

adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁶⁷ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁶⁸ Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁶⁹ SBA approval of these definitions is not required.⁷⁰ In 2000, the Commission conducted an auction of 52 Major Economic Area (“MEA”) licenses.⁷¹ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced and closed in 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.⁷²

22. *Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.⁷³ On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.⁷⁴ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

23. *Lower 700 MHz Band Licenses.* The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding

⁶⁷ Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, *Second Report and Order*, 15 FCC Rcd 5299 (2000). Service rules were amended in 2007, but no changes were made to small business size categories. See Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket 03-264, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 06-169, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, *Report and Order and Further Notice of Proposed Rulemaking*, 22 FCC Rcd 8064 (2007).

⁶⁸ *Id.* at 5343 ¶ 108.

⁶⁹ *Id.*

⁷⁰ *Id.* At 5343 ¶ 108 n.246 (for the 746-764 MHz and 776-704 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain Small Business Administration approval before adopting small business size standards).

⁷¹ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

⁷² See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

⁷³ *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

⁷⁴ See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (WTB 2008).

credits.⁷⁵ The Commission has defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁷⁶ A very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁷⁷ Additionally, the Lower 700 MHz Band has a third category of small business status that may be claimed for Metropolitan/Rural Service Area (MSA/RSA) licenses. The third category is entrepreneur, which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.⁷⁸ The SBA has approved these small size standards.⁷⁹ An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.⁸⁰ A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 CMA licenses.⁸¹ Seventeen winning bidders claimed small or very small business status and won sixty licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.⁸²

24. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services (PCS), and specialized mobile radio (SMR) telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁸³ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁸⁴ According to *Trends in Telephone Service* data, 434 carriers reported that they were engaged in wireless telephony.⁸⁵ Of these, an estimated 222 have 1,500 or fewer employees and 212 have more than 1,500 employees.⁸⁶ We have estimated that 222 of these are small under the SBA small business size standard.

25. *Air-Ground Radiotelephone Service.* The Commission has previously used the SBA's small business definition applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity

⁷⁵ See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022 (2002).

⁷⁶ *Id.* at 1087-88 ¶ 172.

⁷⁷ *Id.*

⁷⁸ *Id.* at 1088 ¶ 173.

⁷⁹ See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

⁸⁰ See "Lower 700 MHz Band Auction Closes," *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

⁸¹ See "Lower 700 MHz Band Auction Closes," *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

⁸² *Id.*

⁸³ 13 C.F.R. § 121.201, NAICS code 517210.

⁸⁴ *Id.*

⁸⁵ "Trends in Telephone Service" at Table 5.3.

⁸⁶ "Trends in Telephone Service" at Table 5.3.

employing no more than 1,500 persons.⁸⁷ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million.⁸⁸ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.⁸⁹ These definitions were approved by the SBA.⁹⁰ In 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction 65). Later in 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

26. *Aviation and Marine Radio Services.* There are approximately 26,162 aviation, 34,555 marine (ship), and 3,296 marine (coast) licensees.⁹¹ The Commission has not developed a small business size standard specifically applicable to all licensees. For purposes of this analysis, we will use the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.⁹² We are unable to determine how many of those licensed fall under this standard. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 62,969 licensees that are small businesses under the SBA standard.⁹³ In 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For this auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.⁹⁴ Further, the Commission made available

⁸⁷ 13 C.F.R. § 121.201, NAICS codes 517210.

⁸⁸ Amendment of Part 22 of the Commission’s Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review—Amendment of Parts 1, 22, and 90 of the Commission’s Rules, Amendment of Parts 1 and 22 of the Commission’s Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service, WT Docket Nos. 03-103, 05-42, *Order on Reconsideration and Report and Order*, 20 FCC Rcd 19663, paras. 28–42 (2005).

⁸⁹ *Id.*

⁹⁰ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, FCC (filed Sept. 19, 2005).

⁹¹ Vessels that are not required by law to carry a radio and do not make international voyages or communications are not required to obtain an individual license. See Amendment of Parts 80 and 87 of the Commission’s Rules to Permit Operation of Certain Domestic Ship and Aircraft Radio Stations Without Individual Licenses, *Report and Order*, WT Docket No. 96-82, 11 FCC Rcd 14849 (1996).

⁹² 13 C.F.R. § 121.201, NAICS code 517210.

⁹³ A licensee may have a license in more than one category.

⁹⁴ Amendment of the Commission’s Rules Concerning Maritime Communications, PR Docket No. 92-257, *Third Report and Order and Memorandum Opinion and Order*, 13 FCC Rcd 19853 (1998).

Automated Maritime Telecommunications System (“AMTS”) licenses in Auctions 57 and 61.⁹⁵ Winning bidders could claim status as a very small business or a small business. A very small business for this service is defined as an entity with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years, and a small business is defined as an entity with attributed average annual gross revenues of more than \$3 million but less than \$15 million for the preceding three years.⁹⁶ Three of the winning bidders in Auction 57 qualified as small or very small businesses, while three winning entities in Auction 61 qualified as very small businesses.

27. *Fixed Microwave Services.* Fixed microwave services include common carrier,⁹⁷ private-operational fixed,⁹⁸ and broadcast auxiliary radio services.⁹⁹ At present, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁰⁰ The Commission does not have data specifying the number of these licensees that have no more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA’s small business size standard. Consequently, the Commission estimates that there are 22,015 or fewer common carrier fixed licensees and 61,670 or fewer private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies proposed herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

28. *Local Multipoint Distribution Service.* Local Multipoint Distribution Service (LMDS) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.¹⁰¹ The auction of the 986 LMDS- licenses began and closed in 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.¹⁰² An additional small

⁹⁵ See “Automated Maritime Telecommunications System Spectrum Auction Scheduled for September 15, 2004, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures,” *Public Notice*, 19 FCC Rcd 9518 (WTB 2004); “Auction of Automated Maritime Telecommunications System Licenses Scheduled for August 3, 2005, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures for Auction No. 61,” *Public Notice*, 20 FCC Rcd 7811 (WTB 2005).

⁹⁶ 47 C.F.R. § 80.1252.

⁹⁷ See 47 C.F.R. Part 101, Subparts C and I.

⁹⁸ See 47 C.F.R. Part 101, Subparts C and H.

⁹⁹ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission’s Rules. See 47 C.F.R. Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

¹⁰⁰ 13 C.F.R. § 121.201, NAICS code 517210.

¹⁰¹ See Local Multipoint Distribution Service, *Second Report and Order*, 12 FCC Rcd 12545 (1997).

¹⁰² *Id.*

business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁰³ The SBA has approved these small business size standards in the context of LMDS auctions.¹⁰⁴ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. In 1999, the Commission re-auctioned 161 licenses; were 32 small and very small businesses winning that won 119 licenses.

29. *Offshore Radiotelephone Service.* This service operates on several ultra high frequencies (“UIIF”) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁰⁵ There is presently 1 licensee in this service. We do not have information whether that licensee would qualify as small under the SBA’s small business size standard for Wireless Telecommunications Carriers (except Satellite) services.¹⁰⁶ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁰⁷

30. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁰⁸ An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁰⁹ The SBA has approved these small business size standards.¹¹⁰ The auction of the 2,173 39 GHz licenses began and closed in 2000. The 18 bidders who claimed small business status won 849 licenses. -

31. *218-219 MHz Service.* The first auction of 218-219 MHz spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Area (“MSAs”). Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.¹¹¹ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding \$15 million for the

¹⁰³ See *id.*

¹⁰⁴ See Letter to Dan Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998).

¹⁰⁵ This service is governed by Subpart I of Part 22 of the Commission’s rules. See 47 C.F.R. §§ 22.1001-22.1037.

¹⁰⁶ 13 C.F.R. § 121.201, NAICS code 517210.

¹⁰⁷ *Id.*

¹⁰⁸ See Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, *Report and Order*, 63 Fed. Reg. 6079 (Feb. 6, 1998).

¹⁰⁹ *Id.*

¹¹⁰ See Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

¹¹¹ Implementation of Section 309(j) of the Communications Act – Competitive Bidding, PP Docket No. 93-253, *Fourth Report and Order*, 59 Fed. Reg. 24947 (May 13, 1994).

preceding three years.¹¹² A very small business is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding \$3 million for the preceding three years.¹¹³ The SBA has approved of these definitions.¹¹⁴ A subsequent auction is not yet scheduled. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this analysis that in future auctions, many, and perhaps most, of the licenses may be awarded to small businesses.

32. *Incumbent 24 GHz Licensees.* This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of Wireless Telecommunications Carriers (except Satellite). This category provides that such a company is small if it employs no more than 1,500 persons.¹¹⁵ The broader census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent¹¹⁶ and TRW, Inc. It is our understanding that Teligent and its related companies have fewer than 1,500 employees, though this may change in the future. TRW is not a small entity. There are approximately 122 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 122 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

33. *Future 24 GHz Licensees.* With respect to new applicants in the 24 GHz band, we have defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not in excess of \$15 million.¹¹⁷ "Very small business" in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.¹¹⁸ The SBA has approved these definitions.¹¹⁹ The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

34. *1670-1675 MHz Services.* An auction for one license in the 1670-1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

¹¹² Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, WT Docket No. 98-169, *Report and Order and Memorandum Opinion and Order*, 64 Fed. Reg. 59656 (Nov. 3, 1999).

¹¹³ Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service, WT Docket No. 98-169, *Report and Order and Memorandum Opinion and Order*, 64 Fed. Reg. 59656 (Nov. 3, 1999).

¹¹⁴ See *Alvarez to Phythyon Letter 1998*.

¹¹⁵ 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

¹¹⁶ Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

¹¹⁷ Amendments to Parts 1,2, 87 and 101 of the Commission's Rules to License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16967 (2000); see also 47 C.F.R. § 101.538(a)(2).

¹¹⁸ Amendments to Parts 1,2, 87 and 101 of the Commission's Rules to License Fixed Services at 24 GHz, *Report and Order*, 15 FCC Rcd 16934, 16967 (2000); see also 47 C.F.R. § 101.538(a)(1).

¹¹⁹ See Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Gary M. Jackson, Assistant Administrator, SBA (July 28, 2000).

35. *3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz). As of September 2009, more than 1,080 licenses have been granted and more than 4,870 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

36. *Internet Service Providers.* The 2007 Economic Census places these firms, whose services might include voice over Internet protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own telecommunications facilities (*e.g.*, cable and DSL ISPs), or over client-supplied telecommunications connections (*e.g.*, dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,¹²⁰ which has an SBA small business size standard of 1,500 or fewer employees.¹²¹ The latter are within the category of All Other Telecommunications,¹²² which has a size standard of annual receipts of \$25 million or less.¹²³ The most current Census Bureau data for all such firms, however, are the 2002 data for the previous census category called Internet Service Providers.¹²⁴ That category had a small business size standard of \$21 million or less in annual receipts, which was revised in late 2005 to \$23 million. The 2002 data show that there were 2,529 such firms that operated for the entire year.¹²⁵ Of those, 2,437 firms had annual receipts of under \$10 million, and an additional 47 firms had receipts of between \$10 million and \$24, 999,999.¹²⁶ Consequently, we estimate that the majority of ISP firms are small entities.

37. The ISP industry has changed dramatically since 2002. The 2002 data cited above may therefore include entities that no longer provide Internet access service and may exclude entities that now provide such service. To ensure that this IRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing Internet access service.

38. We note that, although we have no specific information on the number of small entities that provide Internet access service over unlicensed spectrum, we include these entities in our IRFA.

39. *Satellite Telecommunications and All Other Telecommunications.* These two economic census categories address the satellite industry. The first category has a small business size standard of

¹²⁰ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

¹²¹ 13 C.F.R. § 121.201, NAICS code 517110 (updated for inflation in 2008).

¹²² U.S. Census Bureau, 2007 NAICS Definitions, "517919 All Other Telecommunications"; <http://www.census.gov/naics/2007/def/ND517919.HTM#N517919>.

¹²³ 13 C.F.R. § 121.201, NAICS code 517919 (updated for inflation in 2008).

¹²⁴ U.S. Census Bureau, "2002 NAICS Definitions: 518111 Internet Service Providers"; <http://www.census.gov/epcd/naics02/def/NDEF518.HTM>.

¹²⁵ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4, NAICS code 518111 (issued Nov. 2005).

¹²⁶ An additional 45 firms had receipts of \$25 million or more.

\$15 million or less in average annual receipts, under SBA rules.¹²⁷ The second has a size standard of \$25 million or less in annual receipts.¹²⁸ The most current Census Bureau data in this context, however, are from the (last) economic census of 2002, and we will use those figures to gauge the prevalence of small businesses in these categories.¹²⁹

40. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”¹³⁰ For this category, Census Bureau data for 2002 show that there were a total of 371 firms that operated for the entire year.¹³¹ Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999.¹³² Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

41. The second category of All Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.”¹³³ For this category, Census Bureau data for 2002 show that there were a total of 332 firms that operated for the entire year.¹³⁴ Of this total, 303 firms had annual receipts of under \$10 million and 15 firms had annual receipts of \$10 million to \$24,999,999.¹³⁵ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

42. *Unlicensed Devices.* In this category, regulatees use devices as permitted on an unlicensed basis under the provisions of Part 15 of the Commission's Rules. We do not have an accurate count of the number of regulatees utilizing this capability. Since 2007, the Census Bureau has placed wireless firms within the new, broad, economic census category Wireless Telecommunications Carriers (except Satellite). Prior to that time, such firms were within the now-superseded category of “Paging” and “Cellular and Other Wireless Telecommunications.” Under the present and prior categories, the SBA has

¹²⁷ 13 C.F.R. § 121.201, NAICS code 517410.

¹²⁸ 13 C.F.R. § 121.201, NAICS code 517919.

¹²⁹ 13 C.F.R. § 121.201, NAICS codes 517410 and 517910 (2002).

¹³⁰ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/naics/2007/def/ND517410.HTM> (last visited Oct. 21, 2009).

¹³¹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” tbl. 4, NAICS code 517410 (rel. Nov. 2005).

¹³² *Id.* An additional 38 firms had annual receipts of \$25 million or more.

¹³³ U.S. Census Bureau, 2007 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/naics/2007/def/ND517919.HTM#N517919> (last visited Oct. 21, 2009).

¹³⁴ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” tbl. 4, NAICS code 517910 (issued Nov. 2005).

¹³⁵ *Id.* An additional 14 firms had annual receipts of \$25 million or more.

deemed a wireless business to be small if it has 1,500 or fewer employees. Because Census Bureau data are not yet available for the new category, we will estimate small business prevalence using the prior categories and associated data. For the category of Paging, data for 2002 show that there were 807 firms that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more. For the category of Cellular and Other Wireless Telecommunications, data for 2002 show that there were 1,397 firms that operated for the entire year. Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more. Thus, we estimate that the majority of wireless firms are small.

43. *Part 15 Device Manufacturers.* The Commission has not developed a definition of small entities applicable to unlicensed communications devices manufacturers. Therefore, we will utilize the SBA definition applicable to Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”¹³⁶ The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.¹³⁷ According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.¹³⁸ Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to 999.¹³⁹ Thus, under this size standard, the majority of firms can be considered small.

44. *Telephone Apparatus Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.”¹⁴⁰ The SBA has developed a small business size standard for Telephone Apparatus

¹³⁶ U.S. Census Bureau, 2002 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

¹³⁷ 13 C.F.R. § 121.201, NAICS code 334220.

¹³⁸ U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

¹³⁹ *Id.* An additional 18 establishments had employment of 1,000 or more.

¹⁴⁰ U.S. Census Bureau, 2002 NAICS Definitions, “334210 Telephone Apparatus Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

Manufacturing, which is: all such firms having 1,000 or fewer employees.¹⁴¹ According to Census Bureau data for 2002, there were a total of 518 establishments in this category that operated for the entire year.¹⁴² Of this total, 511 had employment of under 1,000, and an additional 7 had employment of 1,000 to 2,499.¹⁴³ Thus, under this size standard, the majority of firms can be considered small.

45. *Other Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).”¹⁴⁴ The SBA has developed a small business size standard for Other Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.¹⁴⁵ According to Census Bureau data for 2002, there were a total of 503 establishments in this category that operated for the entire year.¹⁴⁶ Of this total, 493 had employment of under 500, and an additional 7 had employment of 500 to 999.¹⁴⁷ Thus, under this size standard, the majority of firms can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

46. Should the Commission decide to extend the automatic roaming requirement to non-interconnected services or features, including those that are information services, such as broadband Internet access service, or other non-CMRS services, the only reporting or recordkeeping costs incurred will be administrative costs to ensure that an entity’s practices are in compliance with the automatic data roaming rule. The additional compliance requirement is that providers must provide automatic roaming

¹⁴¹ 13 C.F.R. § 121.201, NAICS code 334210.

¹⁴² U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334210 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 450.

¹⁴³ *Id.* An additional 4 establishments had employment of 2,500 or more.

¹⁴⁴ U.S. Census Bureau, 2002 NAICS Definitions, “334290 Other Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

¹⁴⁵ 13 C.F.R. § 121.201, NAICS code 334290.

¹⁴⁶ U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334290 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 471.

¹⁴⁷ *Id.* An additional 3 establishments had employment of 1,000 or more.

to any requesting technologically compatible carrier on reasonable and non-discriminatory terms and conditions.¹⁴⁸ We seek comment on the possible burden such requirements would place on small entities. Also, we seek comment on whether a special approach toward any possible compliance burden on small entities might be appropriate. Entities, especially small businesses, are encouraged to quantify the costs and benefits of any compliance requirement that may result from this proceeding.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

47. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.¹⁴⁹

48. The Commission's primary objective in this proceeding is to facilitate seamless wireless communications for consumers, even when they are outside of the coverage area of their own service providers. Recognizing wireless subscribers' increasing reliance on mobile telephony services, especially the growing demand of data services by consumers, the Second Further Notice seeks comment on whether it would serve the public interest to extend the applicability of the automatic roaming requirements to non-interconnected services or features, including those that are information services, such as wireless broadband Internet access services, or other non-CMRS services.

49. To the extent that addressing the issues raised in the Second Further Notice requires modifying the applicability of the automatic roaming rules, we seek comment on the effect that such rule changes will have on small entities, on whether alternative rules should be adopted for small entities in particular, and on what effect such alternative rules would have on those entities. We invite comment on ways in which the Commission can achieve its goals, but at the same time impose minimal burdens on small wireless service providers and small non-CMRS providers.

50. The item notes that, in their comments filed on the 2007 *Further Notice*, several carriers argued that extending the automatic roaming requirements to non-interconnected services and features would subject networks to capacity restraints that would degrade the quality of service to the network's own customers. They also argued that there are technical issues associated with extending an automatic roaming requirement to wireless broadband Internet access services, such as, for example, different authentication methods and interoperability issues regarding methods for assigning IP addresses. The item seeks comment about whether advances in technology have helped to reduce the potential for these problems to occur or whether parties continue to have concerns with network capacity, network integrity, or network security issues that may be associated with roaming among data networks. To the extent that parties continue to have concerns about the potential for network capacity or other technical issues, the item seeks comment on potential methods to address such issues.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

None.

¹⁴⁸ See *supra* at ¶¶ 2, 3.

¹⁴⁹ See 5 U.S.C. § 603(c).

**STATEMENT OF
CHAIRMAN JULIUS GENACHOWSKI**

Re: *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services, WT Docket No. 05-265.*

Today we take action to increase American consumers' access to mobile voice service, wherever and whenever they choose. We do so by creating a framework for voice roaming that will encourage carriers of all sizes to reach reasonable commercial agreements with each other, while also encouraging these carriers to continue investing in the coverage and capacity of existing voice networks. And we will adjudicate any disputes that may arise between carriers with a tailored, fact-based process that will support continued investment, innovation, and competition in mobile.

Consistent with the recommendation of the National Broadband Plan, our decision today also opens a broad inquiry into the critical issue of data roaming. As I have said before, there are few areas in communications that present greater promise for our country than mobile – in terms of driving our economy and delivering broad opportunity for all Americans – and our goal must be for America to lead the world in mobile. To promote this goal, we must ensure that American consumers have access to competitive broadband data communications services whenever they want and wherever they are, and also ensuring that the United States has the fastest and most extensive mobile networks in the world.

I thank the Bureau and my colleagues for their hard work on this complex and important item.

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS**

Re: *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services, WT Docket No. 05-265.*

Saint Augustine wisely taught us that, “[i]t is human to err, but it is devilish to remain willfully in error.” Based on several years of experience and an extensive record, we now correct the error made in 2007 to exclude wireless roaming in a requesting carrier’s home market from the automatic roaming requirement. In our decision at the time, we clarified that technologically compatible carriers must deal with each other in good faith and without discrimination when negotiating voice roaming outside the requesting carrier’s home market. Although we encouraged similar arrangements for home-market roaming, we did not require it in the belief that not doing so would help promote facilities-based competition and foster build-out in those markets where the requesting carrier had spectrum rights. We were wrong. The record clearly shows that the 2007 home-market exclusion discouraged competition, hampered innovation and investment and harmed consumers.

So today we establish a clear and strong presumption in favor of automatic roaming, regardless of whether the request is for areas inside or outside of the requesting carrier’s home market. We continue to encourage carriers to negotiate roaming agreements based on reasonable terms and conditions. For those cases where commercial negotiations fail, roaming requests from carriers—small and large—will be viewed as presumptively reasonable and enjoy the protections of Title II of the Communications Act—and that’s always a good place to be, isn’t it? This item is very good news indeed for consumers who want to use their mobile phones as they are traveling across the county or across the country. After all, it is consumers who pay the price when their carriers have to accept inflated roaming rates or cannot reach a roaming agreement at all.

We also move forward with a further examination of the critical issue of access to data roaming. Not many of us buy a mobile phone these days only for the voice service. Consumers rely upon their mobile handsets to provide a dizzying array of data services. The National Broadband Plan makes it clear that consumer demand for mobile connectivity grows stronger by the day. So what good is your smartphone if you can roam for voice but not for any of the other services you bought it for? What kind of real competitive choice does that give consumers, especially those who live in rural America? Consumers should not have to be engineers or industry lobbyists to figure out which mobile services they can expect to work when they travel. They should be able to count on their phones working to the fullest extent that technology permits, wherever they happen to be. And carriers should have the right to negotiate roaming agreements at just and reasonable rates for their subscribers.

Although I would have gone further than we do here, because I believe we already have an adequate record to act on the issue of an automatic data-roaming obligation, I welcome a thorough review of the wireless data market, provided it is accomplished in a timely and expeditious manner. Consumers want data now and we need to open this door for them just as quickly as we can.

Lastly, let me say that—as we raise questions about the legal framework for an automatic data-roaming requirement—I remain fully confident that we have the authority we need to protect American wireless consumers. Previous Commissions have taken consumers on a dangerous deregulatory ride by moving broadband—including mobile broadband Internet access—outside of the statutory framework that applies to telecommunications carriers. The Commission abdicated its consumer protection

responsibilities in favor of a “no touch” regulatory approach that benefitted primarily big companies. Remember when we used to treat telephones as telephones and the telecommunications that enabled them as telecommunications services? We need to do that again.

**STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL**

Re: *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services, WT Docket No. 05-265.*

Today's order is the product of literally years of hard work by countless individuals. In the end, we are writing an important chapter in the FCC's history by making it easier for American consumers to enjoy seamless, nationwide wireless coverage while also preserving incentives for carriers to build out their own facilities resulting in more efficient use of our country's airwaves.

We achieve this accomplishment today unanimously. In so doing, I am reminded of one of the guiding principles espoused by that great telecommunications policy philosopher, Coach Mike Krzyzewski. Coach K often says that, "Two can beat one if they play as one. And five can beat two if they play as one." Today, the five of us are playing as one.

I am voting to support today's decision because it balances a number of other competing interests such as: promoting competition among multiple wireless carriers; encouraging new entry into the wireless market; and providing incentives for all carriers to invest and innovate.

In our August 2007 Order on roaming, which I supported, the Commission ruled that automatic voice roaming is a common carrier service subject to Title II of the Act. At the same time, however, the Commission did not extend that decision to those carriers that were requesting voice roaming in geographic areas where they held spectrum licenses to provide wireless services. In making this exclusion for "home roaming," we reasoned that imposing an automatic roaming obligation in home markets might discourage build-out in these markets, and, therefore, undermine facilities-based competition. We also recognized the importance of roaming and encouraged wireless carriers to continue to negotiate and reach automatic roaming contracts in those home markets.

In the intervening years, through numerous meetings with an array of interested parties, I learned that the great majority of carriers that were seeking regulatory relief here were successfully continuing to strike new roaming deals in the marketplace. On the other hand, I also learned that, in some instances, the home roaming exclusion unintentionally created confusion. Yes, once again a government rule produced an unintended consequence. The rule led some to conclude that a carrier effectively had no right to request roaming in any market where it held spectrum, and the would-be host carrier had no obligation to negotiate roaming arrangements for those markets. Carriers also complained that they had no rights under Title II to seek relief from the Commission for those disputes arising from roaming requests in home markets. As a result, for several years now, interested parties have sought to modify the home market exclusion in a number of cumbersome ways.

The good news today is that we agree on a new course. Specifically, we recognize that the better, simpler path is to eliminate the home market exclusion completely. We also clarify that wireless carriers have statutory rights to complain, even if they seek automatic voice roaming arrangements within a home market. By setting forth factors that the Commission will consider in the event of a complaint, we provide a framework that will provide both sides – the host and the requesting carriers – with greater incentives to succeed in negotiating roaming agreements based on reasonable terms and conditions. We allow market forces to drive flexible deals among market players to give consumers the benefit of seamless, nationwide voice services.

Finally, with respect to the Further Notice on data roaming, for some time now, I have requested that interested parties submit for our consideration a legal analysis setting forth the means to this end. The question is simple: Given that, in 2007, the Commission classified wireless broadband services as Title I without dissent, is there a legally sustainable path to mandate automatic data roaming? I have sought this analysis well before the D.C. Circuit's recent ruling in the *Comcast* case, which casts even more doubt on our jurisdiction in this area. I strongly encourage all commenters to give us their analyses of how the *Comcast* decision affects our ability to regulate data roaming.

I thank Chairman Genachowski for providing another opportunity for comment on this important issue. I look forward to learning more. In the meantime, I will continue to strongly encourage parties to continue to enter into roaming deals, including those that include data. As the Further Notice states, "in the two years since our 2007 Further Notice on data roaming, the wireless broadband industry has experienced a rapid evolution, with significant economic, technological, and regulatory developments, including developments in network and device technologies, spectrum use and availability, market participants, network deployments, and consumer demand and usage patterns." I highlight these positives to point out that they have occurred even *without* an FCC mandate for automatic data roaming.

I further thank the Chairman for bringing this matter forward immediately after completion of the Broadband Plan, and for handling this complicated issue in a comprehensive manner, as part of the broader roaming docket. I also thank Ruth Milkman and the dedicated team in the Wireless Bureau for your outstanding work in this area.

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

Re: *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services, WT Docket No. 05-265.*

When it comes to roaming for voice and data services, consumers need seamless, nationwide coverage. However, when the Commission adopted in 2007 a “home market exclusion” to its automatic roaming requirements, it undercut that goal. By repealing the home market exclusion in today’s Order, we are safeguarding consumers’ expectations of seamless coverage irrespective of whether they are calling from their carrier’s home market or from the home market of another.

I recognize that a number of smaller, rural, carriers opposed any mention in this Order about the appropriateness of considering a requesting carrier’s lack of build out, in its home markets, when determining if the terms of a roaming agreement are reasonable. According to these smaller carriers, larger nationwide carriers with greater bargaining positions in roaming negotiations, may use such language to propose unreasonable roaming agreements. I carefully considered those arguments. I have decided to support today’s Order, because the relevant language makes it clear that any roaming request is presumed to be reasonable, and no hosting carrier can use a requesting carrier’s lack of build out as the sole dispositive factor for imposing roaming terms and conditions.

I also fully support the Further Notice of Proposed Rulemaking that seeks additional comment on whether the Commission should extend roaming requirements to mobile data services not connected to the public switched telephone network. Such services would include wireless broadband Internet access services. The National Broadband Plan discussed how important these mobile broadband services are to making broadband service available and affordable throughout our Nation. The detailed and balanced questions posed by the Further Notice, will provide the Commission with a comprehensive record on its legal authority to impose roaming obligations on such services and the merits for imposing such obligations if it decides to do so.

**STATEMENT OF
COMMISSIONER MEREDITH ATTWELL BAKER**

Re: Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services, WT Docket No. 05-265.

We act today in a straightforward, narrowly tailored way to ensure that voice services are available to consumers in all parts of the country, regardless of the location of their service provider. Recognizing the evolution of voice roaming services since the Commission's previous order on roaming, we have chosen not to impose negotiation mandates, set rates or timelines or otherwise create onerous burdens on carriers. Instead, we leave ample room for market-driven solutions and have established, through the creation of a rebuttable presumption, a simple procedure that should ensure that no reasonable request for roaming service is denied. This will further serve the interests of consumers who have come to expect anytime, anywhere voice communications.

I believe we are at the beginning of a revolution in mobile broadband services. Although we do not yet have a fully mature market in third generation wireless services, carriers are already beginning to deploy fourth generation networks that will take the benefits of mobile broadband to whole new levels, enabling a range of products and services that will likely prove to be even more transformational than their third generation counterparts. I applaud these efforts and investments.

Given the continuing evolution of the mobile broadband market, we should proceed with great caution before extending any automatic roaming obligations to data services. Important questions need to be resolved with respect to what authority the Commission might have, if any, to act in this area. We must continue to respect the distinctions between mobile voice and data markets. Our actions must be carefully crafted and appropriate to their unique characteristics. Most important, we should take no action that could inadvertently stifle the evolution of data roaming relationships that already exist or inhibit further buildout, investment and innovation.

Given the growing importance of the products and services that run over mobile broadband networks, it is reasonable to seek additional comment on the implications of extending the automatic roaming requirement to data networks. I look forward to hearing from a broad cross section of interested stakeholders in the coming weeks. I also would strongly urge members of the private sector to continue to work together to provide mobile data solutions that promote continued investment and innovation in third and fourth generation networks in all parts of the country to benefit wireless consumers wherever they live, work or travel.

Thank you to the staff of the Wireless Bureau and to my colleagues for their thoughtful work on this item.