five counties in Maryland (from Frederick to Charles), and five counties in Virginia (from Loudon to Stafford). (The FCC modified some metropolitan statistical areas in its initial designation of Metropolitan Service Areas.) The Washington Basic Trading Area includes the District of Columbia, seven counties in Maryland (roughly from Frederick to St. Mary's), and eight counties in Virginia (as far south as Culpepper). The Washington, D.C. Major Trading Area includes the District of Columbia, the entire State of Maryland, 22 counties in Virginia, five counties in West Virginia, and two counties in Pennsylvania. There are nine Basic Trading Areas (Washington, Salisbury, Baltimore, Hagerstown-Chambersburg-Martinsburg, Cumberland, Harrisonburg, Charlottesville, and Fredericksburg) within the Washington MTA.

In the Department's view, these observations are relevant to, but not dispositive of, the question of the appropriate PCS license area size. The size of current cellular service areas might be the best available indicator of the likely efficient size of PCS service areas, but that indicator may be misleading, for reasons indicated below and others that might not be known or knowable.¹⁹

2. Nationwide Licenses

The Department believes, based on the information available to it, that the Commission should not award nationwide PCS licenses. The Commission suggests, without endorsing, the following purported justifications for national licenses: avoiding regulatory and transaction costs associated with consolidation of service areas, facilitating roaming, "allow[ing] licensees to tailor their systems to the natural geographic dimensions of PCS markets," reducing interference and encouraging the adoption of technical standards. Notice ¶¶ 58, 60. The Department believes that these objectives, to the extent that the market determines that they are desirable or

¹⁹ Many of the transaction costs that concern the Commission (Notice ¶ 57 & n.41) appear to us to be the consequence of a competitive market for licenses, which should be encouraged. The transaction costs of finding appropriate service areas is for the most part unavoidable. Regulatory transaction costs, such as costs incurred by the Commission and by parties' applications to the Commission, could and should be minimized by making licenses freely transferable (subject only to restrictions on holding multiple licenses in a single license area, discussed at pp. 23-29 below).

appropriate, can be achieved without awarding national licenses at the initial period in the development of PCS.

Awarding the initial PCS licenses on a national basis severely limits the total number of firms that could enter the business. If so limited in number, those firms (under the assumptions of the Notice) would either have to raise very large amounts of capital or limit the geographic and service scope of their initial offerings. Granting smaller licenses will increase the number of potential competitors (and indeed innovators) and, by decreasing the capital costs of entry, might facilitate the development of niche services. If the Commission were confident that the national PCS markets would be more efficient than other markets, or that the incremental costs of subsequent consolidation and other actions needed to secure the development of the business outweighed the benefits of initially allocating smaller geographic licenses, a national license approach would not be unreasonable. The Department, however, is not aware of sufficient evidence to support such a conclusion at this time.

We do not believe that the goal of intersystem operability is a sufficient justification for nationwide licensing. Presumably a nationwide licensee would be likely to use the same technology (particularly the same common radio interface) throughout its system, and would not need to conform to standards adopted by the industry. But we do not believe that customers' desires for universal portability of mobile stations requires -- or is even substantially facilitated by -- a nationwide license. We do not denigrate the social advantage of

national portability; we simply believe that if there is sufficient demand for it, local and regional firms are likely to create nationwide interoperable networks based on private (or, if necessary, government) standards. If customers' demand for roaming services is sufficient, there is no reason to assume that the market could not provide it (as the cellular market has demonstrated). Other customers, however, might prefer lower-cost service that does not offer that feature; PCS licensees should be free to pursue those customers. In either case, based on the information available to the Department, there does not appear to be any reason to assume at this early stage of PCS development that the market will not be able to accommodate consumer needs without nationwide licenses.²⁰

3. Regional/Local Service Areas

While some considerations may tend to favor awarding licenses on a regional basis,²¹ the Department currently leans toward smaller license areas. We will continue to evaluate the information submitted in this proceeding on this issue.

There are several reasons to question whether the "true" efficient geographic size of PCS service areas would be comparable to current cellular service areas. The development

²⁰ If awarding national licenses had the practical effect of forcing the Commission to hold comparative hearings (because of the high value of the few licenses), the protracted nature of such hearings could substantially delay the development of PCS.

²¹ In particular, the Department is not unmindful of either the ten years first-mover advantage that incumbent cellular systems enjoy or the transaction costs of consolidation.