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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993	)	WT Docket No. 04-111
	)	
Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services	)	

NOTICE OF INQUIRY

Adopted: February 24, 2004 **Released: March 24, 2004**

Comment Date: April 25, 2004
Reply Comment Date: May 10, 2004

By the Commission: Commissioners Abernathy and Copps issuing separate statements.

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I. INTRODUCTION

1. In 1993, Congress created the statutory classification of Commercial Mobile Services[1] to promote the consistent regulation of similar mobile radio services.[2] At the same time, Congress established the promotion of competition as a fundamental goal for Commercial Mobile Radio Services ("CMRS") policy formation and regulation. To measure progress toward this goal, Congress required the Commission to submit annual reports (*"CMRS Reports"*) that analyze competitive conditions in the industry.[3] This *Notice of Inquiry* (*"NOI"*) solicits data and information in order to evaluate the state of competition among providers of CMRS for its Ninth Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services (*"Ninth Report"*). The statute requiring the Commission to submit annual reports providing an analysis of competitive market conditions with respect to CMRS stipulates that this analysis shall include, among other things, "an analysis of whether or not there is effective competition."[4] To this end, previous *CMRS Reports* have presented a variety of standard indicators commonly used for the assessment of competitive market conditions, including the number of market participants, developments in carriers' pricing plans, service offerings, technology deployment, consumer churn, pricing data, subscriber growth, usage, and the diffusion of product innovations. For the *Ninth Report* the Commission proposes to enhance its analysis by restructuring the presentation of the various indicators of the status of competition to conform to a framework that groups such indicators into four distinct categories (A) Market Structure, (B) Carrier Conduct, (C) Consumer Behavior, and (D) Market Performance.[5] The analysis of market performance will evaluate competitive conditions in the CMRS industry from the consumer's point of view, including both personal and business users. In particular, the analysis of market performance will focus on the benefits to consumers of effective

[1] The term "commercial mobile service" is defined by the Communications Act of 1934, as amended ("the Act"), as "any mobile service ... that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by the Commission." Communications Act § 332(d)(1), 47 U.S.C. § 332(d)(1). "Mobile service" is defined at Section 3 of the Act. Communications Act § 3(27), 47 U.S.C. § 153(27). The term "commercial mobile service" came to be known as the "commercial mobile radio service" ("CMRS"). 47 C.F.R. § 20.3.

[2] The Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6002(b), amending the Communications Act of 1934 and codified at 47 U.S.C. § 332(c).

[3] 47 U.S.C. § 332(c)(1)(C).

[4] 47 U.S.C. § 332(c)(1)(C).

[5] The Commission notes that the proposed approach is broadly consistent with the methodology for the assessment of telecommunications competition outlined in a paper issued by the Organization for Economic Cooperation and Development ("OECD") (*Indicators for the Assessment of Telecommunications Competition*, Organization for Economic Cooperation and Development, Apr. 24, 2002); the guidelines for conducting effective competition reviews issued by Office of Telecommunications (*"OFTEL"*), the national telecommunications regulatory authority in the United Kingdom (*Implementing OFTEL's Strategy: Effective Competition Review Guidelines*, OFTEL, August 2000); as well as the methodology underpinning the Horizontal Merger Guidelines issued by the U.S. Department of Justice and the Federal Trade Commission (U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, 57 Fed. Reg. 41557 (Apr. 2, 1992, as revised Apr. 8, 1997) (*"DOJ/FTC Guidelines"*).

competition such as lower prices, higher quality, greater variety, and more rapid innovation. A key premise of the proposed framework is that market structure, carrier conduct, consumer behavior and the interrelationships among these categories are important determinants of consumer outcomes.

2. Based on an overall assessment of the indicators that the Commission considered, the *Eighth Report* concluded that there is effective competition in the CMRS market.[6] These indicators included the nature and number of market participants, the geographic extent of service deployment, technological improvements and upgrades, price competition, investment, usage patterns, churn, subscriber growth, and product innovations, among other things.[7] The *Eighth Report* stated that 95 percent of the U.S. population has three or more different operators offering mobile telephone service in the counties in which they live and 83 percent have a choice of 5 mobile telephone providers.[8] Further, the Commission found that the price consumers pay for mobile telephony service continued to fall, while subscribership increased.[9] In addition, innovative and enhanced services such as advanced wireless services and larger digital footprints were introduced. These metrics were the basis of the Report indicating that CMRS carriers have no guarantee of maintaining their market share, and that customers are able to change providers if a carrier attempts to raise rates or diminish service quality.[10]

3. In this proceeding, the Commission seeks to update the indicators of competition for its next report to Congress and to assist in determining if there is still effective competition in the CMRS market. In its ongoing effort to improve its information gathering and competitive analysis, the Commission issues this *NOI* to solicit detailed, comprehensive, and independent data for the *Ninth Report* and to augment information from the Commission and publicly available sources. The Commission requests data that will allow us to evaluate the interrelationships among market structure, carrier conduct, consumer behavior, and market performance in order to determine whether there is still "effective competition" among providers of CMRS. The Commission invites comment on the new analytic framework proposed to assess the state of competition among providers of CMRS in the *Ninth Report*. As will be discussed in more detail later in this *NOI*, the Commission seeks the following data and ask commenters to address the following general questions:

- The Commission asks for comment on "what is effective competition?" and which indicators are useful to determine whether there is effective competition among providers of CMRS.
- The Commission seeks comment on what metrics are available that will give us greater insight into the performance of the CMRS industry. The Commission is particularly interested in gathering accurate and reliable information on the number of subscribers, penetration rates, usage, average price per minute, quality of service, pricing trends, and profits, and whether these metrics vary between urban and rural areas as well as among different demographic groups.
- The Commission seeks comment on how the metrics pertaining to the CMRS industry's structure, carrier conduct, consumer behavior, and market performance vary across different geographic areas, in particular between rural and urban areas? If so, how?

[6] Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Eighth Report*, 18 FCC Rcd 14783, 14787 ¶ 5 (2003) ("*Eighth Report*").

[7] *See Eighth Report*, 18 FCC Rcd at 14791, ¶ 12.

[8] *See Eighth Report*, 18 FCC Rcd at 14823, ¶ 84.

[9] *See Eighth Report*, 18 FCC Rcd at 14813-14, 14827, ¶¶ 59, 90.

[10] *See Eighth Report*, 18 FCC Rcd at 14786, ¶ 4.

- The Commission seeks comment on how barriers to entry (e.g. access to sufficient spectrum, cost of capital, first mover advantages and siting cell towers) affect the industry's market structure. The Commission seeks comment on which entities compete to provide CMRS services, the extent of deployment of CMRS services, and whether the same types of services are available in all of a carrier's service areas.
- The Commission seeks comment on the most significant changes or developments in pricing plans, advertising and marketing, capital expenditures, and new technology deployment during the past year.
- The Commission seeks comment on significant changes and developments have occurred in the provision of wireless data and Internet services, both mobile and nomadic,[13] since the publication of the *Eighth Report*.
- The Commission seeks data on current and prospective deployment and usage of wireless high-speed internet access services through mobile and portable computing devices using Wi-Fi and similar technologies and how such data should be considered in assessing the competitive conditions of the CMRS market.
- The Commission seeks comment on how competitive conditions and performance in the CMRS industry in the United States compare to that in other countries, including data on key industry performance metrics, such as subscribership, penetration rates, usage, pricing, quality of service, and service availability.

4. In addition, The Commission seeks comment on the Commission's market-oriented policies, including those that promote facilities-based competition among providers of CMRS and that the Commission believes have provided important benefits to consumers. For example, the Commission's policy to let market forces determine the number of providers operating in a given geographic area, subject to antitrust restrictions and other appropriate limits, has allowed providers to operate at a competitive and efficient scale of operation. This policy enables these providers to serve consumers at prices that reflect the cost savings of efficient operation among other factors. Over the past decade, with respect to broadband personal communications services ("PCS") and other mobile radio services, the Commission has adopted a licensing model in which licensees have "exclusive and transferable flexible rights" to the use of specified spectrum within a defined geographic area, with spectrum use rights that are governed primarily by technical rules to protect against harmful interference.[14] The Commission seeks further input on how, for purposes of assessing and comparing competitive market conditions, this

[13] Nomadic service refers to the ability to communicate through a wireless network from various locations while stationary. Nomadic networks, such as Wi-Fi, provide high-speed access to users operating within discrete service areas. Nomadic networks are not, however, engineered to provide high-speed service to users operating their devices while in motion.

[14] *See, e.g.*, Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, *Policy Statement*, 14 FCC Rcd 19868 (1999). This licensing model is an example of a licensing model that has been referred to as the "exclusive use" spectrum usage model. Under this model, "exclusive and transferable flexible property rights in spectrum" should not be read to imply or require creation of "full" private property rights in spectrum. *See* Federal Communications Commission, Spectrum Policy Task Force Report, ET Docket No. 02-135 (rel. Nov. 2002) ("*Spectrum Policy Task Force Report*").

approach leads to the deployment of the spectrum for its highest and most valued use, and how, in turn these trends have facilitated the provision of services that are tailored to the preferences of consumers.

5. The Commission seeks comment on how the market structure in this industry has evolved due to specific actions by the Commission, especially the application of the above-referenced spectrum usage model for CMRS and other market-oriented policies. What other effects have resulted from these policies? Are these effects the same in urban and rural areas? If not, how do they differ, and why? Do these effects vary among CMRS providers? If so, why? Are there other policies that the Commission could adopt that would enhance competition in the mobile telecommunications industry?[15]

6. Industry members, members of the public, and other interested parties should submit information, comments, and analyses regarding competition in the provision of CMRS services. Commenters desiring confidential treatment of their submissions should request that their submission, or a specific part thereof, be withheld from public inspection.[16] In order to facilitate its analysis of competitive trends over time, the Commission requests that parties submit current data as well as historic data that are comparable over time. In addition to the comments submitted in this proceeding, the *Ninth Report*, as all past *CMRS Reports*, will also include information from publicly-available and Commission sources.

II. MATTERS ON WHICH COMMENT IS REQUESTED

7. In prior *CMRS Reports*, mobile telecommunications have been divided into two sectors: (1) mobile voice[17]; and (2) mobile data.[18] As noted in the *Eighth Report*,[19] however, mobile voice and mobile data services are no longer clearly separate services in the CMRS industry. Many mobile voice operators also offer mobile data services using the same spectrum, network facilities, and customer equipment. Furthermore, many United States mobile carriers have integrated the marketing of mobile voice and data services. Therefore, for purposes of this *NOI*, the Commission inquires about a single mobile telecommunications sector that includes interconnected mobile voice and mobile data services provided on the same handset, as well as providers that offer only mobile data services.[20] Providers of mobile telecommunications services primarily use cellular radiotelephone, broadband Personal Communications Services ("PCS"), and Specialized Mobile Radio ("SMR") licenses.[21] Because these licensees offer mobile telecommunications services that are essentially indistinguishable by most

[15] 47 U.S.C. § 332(c)(1)(C).

[16] 47 C.F.R. § 0.459.

[17] Mobile voice is a sector that has been defined to include all operators that offer commercially available, interconnected mobile voice services, and provide access to the public switched telephone network ("PSTN") via mobile communication devices employing radiowave technology.

[18] For purposes of the *CMRS Reports*, mobile data service is considered to be the delivery of non-voice information to a mobile device. Two-way mobile data services include not only the ability to receive non-voice information on an end-user device but to send it from an end-user device to another mobile or landline device using wireless technology. *See Eighth Report*, 18 FCC Rcd at 14839, ¶ 124.

[19] *See Eighth Report*, 18 FCC Rcd at 14792, ¶ 15.

[20] As a matter of analytic convenience, for purposes of this *NOI* mobile voice and data services are discussed under the general category of "mobile telecommunications services." This in no way is meant to contradict the Commission's statutory obligations to adhere to the Act's distinctions between "telecommunications services" and "information services," conflict with judicial rulings in this regard, or add to or modify any of the Commission's rules, pronouncements, and policies that follow from the Commission's application of these terms. Communications Act § 3(43), 47 U.S.C. § 153(43); Communications Act § 3(46), 47 U.S.C. § 153(46).

consumers, they are discussed in this *NOI* as a single industry sector. Resellers and satellite[23] operators also offer mobile telecommunications services. In addition, in an effort to continue to provide the most complete picture of competition among providers of CMRS to Congress, the *Ninth Report* will also look at mobile wireless service offerings outside the umbrella of "services" specifically designated as CMRS by the Commission.[24] Because providers of these services may compete now or in the future with CMRS providers, the Commission believes it is important to consider them in its analysis and collect information on mobile wireless services regardless of their regulatory classification. The Commission asks if there are other providers that compete in this market. If so, to what extent are these providers creating competition in the mobile telecommunications industry?

A. Mobile Telecommunications Market Structure

8. The analysis of market structure will focus on the current level of concentration and the ease or difficulty with which new operators can enter the mobile telecommunications market. Examples of key metrics collected in the past that assisted in the determination of market structure include: the current number of operators per county; planned spectrum auctions that may enable the entry of additional operators; and consolidation and exit of operators from the mobile telecommunications market. The sources of data and analysis of these and other metrics are discussed below. The Commission invites commenters to address whether there are other metrics that should be used to evaluate the market structure of the mobile telecommunications market? Are data for these metrics available on a national and/or sub-national level?

1. Geographic Market Definition and Service Availability

9. **Defining Geographic Markets.** In order to analyze the structure of the mobile telecommunications market, it is necessary to accurately define the relevant product and geographic markets, and to identify the number of carriers providing service in those markets.[25] Defining the relevant geographic market requires, among other things, the identification of a geographic area within which customers face similar competitive choices. Defining geographic markets is complicated and time consuming due to the large number of mobile operators, the wide variation in their geographic footprints, and the resulting patchwork of numerous and relatively small geographic areas in which consumers face the same choices of mobile telecommunications providers.

10. The Commission seeks comment on how best to define geographic markets to analyze the structure of the mobile telecommunications market for the *Ninth Report*.[26] The Commission also requests comment on how to improve the methodology the Commission uses to determine the number of carriers serving a defined geographic area. The methodology used in prior reports inherently includes some undetermined degree of overcounting.[27] Do commenters believe that this degree of overcounting is

(...continued from previous page)

[21] *See Eighth Report*, 18 FCC Rcd at 14795, ¶ 20.

[23] 47 C.F.R. § 20.9 (10).

[24] For example, wireless local area network ("WLAN") services, such as Wi-Fi, may compete with CMRS providers but are outside the umbrella of CMRS services.

[25] *See* ¶ 7, *supra*, for discussion of product markets.

[26] Any individual proceeding in which the Commission defines relevant product and geographic markets, such as an application for approval of a license assignment or transfer, may present facts pointing to narrower or broader product or geographic markets than any used, suggested, or implied in the *CMRS Reports*.

[27] Previous *CMRS Reports* have included several notable caveats about the Commission's analysis of service availability. *See, e.g. Eighth Report*, 18 FCC Rcd at 14822, ¶ 82. First, to be considered as "covering" a county, an operator need only be offering any service in a portion of that county. Second, multiple operators shown as covering (continued....)

significant and materially affects the determination of mobile telecommunications service availability and market structure? Is there an alternate methodology that could be used to estimate service availability more accurately?

11. **Service Availability by Billing Address.** In conducting its analysis of service availability and market structure, the Commission seeks information about the extent to which consumers are able to, and do, purchase service plans from carriers whose networks do not cover their residential location or billing address. Carriers frequently query potential subscribers about the zip code of their billing address. Should this be taken as an indication that carriers do not provide service to consumers whose billing address zip codes are outside the range of the carriers' network coverage areas, even if such consumers wish to purchase service plans in order to use their phones inside the coverage areas? To what extent are mobile telecommunications subscribers' residential locations or billing addresses located outside of their carrier's network coverage area? To what degree would an analysis of the population of smaller geographic areas that underlie carriers' network coverage boundaries undercount those subscribers? Furthermore, would the use of other, smaller geographic areas in addition to or in place of counties be appropriate in analyzing service availability? If so, which areas would be appropriate? Do such data currently exist?

12. **Rural Markets.** Since the release of the *Sixth Report,*[28] the Commission has attempted to obtain a better understanding of the state of competition below the national level, and particularly in rural areas.[29] In order to analyze the mobile telecommunications market structure in rural areas, it is necessary first to define "rural areas." The federal government has multiple ways of defining rural, reflecting the multiple purposes for which the definitions are used.[30] In the *Eighth Report*, the Commission analyzed service availability in rural areas using three different proxy definitions, and

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the same county are not necessarily providing service to the same portion of that county. Consequently, some of the counties included in this analysis may have limited coverage from a particular provider. Third, the figures for POPs and land area in this analysis include all of the POPs and every square mile in a county considered to have coverage (POPs is an industry term referring to population, usually the number of people covered by a given wireless license or footprint -- one "POP" equals one person). Therefore, this analysis overstates to some degree both the level of competition and total coverage in terms of both geographic area and population covered.

[28] Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Sixth Report*, 16 FCC Rcd 13350 (2001) ("*Sixth Report*").

[29] The Commission held a public forum in February 2002 to discuss, among other things, CMRS competition issues in rural areas. In addition, the *NOI* issued to solicit comments and data for the *Eighth CMRS Report* included questions on a range of rural wireless issues. Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, WT Docket No. 02-379, *Notice of Inquiry,* 17 FCC Rcd 24923 (2002).

[30] *See Eighth Report,* 18 FCC Rcd at 14834, ¶ 108-109. *See* Biennial Regulatory Review, Spectrum Aggregation Limits for Wireless Telecommunications Carriers, *Report and Order*, 15 FCC Rcd 9219, 9256 n.203 (1999). Consistent with this approach, the Commission recently applied this distinction between rural and urban areas in its review of the cellular cross-interest rule, deciding to maintain this rule in RSAs while eliminating it in Metropolitan Statistical Areas ("MSAs"). *See also* 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, *Report and Order*, 16 FCC Rcd 22668, 22694 ¶ 48 (2001) ("*Spectrum Aggregation R&O*"), *petitions for reconsideration pending*. Based on data in its records, the Commission found that RSAs typically have fewer competitors offering two-way mobile service, and fewer nationwide service providers, than do MSAs. *Spectrum Aggregation R&O*, 16 FCC Rcd at 22705, ¶ 79. *See* 47 U.S.C. § 153(37), 47 C.F.R. § 1.2110(c)(4). *See also* Facilitating the Provision of Spectrum-Based Service to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, 18 FCC Rcd 20802, 20808-11 ¶¶ 10-12 (2003) ("*Rural NPRM*").

similar results were obtained for each definition.[31] The Commission compared the number of competitors in: 1) Rural Statistical Areas ("*RSA*") counties versus Metropolitan Statistical Areas ("*MSA* ")counties; 2) non-nodal Economic Areas ("EA") counties versus nodal EA counties;[32] and 3) counties with population densities below 100 persons per square mile versus those with population densities above 100 persons per square mile.[33] In addition, the Commission recently released a *Notice of Proposed Rulemaking* to examine ways to promote the rapid and efficient deployment of spectrum-based services in rural areas.[34] The Commission requests comment on how the Commission should define "rural areas" for purposes of the *Ninth Report*. Should there be a single distinction between rural and non-rural areas, or should rural and non-rural be defined on a continuum, for example by looking at different population densities? Should the Commission adopt one of the proposed definitions in the *Rural NPRM*, or some combination of the elements contained in those proposed definitions, for the *Ninth Report?*

13. **Service Deployment and Coverage Maps**. In order to improve the accuracy of its analysis and to reduce overcounting in the *Ninth Report*, the Commission asks service providers to submit as part of their comments to the Commission, in electronic format, the coverage maps that they already make available to the public.[36] Specifically, the Commission requests carriers to submit as part of their comments the maps they employ to advertise their coverage areas in brochures and on their web sites in a geo-referenced, mapable format, such as MapInfo table (.tab), Tagged Image Format (.TIF), or Shapefile (.shp) files.[37] The Commission requested this data in last year's NOI and no carrier responded. Besides

[31] *See Eighth Report*, 18 FCC Rcd at 14835-37, ¶¶ 111-121.

[32] Each EA consists of one or more counties that are "Economic Nodes" and the surrounding counties that are economically related to it. An EA may have more than one economic node. The counties that are economic nodes are metropolitan areas or similar areas that serve as the EA's center(s) of economic activity. As a proxy for urban and rural geographic areas, the Commission looked at counties which make up economic nodes, i.e. nodal counties, versus those counties that do not make up economic nodes, i.e. non-nodal counties. *See Eighth Report*, 18 FCC Rcd at 14836, ¶ 112.

[33] *See Eighth Report*, 18 FCC Rcd at 14837, ¶ 114.

[34] *See Rural NPRM*, 18 FCC Rcd at 20803-04, ¶1. The Rural NPRM addresses regulations and policies pertaining to the provision of commercial and private terrestrial wireless services and, in certain respects, unlicensed systems and devices. In addition, pursuant to Section 11 of the Communications Act, the Rural NPRM examines whether the cellular cross-interest rule continues to be necessary in the public interest, in light of meaningful economic competition. *See* 47 U.S.C. §§ 161(a)(1), (2). While the policies and proposals discussed in the Rural NPRM are targeted at promoting wireless services to consumers in rural areas, certain of its proposals have broader application to non-rural areas as well.

[36] As mentioned in previous reports, there are several important caveats to note when considering the data. First, to be considered as "covering" a county, an operator need only be offering any service in a portion of that county. Second, multiple operators shown as covering the same county are not necessarily providing service to the same portion of that county. Third, the figures for POPs and land area in this analysis include all of the POPs and every square mile in a county considered to have coverage. Therefore, its analysis overstates to some unknown and unavoidable degree the total coverage in terms of both geographic areas and population covered. On the other hand, the Commission believes its analysis to be the most accurate in the industry today given the coverage data that is publicly available. *See Eighth Report*, 18 FCC Rcd at 14822, ¶ 82.

[37] For information on how these map files should be submitted, see ¶ 74, *infra*.

requesting the information in an NOI, how else could the Commission obtain this information? Would signatories to Cellular Telecommunications and Internet Association ("CTIA") Voluntary Consumer Code be willing to submit their coverage maps to the Commission in one of the aforementioned electronic formats? In the alternative, the Commission asks carriers to provide a list of counties where they provide facilities-based services. The Commission has used the contours filed by 800 MHz cellular licensees to estimate the availability of analog mobile telephone service, and therefore does not require additional maps showing analog coverage from cellular licensees.[38] However, the Commission requests that cellular licensees submit, as part of their comments, their publicly available maps in the aforementioned formats showing where they offer reliable digital service, or else supply lists of counties in which the service is offered. In addition to employing more accurate coverage maps, The Commission seeks comment on other ways its analysis of service availability can be improved?

14. In order to continue to improve the accuracy of its analysis, the Commission seeks information on whether carriers market service to new customers in all of the geographic areas in which they have coverage. Do carriers provide coverage in certain areas, such as near major roads, where they do not also market service to residents of those areas? If this is true, could the Commission's analysis be further improved if carriers indicated the parts of their coverage areas in which they compete to offer new service and the parts that are used only to provide coverage to traveling subscribers based in other locations? Also, in what respect do infrastructure sharing agreements, such as those between carriers along highways in low-population areas, affect service availability in rural areas?[39] Do such agreements effectively increase the number of competitors in those areas? Do these arrangements increase wireless usage in areas adjacent to such areas?

15. **Mobile Data Deployment.** The Commission also seeks comment on deployment of next-generation network technologies such as 1X and GPRS, which will bridge the gap between second and third generation technologies. The Commission is particularly interested in changes that have occurred in such deployment since the *Eighth Report.* For example, in what portion of their license and network footprints have carriers deployed these technologies, and what advanced wireless applications are being offered using these technologies? Are the same types of advanced services available in all areas, and in particular, does the availability of advanced services vary between urban and rural areas? Specifically, the Commission requests carriers to submit as part of their comments the maps they employ to advertise their mobile data coverage areas in brochures and on their web sites in a geo-referenced, mapable format, such as MapInfo table (.tab), Tagged Image Format (.TIF), or Shapefile (.shp) files including the type of mobile data services being offered there. In the alternative, the Commission asks carriers to provide a list of counties where they provide these mobile data services.

16. **Reliability of Data.** The Commission's service availability analysis relies on information reported by service providers, including their news releases, filings with the Security and Exchange Commission ("SEC"), web site coverage maps, and network buildout notifications filed with the Commission. In addition, there are independent web sites and public reports that include some information about service coverage and dead zones.[40] The Commission seeks comment on the advantages and disadvantages to this approach, including the potential biases arising from relying exclusively on data supplied by parties that may have a financial interest in the use of such data as part of Commission

[38] Cellular licensees have submitted maps of their service contours as part of the filings required to establish Cellular Geographic Service Area ("CGSA") boundaries. *See* 47 C.F.R. §§ 22.947(c), 22.953(a)(1)-(2).

[39] In January 2002, Cingular Wireless, LLC and AT&T Wireless Services announced the formation of an infrastructure joint venture to build out a GSM/GPRS network along 3,000 miles of interstate highways predominantly in western and midwestern states. *See Eighth Report*, 18 FCC Rcd at 14807, ¶ 45.

[40] *See* Federal Communications Commission, Consumer and Governmental Affairs Bureau, *What You Should Know About Wireless Phone Service* <<http://www.fcc.gov/cgb/wirelessphone.pdf>>, for a list of web sites.

decisions. Since the Commission, in some cases, reports on information supplied only by one or two sources, the Commission also seeks comment on ways of obtaining independent verification of competition information provided for the *Ninth Report*. Which independent sources can be reliably used to verify carrier-supplied coverage information? Do commenters believe such verification is necessary in analyzing service availability and competition?

17. **Resale Providers.** Resellers offer service to consumers by purchasing airtime at wholesale rates from facilities-based providers and reselling it at retail prices. According to information provided to the Commission in its ongoing local competition and broadband data gathering program, the resale sector accounted for approximately 5 percent of all mobile telephone subscribers as of December 2002.[41] To what extent are resellers creating competitive pressures in the mobile telephone sector? Who are the major resellers in the United Sates? How many subscribers do they have? From the consumer's perspective, what are the benefits of buying from a reseller versus a facilities-based provider? Are resellers selling to specific demographic segments? The Commission also seeks comment on the impact of the November 24, 2002 sunset of the CMRS resale rule on the extent and vigor of resale activity.[42] The *Eighth Report* discusses "mobile virtual network operators" ("MVNOs") as a type of reseller focusing on brand development, with the intent to offer a niche product and to have better customer retention.[43] The Commission asks for comment on how this resale model has affected the provision of resale services. The Commission also asks for information about companies employing the MVNO resale model since the *Eighth Report*.

18. **Satellite Providers.** Certain satellite services are by definition CMRS. At least four satellite carriers currently provide mobile satellite services ("MSS") in the United States: Globalstar Telecommunications LTD, Iridium Satellite LLC, Inmarsat Limited, and Mobile Satellite Ventures.[44] The Commission requests carriers to submit as part of their comments information detailing the geographic areas of the United States in which they provide coverage as well as those areas in which they offer service to new customers. Taking into account such information on MSS service availability, The Commission seeks comment on the extent of competition among MSS providers. To what extent do MSS providers compete with terrestrial-based mobile telecommunications providers? Are MSS services substitutes for terrestrial-based mobile voice and data services?

2. Horizontal Concentration and Vertical Integration

19. Concentration measures based on output metrics, such as market share of subscribers or revenues, are common tools used to assess market structure. Previous CMRS reports have not provided concentration measures, in part because of the difficulty in defining geographic markets and limitations on available output data. Can the use of concentration measures, such as the Herfindahl-Hirshman Index ("HHI"), give additional insight into whether effective competition exists as well as into whether a service provider has a dominant share of the market? The Commission requests comment on whether concentration measures should be included in the *Ninth Report*. Commenters who recommend that the Commission include concentration measure(s) in the *Ninth Report* are requested to provide comments on various concentration measures and how these metrics may enhance its analysis of market structure. The

[41] *See Eighth Report*, 18 FCC Rcd at 14838, ¶ 122.

[42] 47 C.F.R. § 20.12.

[43] *Eighth Report*, 18 FCC Rcd at 14838-39, ¶ 123. An example of an MVNO is Virgin Group LLC ("Virgin"). Virgin has an arrangement with Sprint PCS whereby Virgin markets prepaid mobile telephone service using Sprint PCS's network.

[44] *Eighth Report*, 18 FCC Rcd at 14866, ¶ 189.

DOJ/FTC Guidelines provide HHI thresholds that indicate concentrated markets.[45] If HHIs are employed, what should constitute a high degree of concentration for the mobile telecommunications market? One possible HHI threshold level would be those listed in the DOJ/FTC merger guidelines. Are these appropriate to use when looking at whether there is effective competition in the mobile telecommunications market?

20. One possible data source that could be used to calculate output market concentration statistics is the Numbering Resource Utilization / Forecast (NRUF) data that are submitted to the Commission on a rate center basis.[46] Rate center boundaries are much smaller than, and not coextensive with, mobile telecommunications license boundaries such as Cellular Market Areas ("CMAs"), Metropolitan Trading Areas ("MTAs"), or Basic Trading Areas ("BTAs").[47] Due to their relatively small size, rate centers are not necessarily indicative of where a mobile telecommunications subscriber lives, works, or uses a mobile telecommunications device. In addition, in order to protect the confidentiality of the companies submitting NRUF data, the Commission does not report the number of subscribers for geographic areas in which there are three or fewer carriers.

21. If concentration measures are included in the *Ninth Report*, given the caveats discussed above, are the NRUF data a reasonable proxy for output in the mobile telecommunications market? Also, The Commission seeks comment on how to determine which geographic area or areas should be used to calculate mobile telecommunications concentration measures. In particular, The Commission seeks comment on the appropriateness of various geographic market delineations given the limitations of the NRUF data discussed above.

22. In addition to the issue of horizontal concentration in the relevant end-user service market, the Commission also seeks information on the extent of, and the factors giving rise to, vertical integration and disintegration in the CMRS industry. In other words, under what circumstances and for what reasons do CMRS providers employ their own inputs[48] rather than purchasing them from outside vendors? The Commission seeks comment and information on the vertical structure of the CMRS industry. How prevalent is vertical integration or disintegration with respect to the different elements of physical network infrastructure, spectrum, and content, and are there any discernible trends toward vertical integration or disintegration with respect to any of these inputs? What considerations shape the decisions of CMRS providers to make or buy their inputs? What is the actual or potential impact of vertical integration or disintegration, if any, on competition among providers of CMRS, the cost of providing service, or other aspects of the performance of the CMRS industry?

3. Consolidation and Exit

23. Consolidation and exit of service providers, whether through secondary market transactions or bankruptcy, may affect the structure of the mobile telecommunications market. For example, a reduction in the number of service providers may increase the market power of any given

[45] The HHI is the sum of the squares of the output-based market shares of each firm participating in the market. *See DOJ/FTC Guidelines* at § 1.5.

[46] There are approximately 20,000 rate centers in the country. *See Eighth Report* 18 FCC Rcd at 14815 n.223. *See also* ¶ 60, *infra*.

[47] Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Seventh *Report*, 17 FCC Rcd 12985, 13004, (2002) ("*Seventh Report*"). MTAs and BTAs are Material Copyright © 1992 Rand McNally & Company. Rights granted pursuant to a license from Rand McNally & Company through an arrangement with the Federal Communications Commission.

[48] Inputs to mobile telecommunication include such things as electromagnetic spectrum and network infrastructure.

service provider which could lead to higher prices, fewer services, and/or less innovation.[49] The Commission seeks comment on the effects of consolidation in the mobile telecommunications market. Are the effects of consolidation different for mergers and acquisitions, swaps, joint ventures, and bankruptcies? Has consolidation affected mobile data services differently than mobile telephone services? Has consolidation affected rural areas differently than urban areas? Among the policies potentially affecting consolidation in this market, the Commission eliminated (effective January 1, 2003) a rule limiting the amount of spectrum a CMRS licensee could own or control in a given licensed area.[50] The Commission seeks comment on how consolidation of spectrum and facilities has affected the mobile telecommunications market structure since the sunset of the Commission's CMRS Spectrum Aggregation Rule.

4. Barriers to Entry[51]

24. If entry into a market is easy, then entry or the threat of entry may prevent incumbent operators from exercising market power, either collectively or unilaterally, even in highly concentrated markets.[52] The ease or difficulty of entry generally depends on the nature and significance of entry barriers. Barriers to entry in the mobile telecommunications market may include first-mover advantages, large sunk costs, and access to spectrum. [53] The Commission seeks comment on these and other types and level of barriers to entry in the mobile telecommunications market. What are the most significant barriers to entry in the mobile telecommunications market? Are barriers to entry different in rural and urban areas?

25. **Access to Spectrum**. The Commission seeks comment on whether there is access to sufficient spectrum, either through Commission auctions or through secondary market transactions, to prevent spectrum from becoming a significant barrier to entry in the CMRS industry. Are existing service providers spectrum constrained? If so, in which geographic markets are carriers most likely to be constrained? Have these carriers become more spectrum constrained after rolling out next generation services? Do potential entrants have sufficient opportunities to access spectrum? As advanced wireless technologies become more prevalent, will potential entrants have more or fewer opportunities to access spectrum?

26. The Commission's recent action to facilitate leasing and other transactions via secondary markets addressed the question of spectrum access in a number of services.[54] In the *Secondary Markets R&O*, the Commission allowed licensees in the Wireless Radio Services, including CMRS, to lease all or

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[49] Consolidation, however, does not always result in a negative impact on consumers. Consolidation in the mobile telecommunications market may enable carriers to achieve certain economies of scale and increased efficiencies compared to smaller operators. These benefits could result in lower prices and new and innovative services for consumers. *See Eighth Report*, 18 FCC Rcd at 14805, ¶ 41.

[50] *Spectrum Aggregation R&O*, 16 FCC Rcd at 22693, ¶ 49.

[51] *DOJ/FTC Guidelines* at § 3.0. For a discussion of barriers to entry, *see* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 76-82 (3rd ed., Addison, Wellsley, Longman, Inc., 1999). The cost of capital is the firm's cost of funds provided by creditors and shareholders. A firm's cost of capital is the cost of its long-term sources of funds: debt, preferred stock, and common stock. The cost of each source reflects the risk of the assets in which the firm invests.

[52] *See DOJ/FTC Guidelines* at § 3.0; *see also* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 77 (3rd ed., Addison, Wellsley, Longman, Inc., 1999).

[53] *See Spectrum Aggregation R&O*, 16 FCC Rcd at 22688-91, ¶¶ 39-43.

[54] Promoting Efficient Use of Spectrum through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604 (2003) ("*Secondary Markets R&O*").

a portion of their spectrum usage rights, for any length of time within the license term, and over any geographic area encompassed by the license. The Commission seeks comment on whether this new policy to facilitate spectrum leasing, combined with future spectrum auctions such as that for Advanced Wireless Services,[55] will provide sufficient opportunities both for existing carriers to expand their operations and for new mobile telecommunications providers to enter the market. Are there other barriers that limit access to spectrum?

27. The Commission requests comment from licensees and potential spectrum lessees regarding their experience exploring possible spectrum leases following Commission adoption of the *Secondary Markets R&O*. Are licensees and potential spectrum lessees able to identify potential spectrum leasing partners? What considerations are driving negotiations regarding spectrum leases? Are there impediments to leasing, and if so, what is the nature of these impediments? Are pricing considerations, either the price sought by licensees or the amount the lessees are willing to pay, acting as an impediment? Are there other considerations, such as high transaction costs, that may affect the willingness of either licensees or potential lessees to undertake spectrum leasing negotiations? What types of leasing arrangements are being sought by both licensees and potential spectrum lessees? Are the spectrum leasing negotiations targeted at providing additional spectrum to meet the needs of an existing licensee in the geographic area encompassed by the lease, or aiding an existing licensee to fill out its footprint, or providing spectrum access to a new entrant, or to achieve some other objective?

28. **Other Barriers to Entry.** The Commission also seeks comment on other market conditions that may present barriers to entry in the CMRS market. For example, the Commission recognizes that cellular licensees, like early entrants in other industries, have benefited from a first-mover advantage.[56] Do cellular licensees continue to benefit from this advantage, and if so, to what extent and in which markets? In addition, might access to capital create a barrier to entry in the mobile telecommunications market? To what degree do mobile telecommunications providers face capital market constraints in financing the purchase of spectrum licenses, or the leasing of spectrum rights, or the construction of facilities? Do the nationwide carriers face a different capital market than do smaller regional and local providers? The Commission seeks comment on the height of scale economy barriers in mobile telecommunications. Finally, The Commission seeks comment on the extent to which the ability to site cell towers in a carrier's licensed market area creates a barrier to entry. Some carriers have reported problems obtaining permission to site cell towers in certain geographic markets.[57] How widespread is this problem? Is this a greater problem in certain regions of the country?

B. Carrier Conduct in the Mobile Telecommunications Market

29. Whether there is effective competition in the mobile telecommunications market also depends on the conduct and interaction of the carriers in the market. For example, while coordinated interaction and unilateral effects may lessen competition, such conduct may be averted by the presence of one or more carriers who have the ability and incentive to expand sales by offering innovative service packages, undercutting the prices of rivals, and/or engaging in extensive advertising and promotional campaigns.[58] The Commission asks for information on the degree and extent of (1) price rivalry and (2)

[55] Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, *Report and Order*, 18 FCC Rcd 25,162 (2003).

[56] *See Spectrum Aggregation R&O*, 16 FCC Rcd at 22708, ¶ 89.

[57] *Sprint PCS Reply Comments* at 8-10 in Year 2000 Biennial Regulatory Review—Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and Other Commercial Mobile Radio Services, WT Docket No. 01-08.

[58] An example is when AT&T introduced its digital-one-rate plan in May 1998, which was the first plan to include a large quantity of monthly minutes at a fixed rate and no long distance charges when used on the operator's network Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis

(continued....)

non-price rivalry. Are there other indicators related to carrier conduct that the Commission should examine?

1. Price Rivalry

30. Past *CMRS Reports* examined new types of pricing plans in order to report on major developments in the industry and to assess the new plans' impact on competition.[59] This information is relevant in determining the intensity and degree of price rivalry in the mobile telecommunications market. To what extent do new types of pricing plans reflect price rivalry among the providers? What are the major innovations that have occurred with pricing plans since the *Eighth Report*? Have these pricing innovations spread throughout the mobile telecommunications market or have they been limited to a subset of carriers? In addition, The Commission seeks comment on the extent to which carriers in their pricing plans differentiate between data services offered over 2G networks and those offered over newer generation technologies such as 1X and GPRS networks. Have past pricing innovations been more widely adopted in the last year?

31. The Commission seeks information on which carriers offer nationwide pricing plans, particularly those that are not typically described as being nationwide operators, and request descriptions of the terms of such plans. The Commission asks carriers that offer nationwide pricing plans whether they offer the same rates and terms to consumers throughout all parts of the country where they offer such plans, including Alaska and Hawaii as well as the U.S. Territories. Furthermore, do carriers charge different prices (monthly and per minute) or offer different terms for their local and regional plans across the various areas that they serve, for example, between rural and urban areas? If so, are these geographic variations substantial, and what are the major reasons for such variations? If there are no geographic variations, why not?

32. Are there patterns where certain demographic groups subscribe to similar pricing plans? For example, do subscribers with lower personal or household incomes tend to purchase local or regional plans rather than national plans? Are particular plans associated with teenagers, college students or seniors? Are prepaid services used by a group of consumers with similar characteristics? Also, The Commission seeks information on the existence and the extent of contracts with terms and prices other than those that are widely advertised. Are these types of contracts associated with or targeted to a certain type of demographic group? Do consumers that use specific types of mobile telecommunication services such as mobile data services have similar demographic characteristics? Have the introduction of new types of pricing plans increased mobile telephone penetration among specific demographic groups or in certain geographic areas?

2. Non-Price Rivalry

33. Service providers in the mobile telecommunications market also compete on non-price characteristics such as coverage, quality of service, and ancillary services. Non-price competition is a response to consumer preferences and demand. Indicators of non-price rivalry include advertising and marketing, capital expenditures, technology deployment and upgrades, and the provision of ancillary services. The Commission seeks information on non-price rivalry.

(...*continued from previous page*)
of Competitive Market Conditions with Respect to Commercial Mobile Services, *Fourth Report*, 14 FCC Rcd 10145, 10155 (2000) ("*Fourth Report*") and Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Fifth Report*, 15 FCC Rcd 17660, 17677-78 (1999) ("*Fifth Report*").

[59] *Eighth Report*, 18 FCC Rcd at 14828-29, ¶¶ 94-95.

34. **Advertising and Marketing.** Firms may engage in advertising and marketing either to inform consumers of available products or services or to increase sales by changing consumer preferences. Mobile telecommunications service is an "experience good,"[61] and in general, advertising for an experience good tends to be persuasive rather than informational in nature. What type of advertising do mobile telecommunications carriers engage in? Do they utilize promotional or informational advertising or a mix of both? Does the type of advertising vary with the medium? Are there studies on the national or sub-national level that provide data and/or analysis of advertising by mobile telecommunications firms? The Commission also seeks comment on the extent to which CMRS providers' efforts to brand their services through advertising and marketing cultivate brand loyalty.

35. **Capital Expenditures.** Capital expenditures are funds spent during a particular period to acquire or improve long-term assets such as property, plant, or equipment. In the mobile telecommunications market, capital expenditures consist primarily of spending to expand and improve the geographic coverage of networks, to increase the capacity of existing networks to serve more customers, and to improve the capabilities of networks (by allowing for higher transmission speeds, for example).[62] Have capital expenditures by mobile telecommunications providers increased or decreased since the *Eighth Report*? What are the underlying reasons for the change? Are there any studies or analyst reports on the capital expenditures of nationwide carriers versus regional/local providers? Does data exist on capital expenditures by geographic region?

36. **Technology Deployment and Upgrades.** Mobile telecommunications carriers have been deploying next-generation network technologies, which offer mobile data services at higher data transfer speeds than earlier versions.[63] The *Eighth Report* discussed the progress of nationwide and regional carriers in deploying these technologies.[64] For the *Ninth Report*, the Commission requests information on the extent to which mobile telecommunications carriers are continuing to upgrade, or plan to upgrade their networks to these advanced services and/or even more advanced technologies -- such as EDGE, WCDMA, and 1xEV-DO. Specifically, do carriers plan to deploy more advanced technologies? If yes, how extensively are carriers planning these deployments to be (*e.g.*, will carriers focus on urban areas only, or will they deploy these technologies in rural areas as well)? With regard to GSM-based carriers, the Commission asks whether carriers are planning to upgrade their GPRS systems. If yes, are they planning to upgrade to EDGE, WCDMA or some other technology? With regard to CDMA-based carriers, to what extent are they planning to upgrade their networks to include 1xEV-DO technology? Are there other new wireless technologies that will improve wireless providers' coverage, capacity and/or service offerings for mobile telecommunication services?

37. As discussed in the *Eighth Report,* most of the major mobile telecommunications carriers have introduced the capability to exchange text messages with subscribers on other carriers' networks.[65] The Commission seeks information on the extent to which this intercarrier interoperability has affected Short Messaging Service ("SMS") adoption rates.

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[61] An experience good is a product or service that the customer must consume before determining its quality. *See* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 484 (3rd ed., Addison, Wellsley, Longman, Inc., 1999).

[62] *Eighth Report*, 18 FCC Rcd at 14818, ¶ 70.

[63] *Eighth Report*, 18 FCC Rcd at 14803-04, ¶¶ 36-37.

[64] *Eighth Report*, 18 FCC Rcd at 14819-20, ¶¶ 71-77.

[65] *Eighth Report*, 18 FCC Rcd at 14847, ¶ 144.

38. The Commission requests information on the number of users of SMS and the volume of SMS traffic. In addition, the Commission requests comment as to the actual data transfer speeds that are being experienced with GPRS and 1X systems (as well as EDGE and 1xEV-DO systems, where those technologies have been deployed) and the degree to which individual users' data speeds vary with the number of subscribers concurrently operating on these systems within a given area.

39. There are a growing number of service providers that offer data-only services. These providers include traditional one-way paging service providers as well as two-way data-only service providers. For example, as discussed in the *Eighth Report*, Monet Mobile, offers data-only service using CDMA1xEV-DO technology and broadband PCS spectrum. Two other carriers, Cingular Wireless and Motient Corp. operate two-way data networks using the 900 MHz SMR and 800 MHz SMR spectrum bands, respectively.[66] The Commission asks for information on carriers providing one-way and two-way data-only services, including deployment, technology employed, data speeds, pricing, number of subscribers and usage.

40. The Commission asks for comment on new or enhanced mobile data services and devices that have been introduced since the *Eighth Report* such as new or enhanced location-based services, games, digital photo and video technologies, and downloadable music. To what extent do providers bundle different mobile data services with each other and/or with voice service? The Commission asks for information on the types of devices upon which these services are offered; how they are priced (e.g. bundled or stand-alone, bulk or per usage); where the services are available; and, the usage and subscribership levels?

41. The Commission also asks for comment on the availability of mobile Internet services. Do providers offer mobile Internet services throughout their entire licensed service areas, or only in areas that have been upgraded to next generation technologies, such as GPRS and 1X? Which types of devices are used most for mobile Internet access? Do any of the features of mobile data devices – such as battery life, data storage capacity, and screen size – constrain the ability of users to access mobile Internet services, and therefore limit the demand for these services? To what extent are users of wireless high-speed internet access services getting this access through mobile and portable computing devices using Wi-Fi and similar technologies? How does such use, whether on a subscription or non-subscription basis, compare to Internet access services using licensed spectrum? To the extent that mobile service providers are integrating Wi-Fi technology into their devices, how is this affecting the use of mobile Internet services? In how many locations is Wi-Fi and similar technologies currently available and in which types of locations do most users establish high speed connections to the Internet (*e.g.*, airports, coffee shops, community networking[67])? Are those locations part of a retail or wholesale network, or independent stand-alone locations? What data transfer speeds do most users experience with the various unlicensed technologies and other standards? How are subscription-based offerings priced to consumers? Is service offered as part of a bundled package, an add-on or as a stand-alone product? Are voice services available using these connections and if so, by whom, where and how are they priced?

42. **Provision of Ancillary Services and Promotional Offers.** Mobile telecommunications providers offer ancillary services and promotions such as caller ID, voice mail, call forwarding, long distance, push-to-talk, free or reduced priced handsets, and free night and weekend minutes. The cost of these services is either included in the monthly charge or billed separately. Carriers use ancillary services and promotional offers to differentiate their products from those of their competitors. They compete not

[66] *Eighth Report*, 18 FCC Rcd at 14842-43, ¶¶ 133-134.

[67] Communities often in collaboration with government agencies, non-profits, or businesses, are developing community computer network systems. These networks are either free or inexpensive to use and the primary purpose of the networks is to support the local community. *See* <http://www.scn.org/commnet/> (last visited Mar. 15, 2004).

only in terms of the monthly charge, but also with the price and scope of ancillary services and promotions. The Commission seeks comment on whether carriers offer different ancillary services or promotional products and services in different geographic markets. What are these differences and why do they occur?

3. Absence of Coordinated Interaction and Unilateral Effects

43. Anti-competitive outcomes may result from two distinct types of firm conduct -- coordinated interaction (both tacit and explicit collusion) among two or more competitors, or the unilateral actions of a single firm.[68] In order to fully evaluate carrier conduct in the mobile telecommunications market, The Commission seeks comments on the potential for and likelihood of coordinated interaction and unilateral effects. Are coordinated effects likely in the mobile telecommunications market? If so, why? Do conditions in the mobile telecommunications market make unilateral price increases or other non-price unilateral effects likely? Also, The Commission seeks comment on any instances of potential coordinated interaction or unilateral effects in the United States' mobile telecommunications market.

C. Consumer Behavior in the Mobile Telecommunications Market

44. The ability and inclination of consumers to purchase a product or service or to change firms may influence market structure, carrier conduct, and market performance. When initially purchasing a product or service or changing providers, consumers may incur transactions costs in doing so. These transactions costs may in some instances make the initial purchase or subsequent switching of firms prohibitively expensive. The level of these costs may affect concentration measures, marketing and advertising, pricing plans, and penetration rates, among other metrics. Therefore, for the *Ninth Report,* the Commission intends to analyze and collect information on these consumer costs as they relate to the market structure, firm conduct, and market performance.

1. Access to Information on Mobile Telecommunications Services

45. It is apparent that wireless consumers are demanding more information on the availability and quality of mobile telecommunications services, and that numerous third parties have been responding to this demand by compiling and reporting such information. There are considerable sources of information available to consumers, including publications such as *Consumer Reports*, trade associations, marketing and consulting firms, and several web sites dedicated to giving consumers an overview and comparison of the mobile telephone services available in their area.[69] The Commission seeks comment on the development of consumer information sources for the mobile telecommunications market. Are there new avenues for consumers to gain information, such as retailers providing on-line and in-store comparisons of pricing plans, services, and handsets? Also, are consumers demanding information on mobile data services such as SMS, email, and Internet access? If so, are any sources providing consumers with this information?

2. Consumer Ability to Switch Service Providers

46. **Churn.** The Commission seeks comment on the use of churn rates as a tool in its

[68] Coordinated interaction can manifest itself in various forms, with firms simultaneously raising their prices above the competitive level being the most well known example. For a discussion of coordinated interaction *see DOJ/FTC Guidelines* at § 2.1. Unilateral effects involve the ability of a firm profitably to raise price by restricting its output or to undertake other anticompetitive actions on its own. For a discussion of unilateral effects see *DOJ/FTC Guidelines* at § 2.2.

[69] *See Eighth Report*, 18 FCC Rcd at 14826, ¶ 89.

analysis of consumer behavior in the mobile telecommunications market. Churn refers to the number of customers an operator loses over a given period of time.[70] Carriers may calculate churn using different methodologies. For example, when a customer moves from New York to Los Angeles, changes numbers but keeps the same provider, do any companies count this as churn? When a customer's service contract expires and the customer signs up for a new plan with the same provider, do any companies count this as churn? The Commission asks carriers to submit descriptions of how they calculate churn. Do the differences in how churn is calculated prohibit a meaningful comparison of churn figures across the wireless industry? In *the Eighth Report*, the Commission found that most carriers report company-wide churn rates between 1.5 and 3 percent per month.[71] How reliable are these churn estimates? Are there other sources of churn data available that should be included in the *Ninth Report*? Further, The Commission seeks sub-national or regional churn data, and churn data by demographic groups.

47. The Commission noted in the *Eighth Report* that customers have consistently indicated cost and network quality as the main reasons for changing providers.[72] Have the reasons consumer churn remained the same? If not, what are the reasons for consumer churn? The Commission also found that average monthly churn rates for mobile telephone service have remained fairly constant over the past three years.[73] Since the *Eighth Report*, has there been a change in the churn rate? If there has been a change, what is the magnitude of this change?

48. **Local Number Portability.** As of November 24, 2003, wireless carriers in the top 100 markets were required to permit subscribers to take their phone numbers with them to a new carrier in the same market area.[75] This process, called local number portability (LNP), is expected to make it easier for wireless subscribers to change carriers by eliminating some of the cost and inconvenience of having to change their phone numbers whenever they change to a different wireless carrier. Having to change to a new telephone number upon subscribing to a new wireless service provider can involve both direct and indirect switching costs. The wireless subscriber may have to change business cards and stationery, and must give the new number by whom he or she wishes to be reached in the future. Such costs make some subscribers more reluctant to switch carriers. The LNP requirement will expand beyond the top 100 markets beginning in May 2004 as wireless carriers in those markets make formal requests to other wireless carriers to provide this capability.[76] The Commission seeks comment on the effects of LNP on wireless competition and consumer behavior. Has wireless LNP caused wireless carriers to offer new services or features or to adjust their pricing strategies, either to attract new customers interested in porting their numbers from competing carriers or to induce their existing customers to stay? Has LNP affected wireless customer churn rates in the top 100 markets? If so, has the effect been significant?

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[70] For example, an operator might report an average monthly churn of 2 percent in a given fiscal quarter. In other words, on average, the operator lost 2 percent of its customers in each of the quarter's three months. At this rate, the operator would lose roughly 24 percent of its customers in a single year. *Eighth Report*, 18 FCC Rcd at 14817, ¶ 68.

[71] *Eighth Report*, 18 FCC Rcd at 14817, ¶ 68.

[72] *Eighth Report*, 18 FCC Rcd at 14817-8, ¶ 69.

[73] *Eighth Report*, 18 FCC Rcd at 14817, ¶ 68.

[75] *See* In the Matter of Verizon Wireless' Petition for Partial Forbearance from the CMRS Number Portability Obligation and Telephone Number Portability, *Memorandum Opinion and Order*, 17 FCC Rcd 41972, 14985-6, ¶ 31 (2002) ("*LNP Forbearance Order*").

[76] *LNP Forbearance Order*, 17 FCC Rcd at 14985-6, ¶ 31.

D. Mobile Telecommunications Market Performance

49. The structural and behavioral characteristics of a competitive market identified above are desirable not as ends in themselves, but rather as a means of bringing tangible benefits to consumers such as lower prices, higher quality, and greater choice of services. Such consumer outcomes are the ultimate test of effective competition. In order to determine if these goals are met and whether there is still effective competition in the market, the Commission intends to analyze various metrics including pricing levels and trends, subscriber growth and penetration, Minutes of Use ("MOU"), innovation and diffusion of services, and quality of service. Are there any other metrics that would add to its analysis of the mobile telecommunications market? Are these metrics available on a national or sub-national level?

1. Pricing Levels and Trends

50. **Pricing Trends.** The *Eighth Report* contained pricing data from a variety of sources, all of which indicated that the average price of mobile telephone service has been decreasing over time. The *Eighth Report* cited information from the United States Department of Labor's Bureau of Labor Statistics ("BLS"), Econ One, and trends based on CTIA data.[77] BLS began reporting a cellular telephone component of the Consumer Price Index ("CPI") in December 1997 ("cellular CPI"). In addition, using CTIA data, the Commission calculated a national average Revenue per Minute ("RPM") by dividing the Average Revenue per Unit ("ARPU") by MOUs.[78] The Commission used this RPM figure as an estimate of the average price per minute of mobile telephone service. In contrast to the Commission's estimate of RPM and BLS's cellular CPI, which attempt to capture national pricing trends, Econ One analyzes pricing plans for the top 25 United States' cities. The firm also calculates the average price of service across four different monthly usage levels and derives an average for all users.[79]

51. The Commission seeks comment on the use of these various pricing estimates as a tool in its analysis of the mobile telecommunications market, including to what extent price decreases are evidence of effective competition. The Commission asks for feedback on the sources of the pricing data used in the *Eighth Report* and request additional national and sub-national pricing data for the *Ninth Report*. Are there additional analyses that can be performed or conclusions that can be drawn from new or existing pricing data? The Commission also seeks comment on pricing trends for mobile data services offered by mobile telecommunications providers. Are there data on these services available on a national or sub-national level? Have prices of mobile data services fallen since their introduction? Are most data pricing plans bases on the amount of minutes used, or do they offer a flat rate for unlimited use? How are new or enhanced mobile data services such as location-based services, games, digital photos and downloadable music priced? Are there any reports or analyses that discuss pricing trends of mobile data services?

52. **Pricing in Rural Areas.** As described below, the Commission has identified a study by Econ One that compares mobile telephone pricing in urban versus rural areas. Are commenters aware of other pricing studies that look at urban versus rural or other sub-national mobile telecommunications pricing? Econ One completed a study that compared pricing in the 25 largest United States' cities (with an average population of 4.4 million) with 25 randomly-selected towns or cities (with an average population of 95,611) located in RSAs.[80] The Commission asks for additional information on whether there are meaningful pricing differences between urban and rural areas. To the extent that such differences exist, what are the reasons for such differences? Should additional analyses on the differences

[77] *Eighth Report*, 18 FCC Rcd at 14827-28, ¶¶ 91-93.

[78] *Eighth Report*, 18 FCC Rcd at 14828, ¶ 93.

[79] *Eighth Report*, 18 FCC Rcd at 14827, ¶ 91.

[80] *Seventh Report*, 17 FCC Rcd at 13023.

between urban and rural mobile telecommunications pricing be performed? What additional conclusions can be drawn, and what are the limitations of those conclusions?

53. Given the scarcity of studies that provide direct information on pricing, the Commission is interested in finding alternative ways of determining whether pricing in rural areas conform to national pricing plans. Are there other ways of studying this issue? Can an economic model be constructed that provides answers to this question in the absence of direct data on rural pricing? Are there existing studies or data sets that would give us the ability to explore this issue?

54. **Cost.** Since price changes may reflect corresponding changes in underlying costs rather than a change in the competitive environment, pricing data and trends can be a misleading indicator of the status of competition. One way to evaluate the connection between prices and costs is the Price-Cost margin.[81] In theory, a relatively narrow Price-Cost margin would be an indicator of effective competition. The Commission invites comments on the use of the Price-Cost margin to analyze the connection between prices and costs in the mobile telecommunications market. Are there other measures that the Commission should consider in evaluating the relationship between prices and costs in the mobile telecommunications market?

55. One possible estimate for the price component of the Price-Cost margin is RPM. The Commission seeks comment on the use of RPM as a proxy for pricing of mobile telecommunications services for the purpose of estimating the Price-Cost margin. The Commission also invites suggestions on alternative pricing metrics and sources of associated data that could be used for the purpose of providing a price-cost comparison. The Commission asks for submissions of RPM estimates for mobile data services or for mobile voice and data services combined.

56. Available cost studies for the mobile voice market that the Commission has identified focus narrowly on estimating the cost of terminating calls on mobile networks.[82] If, as one study concludes, there are no significant cost differences between origination and termination of calls on a mobile network in terms of network elements used,[83] then estimates of the cost of mobile call termination could be used to approximate the network costs of mobile voice services; however, since call termination is a wholesale activity, estimates of the cost of call termination generally do not include certain non-network retailing costs such as customer billing costs and advertising and marketing expenses. The Commission seeks comment on the adjustments that should be made to the network cost estimates to take into account non-network costs. Does the provision of mobile data services affect network and non-network costs, and, if so, how? The Commission also invites estimates of the impact of the deployment of next generation advanced technologies on the per-minute cost of mobile telecommunications traffic.

57. **Roaming.** The Commission also seeks data on the availability of roaming for wireless customers. To what extent do carriers have agreements that enable their customers to use automatic roaming throughout the United States? Are there geographic areas in which some carriers do not have automatic roaming agreements? If so, where are those areas and is there any correlation to the number of

[81] The Price-Cost margin is (Price – Marginal Costs)/Price. *See* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 246 (3rd ed., Addison, Wellsley, Longman, Inc., 1999).

[82] For example, estimates of the cost of mobile call termination have been made available by Sprint PCS for several of its U.S. markets and by OFTEL for the U.K. mobile market. The methodology and results of the Sprint PCS cost study are summarized in Jonathan Chambers, *Costs of Terminating Traffic on Mobile Networks*, Callahan Associates International LLC., Aug. 28, 2001. OFTEL's cost methodology and estimates of the cost of mobile termination are summarized in Olivier Bomsel, Martin Cave, Gilles Le Blanc, and Karl-Heinz Neumann, *How Mobile Termination Charges Shape the Dynamics of the Telecom Sector*, Final Report, July 9, 2003, at 45-49.

[83] *See* Europe Economics, *Cost Structures in Mobile Networks and their Relationship to Prices*, Final Report for the European Commission, Nov. 28, 2001, at 38, 46-47.

wireless providers operating in those areas? Are rural customers more affected than non-rural customers? How many customers use manual roaming? Where are those customers located when they use manual roaming, and how frequent is their usage? How has the deployment of mobile data services affected the provision of roaming service? Are consumers able to access mobile data services when roaming?

58. **Average Revenue Per Unit.** Average monthly revenue per subscriber is another key metric presented in past *CMRS Reports*. One source of this metric is the industry-wide ARPU figure reported by CTIA in its semi-annual mobile telephone survey.[84] In addition, many carriers report their individual ARPU figures periodically in their SEC filings. The Commission seeks comment on the use of ARPU as a metric in its analysis of the mobile telecommunications industry. Are additional ARPU data available that should be considered, in particular data depicting whether and how ARPU varies by region and/or demographic group? Are there additional analyses that can be performed or conclusions that can be drawn in the *Ninth Report* from new or existing data?

59. CTIA reported that ARPU declined almost continuously from 1987 to 1998, going from a peak of $98.02 in December 1988 to a low of $39.43 in December 1998.[85] However, since 1999, ARPU has been increasing, rising to $48.40 in December 2002.[86] The *Eighth Report* stated that the growth in ARPU might be the result of a variety of factors, including increased usage offsetting per-minute price declines, as well as the selection of higher-priced monthly calling plans by consumers.[87] The Commission requests from commenters additional input on the possible causes for the recent rise in ARPU, as well as additional data that may support various hypotheses. What role, if any, do changes in ARPU have on competition?

2. Quantity of Services Purchased

60. **Subscriber Growth.** Since the *Seventh Report*, the Commission has estimated the number of United States' subscribers using NRUF data. The Commission estimates the total number of mobile telephone subscribers by using assigned telephone numbers in the NRUF data as a proxy for subscribers.[88] In the *Eighth Report*, the Commission estimated that there were 141.8 million subscribers in the United States as of December 31, 2002.[89] NRUF data, however, do not include information on the actual subscribers. Therefore, the Commission requests information on subscribers that would assist in a greater understanding of the mobile telecommunications inventory, such as penetration rates by age groups and/or household penetration rates.

61. Prior to the *Seventh Report*, the Commission relied on estimated national subscribership data from a semi-annual survey, started in 1985, conducted by CTIA.[90] The CTIA estimate for December

[84] *Eighth Report*, 18 FCC Rcd at 14816-17, ¶ 67.

[85] *Eighth Report*, 18 FCC Rcd at 14816-17, ¶ 67.

[86] *Eighth Report*, 18 FCC Rcd at 14817, ¶ 67.

[87] *Eighth Report*, 18 FCC Rcd at 14817, ¶ 67.

[88] *Eighth Report*, 18 FCC Rcd at 14813, ¶ 58. An assigned number is one that is in use by an end-user customer. *Eighth Report*, 18 FCC Rcd at 14789-90, ¶10. Carriers also report other phone number categories, including: intermediate – numbers given to other companies; aging – numbers held out of circulation; administrative – numbers for internal uses; reserved – numbers reserved for later activation; and available – numbers available to be assigned. Assigned numbers are not necessarily from facilities-based carriers. A reseller can assign a number to an end user. This does not double-count in the assigned total, since the facilities-based carrier only counts that number as an "intermediate" number given to the reseller. *Eighth Report*, 18 FCC Rcd at 14813 n.210.

[89] *See Eighth Report*, 18 FCC Rcd at 14813, ¶ 59.

[90] CTIA's survey is voluntary; it does not receive information from all carriers and must therefore estimate the subscribership of carriers not reporting. For example, in the survey for the period ending June 30, 2001, subscribers

(continued....)

31, 2002 was 140.8 million subscribers, less than a 1.0% difference from the Commission's NRUF estimate.[91] The Commission had reported CTIA's semi-annual estimates in order to present time series information on subscribership growth. The Commission asks for comment whether to continue to present these data.

62. **Sub-National Penetration Rates.** For purposes of the *Eighth Report*, the Commission chose to use EAs as the geographic unit for its sub-national subscribership analysis using NRUF data.[92] EAs, which are defined by the United States Department of Commerce, consist of one or more economic nodes and the surrounding areas that are economically related to the node.[93] The main factor in determining the economic relationship between the economic node(s) and the surrounding areas is commuting patterns, so that each EA includes, as far as possible, the place of work and the place of residence of its labor force. While wireless carriers have considerable discretion in how they assign telephone numbers across the rate centers in their operating areas, they generally assign numbers to subscribers from rate centers in the same EAs in which the subscribers live.

63. The Commission asks for comment on how to determine which geographic area or areas should be used to calculate mobile telecommunications subscribership and penetration rates for the *Ninth Report*.[94] The Commission requests comment on the appropriateness of using EAs for such calculations. Would other geographic areas be appropriate to use in place of or in addition to EAs, such as states, MTAs, BTAs, CMAs, or counties, noting the limitations of the NRUF data discussed above? In addition, are there other ways to interpret existing national and sub-national subscribership data for purposes of the *Ninth Report*? Also, are there data on either a national or sub-national basis on the number of mobile telecommunications customers that use mobile data services?

64. **Minutes of Use.** To analyze mobile telecommunications usage, the Commission has used MOUs as a key metric in previous *CMRS Reports*. The *Eighth Report* includes MOU estimates from CTIA, Paul Kagan and Associates, and J.D. Powers & Associates.[95] All of these sources showed MOUs increasing substantially during 2001. The Commission seeks comment on the use of MOUs as an indicator of the demand for mobile telecommunications services. For purposes of the *Ninth Report*, the Commission asks for comment on the sources of the MOU data presented in the *Eighth Report* and request additional MOU data. In addition, should the Commission perform other analyses or draw additional conclusions from new or existing data? All of the MOU sources presented in the *Eighth Report* estimate MOUs on a national basis. In order to increase the granularity of its analysis for the *Ninth Report*, the Commission requests data on MOUs on a sub-national basis and/or broken down by various demographic groups.

(...continued from previous page)
captured through survey response made up 109,674,358 out of a total subscriber estimate of 118,397,734, a difference of 8 percent (8,723,376). *Eighth Report*, 18 FCC Rcd at 14813 n.211.

[91] *See Eighth Report*, 18 FCC Rcd at 14813-14, ¶¶ 59-60.

[92] *See Eighth Report*, 18 FCC Rcd at 14815, ¶ 62.

[93] EAs are defined by the U. S. Department of Commerce's Bureau of Economic Analysis. *See Seventh Report* 17 FCC Rcd at 13005 n.122.

[94] The use of any geographic area to calculate mobile telecommunications subscribership and penetration rates for purposes of the *Ninth Report* does not imply that the same geographic area will be used in any other Commission proceedings to define the relevant geographic markets. Such proceedings could include an application for a license transfer and may present facts pointing to a narrower or broader geographic market definition than any used, suggested, or implied in the *CMRS Reports*.

[95] *See Eighth Report*, 18 FCC Rcd at 14816, ¶ 65.

3. Variety, Innovation, and Diffusion of Service Offerings

65. The Commission observed in the *Eighth Report* that the continued rollout of differentiated service offerings indicated a competitive marketplace.[96] In the mobile telephone sector, the Commission is able to observe independent pricing behavior, in the form of continued experimentation with varying pricing levels and structures, for varying service packages, with various available handsets and policies on handset pricing. AT&T Wireless's Digital One Rate ("DOR") plan, introduced in May 1998, is one notable example of an independent pricing action that altered the market and benefited consumers. Today, all of the nationwide operators offer some version of DOR pricing plan in which customers can purchase a bucket of minutes to use on a nationwide or nearly nationwide network without incurring roaming or long distance charges. Another trend in mobile telephone pricing has been the introduction of on-network, or "on-net," national pricing plans.[97] These plans are similar to DOR plans, with the exception that subscribers incur roaming charges when they use their phones off the carrier's network ("off-net"). In addition, some mobile wireless carriers offer service plans designed to compete directly with wireline local telephone service. As reported in the *Eighth Report*, the largest of such providers, Leap, under its "Cricket" brand, offers mobile telephone service in 40 markets in 20 states.[98] Leap's service allows subscribers to make unlimited local calls and receive calls from anywhere for about $30 per month.[99] Since the *Eighth Report*, have providers introduced new pricing plans and/or services to differentiate themselves? What other sorts of plans are being used to distinguish service providers and/or serve particular market segments?

4. Quality of Service

66. In addition to competing on price, in a competitive market firms also compete on the basis of service quality.[100] Mobile telecommunications service is an experience good, and therefore the quality of the product is unknown until the consumer actually uses it. Further, service quality in this market is dependent on when and where the service is used. The Commission found in the *Eighth Report* that carriers have been aggressively building and upgrading their networks with digital technology.[101] This has resulted in improved voice quality and additional calling features to consumers, as well as higher capacity for operators, thereby allowing more customers to access the network and use their phones at the same time.[102] However, some reports indicate that consumers perceive that there is a problem with service quality.[103] Service quality issues may be a result of market structure or carrier conduct.[104] In some cases, however, service quality issues may be due to factors that are not under a firm's control or influence.

67. In order to analyze quality of service in the mobile telecommunications market, specific

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[96] *See Eighth Report*, 18 FCC Rcd at 14828, ¶ 94.

[97] *See Eighth Report*, 18 FCC Rcd at 14828, ¶ 95.

[98] *See Eighth Report*, 18 FCC Rcd at 14833, ¶ 105.

[99] *See Eighth Report*, 18 FCC Rcd at 14833, ¶ 105.

[100] *See Eighth Report*, 18 FCC Rcd at 14824, ¶ 85.

[101] *See Eighth Report*, 18 FCC Rcd at 14824, ¶ 86.

[102] *See Eighth Report*, 18 FCC Rcd at 14824, ¶ 86.

[103] *FCC Should Include Call Quality in its Annual Report on Competition in Mobile Phone Services*, General Accounting Office, GAO-03-501, Apr. 2003; Consumer Reports, *Three Steps to Better Cellular*, Feb. 2003, pages 15-17.

[104] *See* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 319 (3rd ed., Addison, Wellsley, Longman, Inc., 1999); Jean Tirole, *Theory of Industrial Organization*, 115 (MIT Press, Cambridge, MA, 1988.).

service problems need to be identified. However, information on service issues - whether from consumer surveys, marketing reports, or other sources - generally convey only what the existing problems are and do not in themselves indicate non-competitive behavior. Quality of service data must be analyzed along with the metrics for market structure, carrier conduct, consumer behavior, and market performance in order to evaluate the underlying causes, their significance, and whether the current level of service quality has an impact on competition in the market.

68. The Commission seeks comment on service quality in the mobile telecommunications market. Does objective data on quality of service exist? Are there any consumer surveys on service quality in the mobile telecommunications market? How reliable are the data collected from these consumer surveys? Also, what other sources provide information on service quality in the mobile telecommunications market, and how reliable are these sources? How do market structure and carrier conduct affect service quality? Are there other metrics that should be used to analyze service quality as it relates to competitive behavior? In addition, The Commission seeks comment on whether LNP affects the quality of services offered by wireless telecommunication providers.

5. Wireless – Wireline Competition

69. In the Eighth Report, the Commission noted that there is evidence that consumers are substituting wireless service for traditional wireline communications.[106] However, it appears that only a small percent of wireless customers use their wireless phones as their only phone, and that relatively few wireless customers have "cut the cord" in the sense of canceling their subscription to wireline telephone service.[108] The Eighth Report also discussed the effects of mobile telephone service on the operational and financial results of companies that offer wireline services. Such effects include a decrease in the number of residential access lines, a drop in long distance revenues, and a decline in payphone profits[110]. More recently, the Commission has affirmed that the LNP rules that went into effect on November 24, 2003 require "intermodal" number porting between wireline and wireless carriers, thus enabling a wireline customer to port his or her telephone number to a wireless carrier serving the customer's local calling area.[112] Given these developments, the Commission asks for comment on the extent to which mobile telephone service competes with wireline service. Has the introduction of intermodal LNP affected consumer behavior or had any impact on wireless-wireline competition? Are there any other new developments in wireless-wireline competition that have occurred since the Eighth Report? What are the major reasons for these developments? What effect have they had on the provision of telecommunications services other than wireless?

70. In order to track and analyze competition between mobile telecommunications and wireline services more effectively, the Commission requests data on: 1) the number of mobile telecommunications subscribers who do not subscribe to residential wireline service; 2) the percentage of consumers' total monthly voice communication minutes that are made from mobile phones; 3) the percentage of consumers' total monthly long distance minutes that are made from mobile phones; 4) the percentage of mobile telecommunications subscribers' calls and minutes that occur in their homes using their mobile phones; 5) the percentage of both mobile telecommunications and wireline calls and minutes that terminate on mobile phones; and 6) demographic data on which groups of consumers have allocated a substantial portion of their voice communications to mobile telecommunications service. Should the Commission gather additional data, perform additional analyses, or draw new conclusions on wireless-

[106] *See Eighth Report*, 18 FCC Rcd at 14831, ¶ 102.

[108] *See Eighth Report*, 18 FCC Rcd at 14831, ¶ 102.

[110] *See Eighth Report*, 18 FCC Rcd at 14832, ¶ 103.

[112] Telephone Number Portability, CC Docket No. 95-116, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd. 23,697 (2003).

wireline competition?

E. International Comparisons of Mobile Telecommunications

71. The *Eighth Report* compared the mobile telephone sectors in the United States, Western Europe, and parts of the Asia-Pacific by examining a number of performance measures, including penetration levels, subscriber growth, MOUs, and pricing. The scope of international comparisons in the *Eighth Report* and previous *CMRS Reports* has been constrained by the availability of comparable international data. For the purposes of the *Ninth Report*, The Commission seeks data to update and possibly expand upon these international comparisons. The international comparisons in the *Eighth Report* were based on various sources of data that were generally current as of the second half of 2002.[113] The Commission requests suggestions on sources of data for updating international comparisons of penetration levels, subscriber growth, and usage for the year 2003. The Commission also invites suggestions on additional performance measures and associated data sources for comparing mobile telecommunications sectors in the United States and other countries.

III. PROCEDURAL MATTERS

A. *Ex Parte* Presentations

72. This is an exempt proceeding in which *ex parte* presentations are permitted (except during the Sunshine Agenda period) and need not be disclosed.[117]

B. Filing of Comments and Reply Comments

73. The Commission invites comment on the issues and questions set forth above. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before April 25, 2004, and reply comments on or before May 10, 2004. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

74. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, United States Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet email. To get filing instructions for email comments, commenters should send an email to ecfs@fcc.gov, and should include the following words in the body of the message: "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four (4) copies of each filing. Parties choosing to submit, as part of their comments, map files in response to requests in ¶¶ 1-14, ¶ 1, *supra*, should submit a CD (compact disc) containing one copy of the maps of their service areas, with the various distinctions described above, in one of the following formats: MapInfo table (.tab), Tagged Image Format (.TIF), or Shaped file (.shp). If you have questions about submitting map files, please contact Benjamin Freeman at (202) 418-0628. Paper filings and CDs containing map files can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight United States Postal Service mail. The

[113] *See Eighth Report*, 18 FCC Rcd at 14867-75, ¶¶ 192-215.

[117] 47 C.F.R. § 1.1204(b)(1).

Commission's contractor, Natek, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than United States Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. United States Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission. Parties also should send four (4) paper copies of their filings to Rachel Kazan, Federal Communications Commission, Room 6126, 445 12th Street, S.W., Washington, DC 20554.

IV. ORDERING CLAUSES

75. Accordingly, IT IS ORDERED that, pursuant to the authority contained in Sections 4(i), 4(j), and 403 of the Communications Act of 1934, as amended, this Notice of Inquiry is ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Notice of Inquiry, WT Docket No. 04-111.

Pursuant to the mandate of section 332(c)(1)(C) of the Communications Act, the Commission annually submits a report to Congress analyzing "whether or not there is effective competition" in the CMRS industry ("the Competition Report"). In last year's report to Congress, the Commission affirmatively concluded that the CMRS industry had become "effectively competitive."[118] This is not a surprising conclusion given the dramatic increase in choice and decrease in prices. It would therefore seem appropriate to start this year's inquiry with a presumption of effective competition. But we don't. We start from scratch as if there has never been any data gathered about the nature of the wireless industry, the competitiveness of the market, and the wide variety of service offerings available to consumers.

It is not that I object to gathering useful data to inform our decision making efforts and to respond to Congress' mandate. At the same time, however, we should not have to reinvent the wheel year after year. Given the maturity of the wireless industry and last year's finding perhaps the question we should have asked this year is whether any changes over the past 12 months would lead us to conclude that the CMRS industry is no longer effectively competitive. We could have further pointed out that there have been no major industry mergers and that the Commission recently implemented wireless number portability in an effort to increase competition and choice in the wireless sector.

Virtually everyone is in agreement that the CMRS industry is a shining example of what a well-functioning market can achieve when not hindered by unnecessary regulation. In last year's Competition Report, the Commission found that the wireless industry continued to show significant growth despite a difficult economic environment. There was continuing innovation and carriers offered a wider variety of service offerings, all the while reducing prices charged to consumers. Because of competition, per-minute prices for mobile calling have dropped steadily for nearly a decade, declining *76%* since 1994 — *30%* in the past 3 years. At the same time, carriers have invested over ***$126 billion*** in their networks, thus improving service, creating jobs, and spurring economic growth.

Perhaps most significant, as the Commission determined last year, there is no dominant provider in the wireless sector. Instead, vigorous competition has produced a marketplace with six nationwide operators and several major regional providers. Wireless carriers have nimbly responded to consumer preferences, and as a result, the public has increased its use of and reliance on wireless networks for basic voice communications, for news and information through Internet services, and for public safety.

In light of these facts, our inquiry should begin with a recognition of the robustly competitive state of the wireless sector. Instead we go beyond our inquiry of last year and ask for data regarding the business and strategy decisions of CMRS providers. For example, we seek information on advertising by CMRS providers. While such questions might be relevant for an industry that is concentrated or one where there is a dominant service provider, that is not the situation we find ourselves in. Similarly, the NOI asks for substantial information on service quality. While the question is relevant for consumers deciding which carrier to select, the data will have no bearing on whether the market remains effectively

[118] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 19993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Eighth Report, 18 FCC Rcd 14783, para. 5 (2003).

competitive. There are other examples of questions within the NOI that I believe go beyond the scope of our mandate under Section 332(c)(1)(C), but I will not belabor the point. I simply outline my concerns to point out that government sometimes gets carried away with data gathering at the expense of focusing on real problems and real solutions. I have no doubt that the information we gather will be interesting but I am not sure that is a sufficient reason to burden staff resources that could be better spent on other projects, or to burden service providers that could better spend their resources competing in the marketplace.

STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

Re: Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Notice of Inquiry

This is an important Report. It is used in our Commission's proceedings on general regulatory reforms and individual mergers. The data that we rely on for this report is incomplete, as has been noted in the Report itself for the past several years. Given our reliance on the Report and our lack of data on important issues such as churn, rural pricing, and the presence or absence of head-to-head competition, we should strive to improve our data gathering. Rigorous and non-arbitrary government decision making demands that we obtain a more complete picture of the marketplace than we have. And I should note that this process does not currently require carriers to file any data. We rely on voluntary filings and our own investigation.

But even if we Commissioners did not believe that we need to gather data each year, we would still be required to undertake this task and to perform a rigorous analysis of the data we gather. That is because Congress told us to do so in the Telecommunications Act. Congress did not say to make assumptions about competitiveness or to rely on last year's data. It compelled us to "review competitive market conditions with respect to commercial mobile services" and to perform an "analysis of those conditions." We should not exchange our judgment of where to place Commission resources for Congress's judgment. So, although there may be changes to this item that I would make, and other data that I would seek, I congratulate the staff for their hard work in putting together this NOI so that we can fulfill our responsibility.