

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

In the Matter of
911 Call-Forwarding Requirements for Non-
Service-Initialized Phones
PS Docket No. 08-51

NOTICE OF PROPOSED RULEMAKING

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By the Commission:

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I. INTRODUCTION

1. The Commission has a longstanding commitment to ensuring access to 911 for the American public. In support of this objective, the Commission’s rules require commercial mobile radio service (CMRS) providers subject to the 911 rules to transmit all wireless 911 calls “without respect to

their call validation process.”¹ Thus, the rule requires providers to transmit both 911 calls originating from customers that have contracts with CMRS providers and calls originating from “non-service-initialized” (NSI) devices to Public Safety Answering Points (PSAPs). An NSI device is a mobile device for which there is no valid service contract with any CMRS provider.² As such, NSI devices have no associated subscriber name and address, and do not provide Automatic Number Identification (ANI) or call-back features.³ As a result, when a caller uses a NSI device to call 911, the PSAP typically cannot identify the caller.

2. In this Notice of Proposed Rulemaking (NPRM), we seek comment on whether the obligation to transmit 911 calls from NSI devices continues to serve an important public safety objective.⁴ A primary rationale for the initial adoption of the Commission’s rule in the late 1990s was to expedite wireless calls to 911 that would otherwise have been delayed due to lengthy call validation processes for unidentified callers that were commonly used at the time. In the nearly two decades since the rule was adopted, however, the call validation methods of concern to the Commission are no longer in use. Moreover, the availability of low-cost options for wireless services has increased. These trends suggest that the NSI component of the requirement is no longer necessary to ensure that wireless callers have continued access to emergency services. Further, the inability to identify the caller creates considerable difficulty for PSAPs when a caller uses an NSI device to place fraudulent calls.⁵ Public safety representatives have indicated that NSI devices are frequently used to make such calls, causing a significant waste of limited public safety resources. For these reasons, we propose to sunset the NSI component of the rule after a six-month transition period that will allow for public outreach and education. We also seek comment on alternative approaches to addressing the issue of fraudulent calls from NSI devices.

II. BACKGROUND

A. Adoption of the NSI Device Requirement

3. In 1996, the Commission issued its *E911 First Report and Order*, which required covered carriers (now defined as CMRS providers)⁶ to transmit all 911 calls from wireless mobile handsets that transmit a code identification,⁷ without requiring any user or call validation or similar procedure.⁸ The

¹ 47 C.F.R. § 20.18(b).

² 47 C.F.R. § 20.18(l)(3)(i). For purposes of the rule, we interpret “valid service contract” to mean any contractual relationship under which service is provided, including the purchase of prepaid service. Examples of NSI devices include prepaid cell phones with expired minutes, phones under an expired contract, donated cell phones, and certain “911-only” phones that are configured solely to make emergency calls. See Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Memorandum Opinion and Order*, 18 FCC Rcd 23383, 23384 ¶ 3 (2003) (*E911 Second Memorandum Opinion and Order*).

³ “ANI” is defined at 47 C.F.R. § 20.3 as a “system that identifies the billing account for a call. For 911 systems, the ANI identifies the calling party and may be used as a call back number.”

⁴ We neither seek comment upon nor do we propose to alter the obligation of providers to transmit 911 calls from customers using service-initialized devices.

⁵ For purposes of this proceeding, we use the term “fraudulent” to denote intentional calls made to 911 where no actual emergency exists. We use this term to encompass calls that are not appropriate calls to 911 and therefore detract from the PSAP’s mission. A fraudulent call in this context does not necessarily denote that the caller intends to commit fraud. Fraudulent calls include hang ups, false reports of emergencies, harassing calls, and other intentional non-emergency calls.

⁶ 47 C.F.R. § 20.18(a).

⁷ “Code identification” may consist of the handset’s Mobile Identification Number (MIN) or its functional equivalent. Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling (continued....)

Commission noted that user validation procedures, such as requiring a caller to provide credit card information, could be long and cumbersome, and that applying these procedures in emergencies could thus cause a dangerous delay or interruption of the 911 assistance process and, effectively, the denial of assistance in some cases.⁹ The Commission also required covered carriers to comply with PSAP requests for transmission of 911 calls made without code identification.¹⁰ Even at the time of adoption of the NSI requirement, however, the Commission recognized that “there are disadvantages associated with requiring all 911 calls to be processed without regard to evidence that a call is emanating from an authorized user of *some* CMRS provider.”¹¹ The Commission acknowledged that “placing 911 calls from handsets without a code identification has significant drawbacks, including the fact that ANI and call back features may not be usable, and hoax and false alarm calls may be facilitated.”¹² The Commission concluded, however, that public safety organizations are in the best position to determine whether acceptance of calls without code identification would help or hinder their efforts.¹³

4. In response to several petitions for reconsideration of the *E911 First Report and Order*, the Commission issued a stay of its rules and sought additional comment.¹⁴ On the basis of the updated record on reconsideration, in 1997 the Commission released its *E911 First Memorandum Opinion and Order*.¹⁵ In that order, the Commission determined that without applying validation procedures, then-present technology could not distinguish between code-identified and non-code-identified handsets.¹⁶ Accordingly, the *E911 First Memorandum Opinion and Order* required carriers to forward all 911 calls whether or not they transmit a code identification.¹⁷ The Commission also found that PSAPs should be able to “screen out or identify many types of fraudulent calls or those where call back is not possible” and also expressed the hope that PSAPs could implement call back technology for NSI devices.¹⁸

5. Since the adoption of the NSI requirement, the Commission has been aware of the continuing concern regarding fraudulent calls and the lack of call-back capabilities associated with NSI devices, and has taken various measures to address this issue. In 2002, the Commission required NSI

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Systems, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 18676, 18683 ¶ 10 n. 12 (1996) (*E911 First Report and Order*).

⁸ *Id.* at 18692 ¶ 29.

⁹ *See, e.g., id.* at 18693, ¶ 32. *See also* Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Memorandum Opinion and Order*, 12 FCC Rcd 22665, 22679 ¶ 25 (1997) (*E911 First Memorandum Opinion and Order*).

¹⁰ *Id.* at 18696 ¶ 39.

¹¹ *Id.* at 18696 ¶ 38 (emphasis in original).

¹² *Id.*

¹³ *Id.*

¹⁴ *See* Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Order*, 12 FCC Rcd 15313 (1997); Additional Comment Sought in Wireless Enhanced 911 Reconsideration Proceeding Regarding Rules and Schedules, CC Docket No. 94-102, *Public Notice*, 12 FCC Rcd 15331 (1997).

¹⁵ *E911 First Memorandum Opinion and Order*, 12 FCC Rcd at 22665 (amending Section 20.18(b) to require licensees to “transmit all wireless 911 calls without respect to their call validation process to a Public Safety Answering Point”). *See* 47 C.F.R. § 20.18(b) (requiring “CMRS providers, subject to this section” to meet that obligation).

¹⁶ *Id.* at 22680 ¶ 28.

¹⁷ *Id.* at 22682 ¶ 33.

¹⁸ *Id.* at 22684 ¶ 37. The call-back technology cited was “Follow-Me-Roaming.” *Id.*

handsets donated through carrier-sponsored programs, as well as newly manufactured “911-only” devices, to be programmed with the number 123-456-7890 as the “telephone number,” in order to alert PSAPs that call-back features were unavailable.¹⁹ The Commission also required that carriers complete any network programming necessary to deliver this programmed number to PSAPs.²⁰ Later that year, the Commission clarified that its rules requiring carriers to forward all 911 calls to PSAPs did not preclude “carriers from blocking fraudulent 911 calls from non-service initialized phones pursuant to applicable state and local law enforcement procedures.”²¹ The Commission added that “[w]here a PSAP has identified a handset that is transmitting fraudulent 911 calls and makes a request to a wireless carrier to block 911 calls from that handset in accordance with applicable state and local law enforcement procedures, the carrier's compliance does not constitute a violation of Section 20.18(b).”²²

6. In its subsequent *E911 Second Memorandum Opinion and Order*, the Commission modified its rules to require that carrier-donated handsets and newly manufactured 911-only devices be programmed with the number “911,” followed by seven digits from the handset’s unique identifier, such as the Electronic Serial Number (ESN) or International Mobile Station Equipment Identity (IMEI) (911+ESN/IMEI).²³ The Commission took this action to facilitate identification of individual NSI devices used to make fraudulent or harassing calls, finding it “highly probable” that this form of identification would enable a PSAP to identify a suspected device and work with carriers and law enforcement “to trace it and block further harassing calls from the device.”²⁴ The Commission further stated that it would continue monitoring the nature and extent of problems associated with 911 service for NSI devices.²⁵

B. Notice of Inquiry

7. In February 2008, a coalition of nine public safety organizations, including the National Emergency Number Association (NENA) and the Association of Public-Safety Communications Officials (APCO), and a software development firm (Petitioners), filed a petition for notice of inquiry (Petition) to address the problem of non-emergency calls placed to 911 by NSI devices.²⁶ The Petition contended that

¹⁹ Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Order*, 17 FCC Rcd 8481, 8489-90 ¶ 26 (2002) (*E911 Second Report and Order*).

²⁰ *Id.*

²¹ FCC Clarifies that 911 Call-Forwarding Rule does not Preclude Wireless Carriers from Blocking Fraudulent 911 Calls from Non-Service Initialized Phones Pursuant to State and Local Law, CC Docket No. 94-102, *Public Notice*, 17 FCC Rcd 21877 (2002) (*E911 Fraudulent Call-Blocking Public Notice*).

²² *Id.* at 21878.

²³ See Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Second Memorandum Opinion and Order*, 18 FCC Rcd 23383, 23391 ¶ 19 (2003) (*E911 Second Memorandum Opinion and Order*). An ESN is a unique identification that is embedded or inscribed on a microchip in a wireless phone. In the United States, ESNs are primarily used in CDMA, TDMA, and AMPS phones. An IMEI is a unique identification that is embedded or inscribed on a microchip in all GSM, WCDMA, and iDEN phones, as well as some satellite phones, and is usually found printed inside of the battery compartment of the phone.

²⁴ *Id.* at 23386, 23388 ¶ 13.

²⁵ *Id.* at 23392 ¶ 24.

²⁶ See Petition for Notice of Inquiry Regarding 911 Call-Forwarding Requirements and Carriers’ Blocking Options for Non-Initialized Phones, CC Docket No. 94-102 (filed Feb. 14, 2008) (Petition). The Petitioners are the Tennessee Emergency Communications Board, the National Association of State 9-1-1 Administrators (NASNA), the Michigan State 9-1-1 Office, the New Jersey State 9-1-1 Commission, the Snohomish County Enhanced 9-1-1 Office, NENA, APCO, the State of Montana 911 Program, the Washington State E911 Program, and Openwave Systems, Inc. (collectively, Petitioners).

while the *E911 Second Memorandum Opinion and Order* achieved “the goal of helping PSAPs identify when 911 calls are from NSI devices,” such calls “continue to create severe problems for PSAPs.”²⁷ The Petition asserted that only “a very small minority of the 911 calls from NSI devices were made to report actual emergencies,” and that non-emergency NSI calls “waste the limited and precious resources of the PSAPs and interfere with PSAPs’ ability to answer emergency calls,” as do subsequent “efforts to locate or prosecute the callers.”²⁸

8. The Petition also asserted that when PSAPs and other authorities requested that CMRS providers block harassing 911 calls from NSI devices, the providers had declined, citing technical and legal concerns related to complying with such requests.²⁹ Accordingly, the Petition requested that the Commission “provide further clarification and guidance on this [blocking] option to stop harassing and fraudulent 911 calls from NSI devices.”³⁰ The Petition also asked the Commission to consider other options to address fraudulent calls from NSI devices, including identifying further call-back capabilities for NSI devices, the elimination of call-forwarding requirements for NSI devices, and/or requiring CMRS providers’ donation programs to provide service-initialized devices.³¹ In the alternative, the Petition asked the Commission to seek comment on other solutions.³²

9. On April 2008, the Commission granted the Petition and issued a *Notice of Inquiry* to enhance its understanding of the problems created by non-emergency 911 calls made from NSI devices and to explore potential solutions.³³ In the *Notice of Inquiry*, the Commission requested comment on three specific areas: (1) the nature and extent of fraudulent 911 calls made from NSI devices; (2) concerns with blocking NSI devices used to make fraudulent 911 calls, and suggestions for making this a more viable option for CMRS providers; and (3) other possible solutions to the problem of fraudulent 911 calls from NSI devices.³⁴ In response to the *Notice of Inquiry*, the Commission received comments from public safety representatives at state, county, and local government levels in twenty-one states, as well as comments from CMRS providers, third-party vendors, and others.³⁵

C. 2013 Public Notice

10. In their comments to the *Notice of Inquiry*, the Petitioners, including NENA, argued in favor of retaining the NSI call-forwarding requirement on the grounds that the public relied on the fact that NSI devices are 911-capable and that a significant number of calls to 911 from NSI devices are legitimate.³⁶ However, in an *ex parte* filing submitted in 2013, NENA revised its view, stating that it now

²⁷ Petition at 8.

²⁸ *Id.* at 10, 12.

²⁹ *Id.* at 12-13; *see also id.*, Attachment B (providing statements regarding call blocking requests).

³⁰ *Id.* at 13.

³¹ *Id.* at 13-14.

³² *Id.* at 14.

³³ Petition for Notice of Inquiry Regarding 911 Call-Forwarding Requirements and Carriers’ Blocking Options for Non-Initialized Phones, PS Docket No.08-51, *Notice of Inquiry*, 23 FCC Rcd 6097 (2008) (*Notice of Inquiry*).

³⁴ *Notice of Inquiry*, 23 FCC Rcd at 6101 ¶ 10.

³⁵ See Appendix A for a list of commenters. The Commission also received 28 brief comments of no more than a few sentences in support of the Petition.

³⁶ Petitioners Reply Comments, PS Docket No. 08-51 (filed July 29, 2008), at 3 (“While we are sympathetic to those comments that call for an outright FCC reversal of the ‘forward all calls’ rule, we cannot support such a request at this time because there remain a significant number of legitimate 9-1-1 calls from NSI devices (even if they represent a low percentage of all NSI 9-1-1 calls) and because handsets can be rendered NSI by more than mere lapses in subscription.”).

supported eliminating the 911 call-forwarding requirement, and that there was now a “consensus view” that requiring 911 call forwarding from NSI devices does more harm than good.³⁷ In light of NENA’s revised view on the necessity of retaining the 911 call-forwarding requirement, as well as the passage of time since the filing of comments in response to the *Notice of Inquiry*, in March 2013 the Commission released a public notice seeking to refresh the record on the foregoing issues (*2013 PN*).³⁸ In response to the *2013 PN*, the Commission received six comments from public safety entities and one from a CMRS provider.³⁹

III. DISCUSSION

11. The record received in response to the *Notice of Inquiry* and *2013 PN* has helped to further define and document the problem of fraudulent 911 calls placed by users of NSI devices. As discussed below, the problem remains acute. At the same time, the evolution of the record and changes in wireless service offerings, including the expanded availability of low-cost wireless services, suggest there is now significantly less need for the NSI rule than when it was adopted in 1996. Accordingly, in this NPRM we propose to sunset the NSI rule after a six-month transition and outreach period. During the transition period, we would partner with industry and public interest organizations to educate consumers about the transition and the availability of alternative means to call 911. We seek comment on this proposal in the discussion below. We also seek comment on the relative costs and benefits of other potential approaches and solutions to the problem, including blocking calls from NSI devices.

A. Public Policy Analysis and Comparative Benefits

1. The Extent of Fraudulent 911 Calls from NSI Devices and Associated Costs to Public Safety

12. The record to date shows that fraudulent 911 calls from NSI devices continue to pose a major problem for PSAPs, imposing substantial costs while reducing their ability to respond to legitimate 911 calls. In the *Notice of Inquiry* in 2008, the Commission cited data from the Petitioners, generated in late 2006 from jurisdictions in four states, showing that between 3.5% and less than 1% of 911 calls placed by NSI devices were legitimate calls relating to actual emergencies.⁴⁰ The *Notice of Inquiry* asked commenters to provide more recent and expansive data from the same and other jurisdictions, and also welcomed further evidence illustrating the extent of the problem, such as statements from knowledgeable parties and media reports.⁴¹ In response, public safety commenters provided additional evidence that the vast majority of 911 calls from NSI devices were not actual calls for help, and that these calls both wasted the limited resources of PSAPs and interfered with their ability to respond to legitimate emergency calls. For example, Indiana estimated that “over 90% of all NSI calls received” were not legitimate.⁴² North Carolina similarly reported that between May 15, 2008 and June 15, 2008, PSAPs across the state received 159,129 calls from NSI devices, of which 132,885, or 83.51%, were non-emergency calls, and

³⁷ See Letter, Telford Forgety, NENA Director of Governmental Affairs & Regulatory Counsel, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket No. 08-51 (Feb. 11, 2013), at 1 (*NENA Ex Parte*).

³⁸ See Public Safety and Homeland Security Bureau Seeks to Refresh the Record Regarding Options for Addressing Non-Emergency Calls to 911 from Non-Service Initialized Handsets, PS Docket No. 08-51, *Public Notice*, 28 FCC Rcd 2513 (PSHSB 2013) (*2013 PN*).

³⁹ See Appendix A.

⁴⁰ *Notice of Inquiry*, 23 FCC Rcd at 6102 ¶ 12; Petition at 10. The four states were Tennessee, Florida, Michigan, and Washington.

⁴¹ *Notice of Inquiry*, 23 FCC Rcd at 6102 ¶ 12.

⁴² Indiana Wireless 911 Advisory Board Comments, PS Docket 08-51 (filed June 1, 2008), at 3 (Indiana Comments).

an additional 11,395, or 7.16%, were “malicious” non-emergency calls.⁴³ Amelia County, Virginia also stated that NSI devices were “the biggest problem we have with the E911 system,” and that, at times, they had been “inundated with phone calls from these phones with the only purpose being to harass the call takers/dispatchers.”⁴⁴ Washington State likewise indicated that “by far,” the “majority of calls to 911 from NSI sets” did not appear to be legitimate emergencies.⁴⁵ Moreover, Washington estimated that reported NSI problems were “very likely an understatement,” due to lack of time and resources of PSAPs to respond to the *Notice of Inquiry*.⁴⁶ Other public safety commenters reported similar patterns of frequent and recurring non-emergency calls from NSI devices.⁴⁷

13. Subsequent to the close of the *Notice of Inquiry* comment period, the Commission continued to receive evidence that fraudulent 911 calls from NSI devices remain a large problem for PSAPs and other public safety entities.⁴⁸ Comments received in response to the 2013 *PN* also indicate that the problem is continuing. For example, Tennessee states that during a three-month period in 2008, of over 10,000 NSI calls only “188 were valid emergencies.”⁴⁹ Sonoma County, California indicates that between April 2011 and April 2013 only approximately 8% of calls from NSI devices were to report an emergency or crime.⁵⁰ Peoria, Illinois similarly asserts that “[w]e get a lot of calls from these types of phones that are used to harass the 9-1-1 telecommunicators and pump as many as 25 calls per day into our

⁴³ North Carolina 911 Board Comments, PS Docket 08-51 (filed June 27, 2008), at 3 (North Carolina Comments).

⁴⁴ Amelia County Comments, Virginia, Sheriff Comments, PS Docket 08-51 (filed June 26, 2008), at 4 (Amelia County Comments).

⁴⁵ Washington State E911 Administrator Reply Comments, PS Docket 08-51 (filed July 29, 2008), at 3 (Washington Reply Comments).

⁴⁶ Washington Reply Comments at 2.

⁴⁷ See, e.g., Waukesha County, Wisconsin, Communications Center Comments, PS Docket 08-51 (filed May 7, 2008), at 2 (Waukesha County Comments) (received 399 911 calls from NSI devices in January 2008, of which 3.5% were for actual incidents, 5.8% were “open line” calls where no contact was made with the caller, and 66.4% were hang-up or abandoned calls. Moreover, 55% of the NSI calls came from phones that had made multiple 911 calls that month); Maine Dept. of Public Safety Comments, PS Docket 08-51 (filed June 27, 2008), at 1 (Maine Comments) (received over 24,000 calls from NSI devices between January 1, 2007 and March 31, 2008, and noting that operators rarely remembered such callers “actually needing assistance.”); City of Laredo, Texas Comments, PS Docket 08-51 (filed June 30, 2008), at 2-3 (Laredo Comments) (between February and April 2008, 32.51% of wireless calls were from NSI devices. Less than 0.5% of these calls warranted dispatch.).

⁴⁸ See, e.g., Letter, Gregg, P. Skall, American Roaming Network, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket 08-51 (filed May 13, 2010), at 1 (ARN *Ex Parte*) (“90% of E911 calls from NSI handsets are not legitimate E911 calls”); Letter, Paul Nave, 911 Director, Daviess County, Kentucky, Sheriff’s Office to Julius Genachowski, Chairman, Federal Communications Commission, PS Docket 08-51 (filed Aug. 8, 2009), at 1 (Daviess County *Ex Parte*) (“[M]any [calls from NSI handsets] were made by pranksters for reasons other than an emergency nature.”); Letter, George L. Fosque, 911 and Communications Direction, Cambridge, Massachusetts, Emergency Communications Department, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket 08-51 (filed June 11, 2013), Attachment at 1 (Cambridge *Ex Parte*) (stating that 14% of wireless calls made to 911 [in a 19 month period] are NSI calls, but almost all were not emergencies). See also Comments of the National Emergency Number Association in, PS Docket Nos. 10-255, 11-153, 12-333 (filed Dec. 13, 2012), at 21 (“Today, PSAPs face an ever-growing onslaught of non-emergency calls to 9-1-1 from NSI devices.”).

⁴⁹ Tennessee Emergency Communications Board Reply Comments, PS Docket 08-51 (filed May 22, 2013), at 1 (Tennessee PN Reply Comments).

⁵⁰ Sonoma County, California, Sheriff Comments, PS Docket 08-51 (filed May 14, 2013), at 1 (Sonoma County PN Comments).

system” while “few if any actual 9-1-1 calls [come] from these types of phones.”⁵¹ Media reports also indicate that this is a serious and continuing problem.⁵²

14. We seek comment and updated data regarding the degree to which the issue of fraudulent calls from NSI devices has continued since the 2013 PN comments were filed, as well as any other data that will help clarify the extent of the problem. Have changes in mobile device technology or design had any impact on the overall numbers of fraudulent NSI 911 calls? Has the increased proliferation and use of smartphones added to or reduced the problem, and if so, how? What technological advancements, if any, might increase the ability to trace back individual NSI callers and thereby deter fraudulent calls?

15. We also seek comment on the percentage of fraudulent 911 calls coming from particular types of NSI devices or subsets of NSI device users. Several commenters suggested that a disproportionate number of fraudulent 911 calls come from a relatively small subset of NSI devices. California, for example, stated that between October 1, 2007 and May 15, 2008, PSAPs across the state reported 266 active repetitive callers who placed over 77,000 calls to 911, mainly using NSI devices. Of the 266 callers identified, 85 had placed 200 or more calls, and eight callers had made more than 1,000 calls.⁵³ Other commenters noted that such calling patterns were often related to the accessibility of NSI devices to minors. For example, Petitioners stated that “donated phones appear to be only a small portion of the problem, with the bulk of troublesome devices being old equipment no longer in use, often given to children to play with.”⁵⁴ Is data available regarding the percentage of fraudulent NSI calls that come from minors? Are there other categories of NSI devices that are disproportionately associated with

⁵¹ Peoria, Illinois Emergency Communications Center Comments, PS Docket 08-51 (filed May 6, 2013), at 1 (Peoria PN Comments). See also APCO Comments, PS Docket 08-51 (filed May 16, 2013) at 2 (“The information already in the record of this proceeding demonstrates the serious problems posed by such calls, which will only get worse with widespread deployment of wireless IP telephony devices.”) (APCO PN Comments); Tennessee PN Reply Comments at 1 (“In Shelby County, Tennessee one 911 call center reported receiv[ing] over 1100 calls from one NSI phone in a 16 day period. This is not an isolated incident.”). See also Cambridge Ex Parte, Attachment at 1.

⁵² See, e.g., Carlton, Jim, “Phony Calls Plague 911 Centers,” WALL STREET JOURNAL, (Apr. 6, 2014), <http://online.wsj.com/news/articles/SB10001424052702303847804579477411606975716> (“Pranksters use emergency-dial feature of disabled cellphones to avoid detection.”); Gonzalez, Tony, “Nashville Child Ties Up Dispatchers with 162-Plus 911 Calls” (Mar. 6, 2014), THE TENNESSEAN, <http://www.tennessean.com/story/news/local/2014/03/05/child-ties-up-dispatchers-with-162-plus-911-calls-on-tuesday-and-wednesday/6103557/>; *The Daily*, “Fanny 911” (Oct. 8, 2012), available at <http://www.dalecurtiscommunications.com/pdfs/DCC-FANNY-911.pdf> (“Complicating matters is the FCC’s requirement that even non-initialized cellphones — ones that no longer subscribe to any plan — must be able to dial 911. In many jurisdictions, this ... policy has resulted in call centers being inundated with prank calls that are extremely difficult to trace.”); Roderick, Kevin, “CHP busts man for making 18,000 prank calls to 9-1-1” (Feb. 25, 2011), L.A. OBSERVED, http://www.laobserved.com/archive/2011/02/chp_busts_man_for_making.php; “Local 9-1-1 Officials Concerned About Non-Initialized Cell Calls” (May 5, 2010), THE DILLON HERALD, <http://www.dillonheraldonline.com/2010/05/05/local-9-1-1-officials-concerned-about-non-initialized-cell-calls/>.

⁵³ See California Department of General Services Comments, PS Docket 08-51 (filed June 27, 2008), at 2 (California Comments). See also Laredo Comments at 3 (“during the review period, more than 100 NSI devices made monthly repeat calls to 9-1-1.”); Tennessee PN Reply Comments at 1 (“During our survey, over 4,000 or 40% of the 10,000 calls were from repeat callers. 62 made 10 or more calls during the survey period.”).

⁵⁴ See Petitioner’s Reply Comments at 2. See also National Association of Telecommunications Officers and Advisors Comments, PS Docket 08-51 (filed June 2, 2008), at 3 (NATOA Comments) (“many of the complaints of fraudulent 911 calls made from NSI devices are initiated by children. It appears these calls are made on discarded phones given to them by their parents, oftentimes to be used as toys. It is very probable that adult consumers are unaware of the fact that such phones are still capable of making 911 calls.”); Indiana Comments at 2 (stating that in January and February of 2008, 60.73% of calls from NSI devices in the State of Indiana were from children). Moreover, according to Indiana, only 2.1% of all NSI calls were legitimate in that period. *Id.*

fraudulent calls? For example, how frequently do fraudulent calls originate from NSI devices that appear to have been purchased by individuals specifically for the purpose of placing such fraudulent calls (*e.g.*, devices purchased on auction sites or at pawn shops)?

16. Some public safety commenters have also argued that the NSI rule exposes PSAPs to the risk of coordinated efforts to overload or impair their operations. Clinton County, Illinois, for example, cited the possibility of “a group of individuals perpetrating a wireless denial-of-service by placing large amounts of calls to 9-1-1 from NSI phones, with the potential of jamming or at the very least severely impairing the operations of the 9-1-1 system.”⁵⁵ Accordingly, we seek comment on the extent to which NSI devices could be used in a coordinated manner to deny 911 service.

17. Finally, we seek further comment regarding the costs that fraudulent NSI calls to 911 continue to impose on public safety and on consumers. For example, in response to the *Notice of Inquiry*, Kentucky indicated that “the time taken away from real emergency calls disposing of these [911 calls from NSI devices] seriously threatens the safety of any citizen in true need of service.”⁵⁶ Amelia County, Virginia similarly stated that “there have been times when we are totally inundated with ... calls from these phones.”⁵⁷ Tennessee notes how calls from a single child in one night “nearly immobilized the call center’s ability to receive actual emergency calls.”⁵⁸ Spokane County, Washington noted receiving “911 calls from a non-initialized cellular phone that was an open line and therefore tied up one of our 911 trunks and made it unavailable for emergency calls.”⁵⁹ Laredo, Texas cited to bomb threats made from NSI phones which, when they “cannot be identified with absolute certainty as a hoax,” require deployment of response agencies to the alleged target.⁶⁰ We ask commenters to provide for the record further instances of fraudulent NSI calls delaying the ability of public safety dispatchers to send help to callers in distress or otherwise negatively impacting the ability of first responders to respond to actual emergencies. We also seek other examples of fraudulent NSI calls impeding public safety, such as whether prison inmates have used the 911-calling capability of NSI devices to harass PSAPs or to circumvent call blocking or managed access technologies designed to deter contraband cellphone use from inside prison facilities.⁶¹ In all of the above examples, we seek cost estimates of the losses – including financial or human capital resources – that PSAPs have incurred due to fraudulent calls.

2. Decreasing Benefits of the NSI Rule

18. At the same time that the NSI requirement imposes costs on public safety resources – by diverting much-needed resources from legitimate emergencies – the record suggests that the benefits of the NSI rule are diminishing and the need for the rule is decreasing. We seek comment on whether this is the case. For example, several commenters pointed out that service-initialized devices have become far more ubiquitous and inexpensive, as compared to when the Commission originally implemented the NSI

⁵⁵ See Clinton County, Illinois ETSB Comments, PS Docket 08-51 (filed June 30, 2008), at 2 (Clinton County Comments). See also Washington Comments at 2-4 (Washington Comments) (raising the possibility that terrorists could use NSI devices to overload a PSAP during an emergency).

⁵⁶ Kentucky Office of the 911 Coordinator Comments, PS Docket 08-51 (filed June 30, 2008), at 1 (Kentucky Comments).

⁵⁷ Amelia County Comments at 4.

⁵⁸ Tennessee PN Reply Comments at 1.

⁵⁹ Spokane County, Washington, 911 Comments, PS Docket 08-51 (filed June 9, 2008), at 1 (Spokane County Comments).

⁶⁰ Laredo Comments at 3.

⁶¹ See generally Promoting Technological Solutions to Combat Contraband Wireless Device Use in Correctional Facilities, GN Docket No. 13-111, *Notice of Proposed Rulemaking*, 28 FCC Rcd 6603 (2013).

rule, thereby decreasing public reliance on the ability of NSI devices to call 911.⁶² Washington State, for instance, noted that when the NSI rule was adopted, there were few opportunities for a customer to acquire a wireless device other than by signing a relatively expensive long-term contract.⁶³ Thus, while the rule originally ensured access to 911-service for segments of the population that could not afford a long-term wireless subscription, Washington contended that service-initialized devices are now sufficiently ubiquitous and affordable to render the rule unnecessary.⁶⁴ CTIA likewise indicated that wireless device “[p]rices in the U.S. keep dropping. ... Since 2006, wireless CPI has fallen 8.0%, even as the CPI for all items has increased 16.7%.”⁶⁵ In this regard, we note that the Bureau of Labor Statistics’ Wireless Price Index shows that the effective monthly cost of wireless service to consumers has fallen by more than 40% since December 1997.⁶⁶ There has also been a proliferation of pre-paid devices since the Commission promulgated the NSI rule. For example, CTIA reported that “76.4 million consumers had prepaid plans in 2012, up from 71.7 million in 2011.”⁶⁷

19. Several commenters have also noted the potential of Lifeline-supported wireless services to provide a sufficient alternative to NSI phones.⁶⁸ Accordingly, we seek comment on whether the increasing ubiquity and decreasing cost of service-initialized devices obviates the need for the NSI rule. Does the increased availability and use of pre-paid services provide a sufficient alternative?

20. Many commenters also referenced a decrease in NSI handset donation programs.⁶⁹ For example, NENA stated that “most charities and domestic violence advocates [have] abandoned the

⁶² See, e.g., Clinton County Comments at 2; Connecticut Enhanced 9-1-1 Commission Comments, PS Docket 08-51 (filed June 27, 2008), at 2 (Connecticut Comments); King County, Washington, E911 Administrator Comments, PS Docket 08-51 (filed June 30, 2008), at 7-8 (King County Comments); Michael J. Mahn, Esq. Comments, PS Docket 08-51 (filed May 16, 2008), at 1 (Mahn Comments); Washington Comments at 2-4; Waukesha County Comments at 2.

⁶³ Washington Comments at 2.

⁶⁴ *Id.*

⁶⁵ See Letter, Scott K. Bergmann, Vice President, Regulatory Affairs, CTIA – The Wireless Association, to FCC Chairman and Commissioners, GN Docket No. 09-51, WT Docket No. 13-135 (filed Nov. 13, 2013) at 2.

⁶⁶ See Quandl, Inc., “BLS Consumer Price Index Database (not seasonally adjusted), Series Id CUUR0000SEED03, Wireless Telephone Services,” <http://www.quandl.com/BLS/CUUR0000SEED03-Consumer-Price-Index-CPI-All-Urban-Consumers-Wireless-telephone-services-4-T-326-U-S-city-average>.

⁶⁷ See CTIA Comments, PS Docket 08-51 (filed June 30, 2008), at 9 (CTIA Comments).

⁶⁸ See APCO PN Comments at 2-3; NENA *Ex Parte* at 2. The Lifeline program, part of the Universal Service Fund, provides a discount on phone service for qualifying low-income consumers. The program was implemented in 1985 to ensure local phone service for low-income households. See Lifeline and Link Up Reform and Modernization, Lifeline and Link Up, Federal-State Joint Board on Universal Service, Advancing Broadband Availability Through Digital Literacy Training, WC Docket No. 11-42, WC Docket No. 03-109, CC Docket No. 96-45, WC Docket No. 12-23, *Report and Order and Further Notice of Proposed Rulemaking*, 27 FCC Rcd 6656, 6661, 6668 ¶¶ 12, 21 (2012) (*Lifeline Reform Order*).

⁶⁹ See American Roaming Network Comments, PS Docket 08-51 (filed June 30, 2008), at 6-7 (ARN Comments); AT&T Comments, PS Docket 08-51 (filed June 30, 2008), at 4 (AT&T Comments); CTIA Comments at 1, 3, 4, 7; CTIA Reply Comments, PS Docket 08-51 (filed July 29, 2008), at 1; Hamilton County, Ohio Comments, PS Docket 08-51 (filed June 27, 2008), at 2 (Hamilton County Comments); NATOA Comments at 2; T-Mobile Comments, PS Docket 08-51 (filed June 30, 2008), at 6-7; Stephen Weinstein Comments, PS Docket 08-51 (filed April 14, 2008), at 1 (Weinstein Comments); ARN Reply Comments, PS Docket 08-51 (filed July 29, 2008), at 2 (ARN Reply Comments); Petitioners Reply Comments at 3; Verizon Reply Comments, PS Docket 08-51 (filed July 29, 2008), at 2.

practice of distributing NSI devices.”⁷⁰ APCO similarly indicated that “our understanding is that current programs [for at-risk individuals] only distribute handsets that have at least limited carrier- subscription status and are ‘service initialized.’”⁷¹ This also seems to indicate a decreasing need for the NSI rule due to fewer NSI devices in circulation.

21. Two public safety commenters also argued that eliminating the NSI requirement would eliminate false expectations among NSI device users who are unaware that NSI devices do not provide 911 call-back capability or Phase II location information.⁷² According to King County, “[s]ome of our most vulnerable populations, such as the elderly, are depending on NSI phones as their contact with emergency services, yet they are the least capable of overcoming the lack of E911 features, such as no call-back number or location. If their 911 call gets disconnected, as is frequent with wireless service, they may not understand that the PSAP cannot call them back or respond unless they initiate another call to 911.”⁷³

22. Other commenters, however, argued that the public has come to rely on the fact that NSI devices are 911-capable, and that eliminating the call-forwarding requirement could lead to tragic results given this public reliance.⁷⁴ CTIA, for example, stated that the public now has a “reasonable expectation that all wireless 911 calls will terminate at a PSAP.”⁷⁵ Likewise, the Petitioners noted that they “while [they] are sympathetic to those comments that call for an outright FCC reversal of the ‘forward all’ calls rule, [they] cannot support such a request at this time because there remain a significant number of legitimate 9-1-1 calls from NSI devices (even if they represent a low percentage of all NSI calls).”⁷⁶ California highlighted that “[c]alls from non-initialized phones have saved many lives” while Maryland indicated that 30% of calls to 911 from NSI handsets were legitimate in Montgomery County during the one-month period studied in 2008.⁷⁷ Vermont also questions the availability of low-cost service-initialized devices⁷⁸ Vermont further states that it is “puzzled by the comment that calls on these devices

⁷⁰ NENA Comments, PS Docket Nos. 10-255, 11-153, 12-333 (filed Dec. 13, 2012), at 21 (2012 NENA Comments).

⁷¹ APCO PN Comments at 2-3.

⁷² See King County Comments at 8; Livingston County, New York, Sheriff Comments, PS Docket 08-51 (filed April 29, 2008), at 3 (Livingston County Comments) (“callers [using NSI phones] at the time of an emergency scream help into a phone that cannot be tracked using Phase II (latitude and longitude) technology.”). We note, however, that it appears that at least some NSI devices do, in fact, provide Phase II location information. See, e.g., Vermont Enhanced 9-1-1 Board Comments, PS Docket 08-51 (filed April 4, 2013), at 1-2 (Vermont PN Comments); Sonoma County PN Comments at 3.

⁷³ King County Comments at 8. King County also maintained that because 911 callers using NSI devices do not pay for service, they should not expect to have access to 911 services for free. *Id.* at 7. See also Clinton County Comments at 2 (“[i]n Illinois, the 9-1-1 systems are funded through surcharges on both wireline and initialized wireless phones. The NSI phones pay no surcharge and are in essence freeloading.”).

⁷⁴ See ARN Comments at 6-7; AT&T Comments at 4; CTIA Comments at 1, 4, 7; CTIA Reply Comments at 1; Hamilton County Comments at 2; NATOA Comments at 2; T-Mobile Comments at 6-7; Weinstein Comments at 1; ARN Reply Comments at 2; Petitioners Reply Comments at 3; Verizon Reply Comments at 2; Vermont PN Comments at 1; Sonoma County PN Comments at 3.

⁷⁵ CTIA Comments at 3.

⁷⁶ Petitioners Reply Comments at 3.

⁷⁷ California Comments at 2; Maryland Emergency Number Systems Board Comments, PS Docket 08-51 (filed June 30, 2008), at 3 (Maryland Comments).

⁷⁸ Vermont PN Comments at 1-2.

do not include location information, [our review] clearly identified a high percentage of calls from NSI devices that arrive with Phase II location information.”⁷⁹

23. Accordingly, we seek comment on the extent to which the public, especially lower-income populations, the elderly, and other vulnerable segments of society, still rely on the use of NSI devices to seek emergency assistance. Has such reliance decreased, increased, or remained the same? Would consumers who presently use NSI devices to call 911 be able to effectively utilize other means of accessing 911? To what extent are “911-only” wireless handsets that rely on the NSI rule to enable a caller to reach a PSAP in use today?⁸⁰ Are CMRS providers or third parties continuing to support NSI phone donation programs, and if so, are figures available for the number of phone donations within the last five years?

B. Sunset of the NSI Requirement after a Reasonable Transition Period

24. *Background.* In the *E911 Second Report and Order*, the Commission declined to eliminate the 911 call-forwarding requirement for NSI devices because “[a]bolishing the requirement at this stage would restrict basic 911 service and result in the inability of many non-initialized wireless phone users to reach help in the event of an emergency.”⁸¹ However, in the subsequent *Notice of Inquiry*, the Commission noted that the evidence suggested that NSI devices were the source of an “overwhelming number” of fraudulent 911 calls and sought comment regarding whether it should eliminate the NSI requirement.⁸² In response to the *Notice of Inquiry*, a significant number of public safety commenters advocated for elimination of the rule. Washington, for example, asserted that there is “no justification in retaining the rules permitting calls to 911 [from] non-initialized handsets.”⁸³ More recently, NENA stated that there is now a “consensus view that the promotion of NSI devices does more harm than good.”⁸⁴

25. Accordingly, the *2013 PN* sought comment, in particular, “on whether other interested parties agree or disagree with NENA’s view that the Commission should consider phasing out the call-forwarding requirement as it applies to NSI devices.”⁸⁵ The subsequent record indicates that APCO now also agrees “that the FCC should eliminate the requirement that wireless carriers forward to PSAPs 9-1-1 calls from NSI handsets,” as do two other public safety commenters.⁸⁶ Other commenters in the record

⁷⁹ See *id.* Sonoma County and Spokane County likewise indicate that calls from NSI devices often come with Phase II location information. See Sonoma County *2013 PN* Comments at 3; Spokane County Comments at 1.

⁸⁰ We note that some “911 only” phones use landline or VoIP service, and therefore are outside the scope of the NSI rule.

⁸¹ *E911 Second Report and Order*, 17 FCC Rcd at 8489 ¶ 24.

⁸² *Notice of Inquiry* at ¶¶ 19-20.

⁸³ Washington Comments at 1. See also Clinton County Comments at 3 (“Rescind the requirement for carriers to provide 9-1-1 service to NSI phones.”); Connecticut Comments at 2 (stating that the Commission should “turn those [NSI] phones OFF”)(emphasis in original); King County Comments at 1 (“consider ... denying access to the wireless networks from NSI phones”); Livingston County Comments at 3 (Livingston County Comments) (“Livingston County ... would request the FCC evaluate and strongly support elimination of call-forwarding requirements for NSI devices.”); Mahn Comments at 1 (“[T]he general welfare, safety, and security of the community [should] be given precedence over the random and individual benefit that may accrue to the user of a NIP, which incidental benefit should not be given equal weight when balanced against the overriding issues of public safety.”). See also 2012 NENA Comments at 20 (“The Commission should eliminate the rules requiring Non-Service Initialized phones to be capable of completing a call to 9-1-1.”)

⁸⁴ See 2012 NENA Comments at 21.

⁸⁵ See *2013 PN* at 3.

⁸⁶ See APCO *PN* Comments at 2; Peoria *PN* Comments at 1; Texas 911 Entities Comments, PS Docket 08-51 (filed May 16, 2013), at 3 (Texas Entities *PN* Comments).

disagree and continue to advocate retention of the NSI requirement.⁸⁷ These commenters argue that the public has come to rely on the fact that NSI devices are 911-capable, and that given this public reliance, eliminating the call-forwarding requirement could lead to tragic results.⁸⁸

26. *Discussion.* We believe that, based on the record to date, the concerns that led the Commission to adopt the NSI rule in 1996, and to retain it twelve years ago,⁸⁹ are less relevant today, and that it is now in the public interest to sunset the requirement. As discussed above, the record suggests that fraudulent calls to 911 from NSI devices constitute a large and continuing drain on public safety resources and that the problem is not abating. Moreover, it appears there is now less public need for the NSI rule than at the time the Commission implemented it. Indeed, while the Commission implemented the NSI rule in large part at the urging of public safety entities, including NENA and APCO, both of these entities now favor elimination of the rule.⁹⁰

27. Additionally, impending technological changes in carrier networks are likely to make the NSI call-forwarding rule less effective in protecting consumers while increasing the cost of implementation. As carriers migrate their networks away from legacy 2G technology,⁹¹ 2G-only NSI handsets will no longer be technically capable of supporting 911 call-forwarding. If we retain the NSI rule, this technological shift is likely to create confusion among the very consumers that have retained older-generation NSI handsets for their 911 capability. Moreover, retaining the rule will impose added costs on carriers to implement NSI call-forwarding capability in 3G and 4G networks. While we recognize that public safety interests are driven by more than economic considerations, we believe that avoiding these added costs by sunseting the rule will have significant net cost benefits for carriers, in addition to eliminating the burden of fraudulent 911 calls on first responders as discussed above. Conversely, we believe that any cost to carriers associated with removing NSI call-forwarding capability from their networks will be relatively minor.⁹² For all of these reasons, we believe that the costs of retaining the NSI rule appear to outweigh the benefits. We therefore propose to sunset the NSI rule after a six-month transition period.

28. Based on the comments advocating for elimination of the rule,⁹³ we believe that a uniform, nationwide deadline to sunset the NSI requirement would best address the concerns that have been raised in the record regarding the prevalence of fraudulent calls from NSI devices. Livingston County expressly indicated support for a single cut-off date for elimination of the NSI requirement.⁹⁴ Further, a uniform sunset date would provide the greatest certainty to the public, as well as to PSAPs and CMRS providers, and would be easiest for all parties to administer. We also believe that any necessary consumer education and outreach regarding a uniform deadline would be less burdensome than for an alternative “phase-out” approach, as it would avoid public confusion with respect to timing and with regard to which NSI devices could and could not call 911. We therefore believe that this method of

⁸⁷ See ¶ 23, *supra*.

⁸⁸ *See id.*

⁸⁹ *See E911 First Report and Order* (1996); *E911 Second Report and Order* (2002).

⁹⁰ *See NENA Ex Parte* at 1; APCO PN Comments at 2.

⁹¹ For example, AT&T has announced plans “to sunset its 2G network by approximately January 1, 2017.” *See* <http://cd2migration.att.com/>.

⁹² We seek comment on this issue in Section III.D., *infra*.

⁹³ *See* footnote 86, *supra*.

⁹⁴ Livingston County Comments at 3-4 (“Set a date no more [than] three (3) months in advance advising Non-Initialized Phones, including 911 service, will no longer work.”).

eliminating the NSI requirement best balances the needs of the public, public safety, and CMRS providers. We seek comment on this proposed approach and on our analysis.

29. We also seek comment on other possible transition approaches. For example, NENA has suggested that the Commission phase out the NSI rule “for devices and networks that no longer support legacy circuit-switched voice calling.”⁹⁵ NENA reasoned that this “will minimize stranded investments by carriers and consumers as carriers transition to fully IP-based architectures such as LTE and as consumers transition to IP-only devices that no longer support circuit-switched voice services.”⁹⁶ Alternatively, we seek comment on whether to eliminate the NSI requirement for new wireless devices sold after a particular date, thus grandfathering the 911 call-forwarding capability for existing NSI devices.

30. In the event that we do sunset the NSI rule, we would seek to educate consumers during the transition on whether their particular NSI device will allow them to reach 911, and on how to ensure continued, uninterrupted access to 911. We recognize that the public is increasingly reliant on wireless technology for their basic communications needs and that many persons have elected to do without landline telephone service.⁹⁷ With this in mind, we believe that elimination of the NSI rule must be accompanied by sufficient public education and outreach to ensure that the public is aware that they can no longer call 911 from NSI devices prior to loss of that capability, but that there are low-cost options for replacing such devices.

31. Accordingly, we propose to allow a six-month transition period for service providers, public interest organizations, and other interested parties to engage in this educational outreach process, and seek comment on this proposal. We also seek comment on the necessary components of such an education and outreach effort, and on implementation of these components.

32. Finally, assuming that the NSI call-forwarding rule is eliminated after a transition period, should CMRS providers be allowed to forward 911 calls from NSI devices at their discretion on a voluntary basis, or should we prohibit NSI call forwarding? What is the likelihood that CMRS providers would voluntarily continue to forward 911 calls from NSI devices? Would allowing them to do so reduce the benefits of eliminating the NSI requirement?

C. Protecting Calls to 911 from Service-Initialized Devices that May Appear to be NSI Devices

33. *Background.* The obligation of CMRS providers to transmit 911 calls without regard to their call validation process ensures that wireless customers are able to access life-saving emergency services without delay. This obligation to connect 911 calls from service-initialized devices ensures, for example, that customers have access to 911 when traveling in areas where service may be provided by another provider which does not have a roaming agreement with the customer’s provider or when a wireless customer’s provider is experiencing a network outage. We do not propose to alter the obligation of CMRS providers to connect calls from devices that have a valid agreement with any CMRS provider at the time of the 911 call.

34. The record indicates, however, that in certain circumstances a service-initialized device may appear to be an NSI device to a CMRS provider’s network. For example, according to the Petitioners, “devices can also become NSI in the following situations: (1) when a phone has not completed registration at the time a 9-1-1 call is placed; (2) when calls are placed from areas of weak or no signal for one carrier that receive a signal from another carrier; (3) when calls are made from a handset

⁹⁵ See *NENA Ex Parte* at 2.

⁹⁶ See *id.*

⁹⁷ See, e.g., Wireless E911 Location Accuracy Requirements, PS Docket No. 07-114, *Third Further Notice of Proposed Rulemaking*, 29 FCC Rcd 2374, 2386 ¶ 28 (2014).

that selects the strongest signal, which may not be the subscriber's carrier; (4) for calls placed by consumers roaming in areas with or without automatic roaming agreements; (5) for calls placed on foreign phones; or (6) because of normal network events, system reboots, and other circumstances that can occur during mobile switching center ('MSC') to MSC handoffs, for several seconds after the phone is powered on, and as the phone recovers from loss of service in a tunnel."⁹⁸ We also observe that, when pre-paid phones have run out of minutes, they become *de facto* NSI devices until the user pays for more pre-paid minutes.

35. *Discussion.* We seek comment on how calls to 911 from service-initialized devices that may appear to be NSI might be affected, in the event we sunset the requirement to transmit calls from NSI devices. Is this an extensive issue of concern? For example, in what specific circumstances would a service-initialized device nevertheless appear to a CMRS network as an NSI device? If we were to sunset the NSI requirement, is there a way to ensure that such service-initialized devices could still call 911? What would be the cost of implementing such a solution? We are also concerned that consumers with service-initialized phones could be at risk if they were to lose 911-capability immediately following a CMRS provider's stoppage of service for non-payment. Would be in the public interest to require all CMRS providers to continue to forward calls to 911 from such devices for a certain "grace period" following stoppage of service? If so, what would be the proper length of such a grace period? Should it differ based on whether the device is pre-paid or post-paid? Alternatively, rather than establishing a grace period, would it be sufficient for CMRS providers to send automated messages to pre-paid customers when their minutes are about to expire, warning them that if they do not extend their pre-paid service their devices will not support 911 calling? We seek comment on these and any other related issues.

D. Technical and Operational Considerations Relating to Sunset of the NSI Rule

36. In this section, we seek to determine what technical and operational changes, if any, CMRS providers and/or PSAPs would need to implement in conjunction with the sunset of the NSI rule, including the timeframe needed to implement any such changes, as well as the costs involved. We also seek to determine how these answers might vary depending on whether we sunset the rule on a date certain or whether we phase out the rule.

37. What network modifications or other technical and operational changes would CMRS providers need to undertake, if any, if we were to sunset the NSI requirement as of a date certain? How long would it take to implement these changes? At what cost? We anticipate that any costs associated with discontinuing call-forwarding of 911 calls from NSI devices as of the six-month sunset date proposed above would be relatively minor. Is this assumption correct? We also seek comment on what, if anything, PSAPs would need to do to accommodate the sunset of the NSI requirement after six months. Would PSAPs incur any costs or are there timing considerations that we should take into account? Alternatively, what technical and operational changes would CMRS providers and PSAPs need to implement if were we to phase out the NSI requirement rather than sunset the rule on a uniform date?

E. Alternative Approaches to the Problem of Fraudulent NSI 911 Calls

38. We recognize that sunsetting the NSI rule is not the only means of reducing the incidence of fraudulent calls to 911 from such devices. In the *Notice of Inquiry*, the Commission examined the possibility of blocking NSI devices used to make fraudulent 911 calls while retaining the NSI rule itself,

⁹⁸ See Petitioners Reply Comments at 3-4. See also *Texas Entities 2013 PN* Comments at 3 n 8 ("[N]ormal network timeouts or service loss . . . , until the network recovers, will make a validly subscribe phone appear to the network to be an NSI phone."); *Sonoma County 2013 PN* Comments at 3 (even service-initialized devices may appear to be NSI calls "when out of reach of their provider's network."); *AT&T 2013 PN* Comments at 3 (stating that "handsets of non-valid roaming providers—would not have to be processed").

and sought comment on suggestions for making blocking a more viable option for CMRS providers, as well as on other possible solutions.⁹⁹

39. We seek comment on whether call-blocking is a viable alternative to sunseting the NSI rule. While Commission rules generally require CMRS providers to forward all 911 calls to PSAPs, including calls from NSI devices, they do not prohibit CMRS providers from blocking fraudulent 911 calls “pursuant to applicable state and local law enforcement procedures.”¹⁰⁰ Nevertheless, the Petition asserted that CMRS providers refuse to honor PSAP blocking requests due to “technical and legal concerns.”¹⁰¹ In response to the *Notice of Inquiry*, many commenters – both CMRS provider and public safety – cited technical and legal problems that continue to make blocking calls difficult.¹⁰² We seek comment on these views.

40. In the *Notice of Inquiry*, the Commission requested comment on two other alternative approaches to address the problem of fraudulent 911 calls from NSI devices: (1) implementing call-back capabilities for NSI devices, and (2) requiring CMRS provider-sponsored device donation programs to provide service-initialized devices.¹⁰³ We seek further comment on the relative costs and benefits of these proposals as alternatives to sunseting the NSI rule.

IV. PROCEDURAL MATTERS

A. Ex Parte Presentations

41. The proceedings initiated by this NPRM shall be treated as “permit-but-disclose” proceedings in accordance with the Commission’s *ex parte* rules.¹⁰⁴ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must: (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made; and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native

⁹⁹ *Notice of Inquiry*, 23 FCC Rcd at 6101 ¶ 10.

¹⁰⁰ See *E911 Fraudulent Call-Blocking Public Notice*, 17 FCC Rcd at 21877 (explaining that 47 C.F.R. § 20.18(b) does not preclude blocking in such instances).

¹⁰¹ Petition at 12.

¹⁰² See AT&T Comments at 6-7; CTIA Comments at 7-9; Indiana Comments at 3; TeleCommunications Systems, Inc. Comments, PS Docket No. 08-51 (filed June 30, 2008), at 7-8 (TCS Comments); King County Comments at 4-5; T-Mobile Comments at 7; Rural Cellular Association Reply Comments, PS Docket No. 08-51 (filed July 29, 2008), at 3 (RCA Reply Comments); Verizon Reply Comments at 4, 8.

¹⁰³ *Notice of Inquiry*, 23 FCC Rcd at 6104-05 ¶¶ 18-23.

¹⁰⁴ 47 C.F.R. §§ 1.1200 *et seq.*

format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

B. Comment Filing Procedures

42. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments in response to this NPRM on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.

- Paper Filers: Parties that choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

C. Accessible Formats

43. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

D. Regulatory Flexibility Analysis

44. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 604, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The IRFA is set forth in Appendix B. Written public comments are requested in the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in response to this NPRM as set forth on the first page of this document, and have a separate and distinct heading designating them as responses to the IRFA.

E. Paperwork Reduction Act Analysis

45. This document contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements

contained in this document, as required by Paperwork Reduction Act of 1995 (PRA), Public Law No. 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002,¹⁰⁵ we seek specific comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”¹⁰⁶

V. ORDERING CLAUSES

46. Accordingly, we ADOPT, pursuant to Sections 1, 4(i), 4(j), 303(r) and 332 of the Communications Act of 1934, 47 U.S.C. §§ 151, 154(i), 154(j), 303(r), 332, this Notice of Proposed Rulemaking.

47. We further ORDER that the Commission’s Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

¹⁰⁵ Pub. L. No. 107-198.

¹⁰⁶ 44 U.S.C. § 3506(c)(4).

APPENDIX A

List of Comments and Reply Comments

<u>Commenter</u>	<u>Notice of Inquiry – Comments</u>	<u>Abbreviation</u>
Amelia County, Virginia, Sheriff		Amelia County
American Roaming Network		ARN
AT&T, Inc.		AT&T
California Department of General Services		California
Clinton County, Illinois ETSB (Skain)		Clinton County
Connecticut Enhanced 9-1-1 Commission		Connecticut
CTIA – The Wireless Association		CTIA
Adams County E911 (Fode)		Adams County
Hamilton County, Ohio (Wenz)		Hamilton County
Indiana Wireless 911 Advisory Board		Indiana
Indigital Telecom		Indigital
Intrado, Inc.		Intrado
Kentucky Office of the 911 Coordinator		Kentucky
King County, Washington, E911 Program (Davis)		King County
Laredo, Texas, City of		Laredo
Livingston County, New York, Sheriff		Livingston County
Mahn, Michael, Esq.		Mahn
Maine Dept. of Public Safety		Maine
Maryland Emergency Number Systems Board		Maryland
National Association of Telecommunications Officers and Advisors		NATOA
North Carolina 911 Board		North Carolina
Putnam County, Tennessee, 9-1-1 Center		Putnam County
Shelby County, Tennessee, 9-1-1 District (Chiozza)		Shelby County
Spokane County, Washington, 911 (McCormick)		Spokane County
Stop Accidental Cell Calls		SACC
TeleCommunication Systems, Inc.		TCS
Texas 9-1-1 Alliance		Texas Alliance
Tillman, Michael		Tillman
T-Mobile USA, Inc.		T-Mobile
Washington State E911 Administrator		Washington
Waukesha County, Wisconsin, Communications Center		Waukesha County
Weinstein, Stephen		Weinstein
Pennsylvania Bureau of 9-1-1 Programs (Wentzel)		Wentzel
YMax Corp.		YMax

Reply Comments

American Roaming Network	ARN
CTIA – The Wireless Association	CTIA
Tennessee Emergency Communications Board, the National Association of State 9-1-1 Administrators the Michigan State 9-1-1 Office, the New Jersey State 9-1-1 Commission, the Snohomish County Enhanced 9-1-1 Office, the National Emergency Number Association, the Association of Public-Safety Communications Officials International, the State of Montana 911 Program, and the Washington State E911 Program	Petitioners

Rural Cellular Association	RCA
Stop Accidental Cell Calls	SACC
Verizon Wireless	Verizon
Washington State E911 Administrator	Washington
YMax Corp.	Ymax

2013 Public Notice – Comments

Association of Public-Safety Communications Officials	APCO
AT&T Inc.	AT&T
Sonoma County, California, Sheriff	Sonoma County
Texas 911 Entities	Texas Entities
Peoria, Illinois Emergency Communications Center (Tuttle)	Peoria
Vermont Enhanced 9-1-1 Board	Vermont

2013 Public Notice – Reply Comments

Tennessee Emergency Communications Board	Tennessee
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APPENDIX B**Proposed Rules**

Part 20 of the Code of Federal Regulations is amended as follows:

PART 20 – COMMERCIAL MOBILE RADIO SERVICES

1. Section 20.18 is amended by revising paragraph (b) and adding paragraph (1)(4), to read as follows:

(b) *Basic 911 Service.* CMRS providers subject to this section must transmit all wireless 911 calls without respect to their call validation process to a Public Safety Answering Point, or, where no Public Safety Answering Point has been designated, to a designated statewide default answering point or appropriate local emergency authority pursuant to § 64.3001 of this chapter, provided that “all wireless 911 calls” is defined as “any call initiated by a wireless user dialing 911 on a phone using a compliant radio frequency protocol of the serving carrier.” After [insert date six months from the effective date of the Order], the requirements of this section will no longer apply to calls from non-service-initialized handsets as defined in paragraph (1)(3)(i) of this section.

(1) *Non-service-initialized handsets.*

(4) *Sunset.* The requirements of this paragraph shall cease to be effective [insert date six months from the effective date of the Order].

APPENDIX C

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact of the proposal described in the attached Notice of Proposed Rulemaking on small entities. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments in the Notice of Proposed Rulemaking. The Commission will send a copy of the Notice of Proposed Rulemaking, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the Notice of Proposed Rulemaking and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. In this NPRM, we address regulatory concerns raised by non-service initialized (NSI) devices. The Commission's rules require commercial mobile radio service (CMRS) providers subject to the 911 rules to transmit all wireless 911 calls, including those originated from "non-service-initialized" (NSI) devices, to Public Safety Answering Points (PSAPs).⁴ A NSI device is a mobile device for which there is no valid service contract with a CMRS provider.⁵ Examples of NSI devices include prepaid cell phones with expired minutes, devices under an expired contract, donated cell phones, and "911-only" devices that are configured solely to make emergency calls.⁶ NSI devices by their nature have no associated subscriber name and address, and do not provide Automatic Number Identification (ANI)⁷ or call-back features. As a result, when a caller uses a NSI device to call 911, the PSAP typically cannot identify the caller.

3. While the 911 calling capability of NSI devices initially provided significant public safety benefits by increasing the public's access to 911, those benefits have greatly decreased due to changed call validation methods and the increase in low-cost options for wireless services. Moreover, the inability of PSAPs to identify the caller on an NSI device creates significant difficulty for them when a caller uses a NSI device to place fraudulent⁸ non-emergency calls to the PSAP. Numerous PSAPs around the nation have reported that fraudulent and harassing calls from NSI devices are a persistent and significant problem that requires action. In February 2008, a group of public safety entities filed a

¹ 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² 5 U.S.C. § 603(a).

³ 5 U.S.C. § 603(a).

⁴ 47 C.F.R. § 20.18(b).

⁵ 47 C.F.R. § 20.18(l)(3)(i).

⁶ *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Memorandum Opinion and Order*, 18 FCC Rcd 23383, 23384 ¶ 3 (2003) (*E911 Second Memorandum Opinion and Order*). According to the Petitioners, "donated phones appear to be only a small portion of the problem, with the bulk of troublesome devices being old equipment no longer in use, often given to children to play with." *See* Petitioners Reply Comments at 2.

⁷ "ANI" is defined at 47 C.F.R. § 20.3 as a "system that identifies the billing account for a call. For 911 systems, the ANI identifies the calling party and may be used as a call back number."

⁸ For purposes of this proceeding, we use the term "fraudulent" to denote intentional calls made to 911 where no emergency exists, which may include hang-ups, false reports of emergencies, and harassing or prank calls to 911 operators.

petition requesting that the Commission examine the issue. In response to the petition, the Commission adopted a *Notice of Inquiry* in April 2008 to enhance our understanding of fraudulent and harassing 911 calls made from NSI devices and to explore potential solutions.⁹

4. In this NPRM, the Commission proposes to sunset the NSI rule after a six month transition period that will allow for public outreach and education. It also seeks comment on alternative approaches to addressing the issue of fraudulent calls from NSI devices.

B. Legal Basis

5. The legal basis for any action that may be taken pursuant to this Notice of Proposed Rulemaking is contained in Sections 1, 4(i), 4(j), 303(r) and 332 of the Communications Act of 1934, 47 U.S.C. §§ 151, 154(i), 154(j), 303(r), 332.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

6. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules.¹⁰ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹¹ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹² A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).¹³

7. *Small Businesses, Small Organizations, and Small Governmental Jurisdictions.* Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.¹⁴ First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA.¹⁵ In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹⁶ Nationwide, as of 2007, there were approximately 1,621,315 small organizations.¹⁷ Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹⁸ Census Bureau data for 2011 indicate that there were 89,476

⁹ See Petition for a Notice of Inquiry Regarding 911 Call-Forwarding Requirements and Carriers’ Blocking Options for Non-Initialized Phones, PS Docket 08-51, *Notice of Inquiry*, 23 FCC Rcd 6097 (2008) (Notice of Inquiry).

¹⁰ 5 U.S.C. §§ 603(b)(3), 604(a)(3).

¹¹ 5 U.S.C. § 601(6).

¹² 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

¹³ 15 U.S.C. § 632.

¹⁴ See 5 U.S.C. §§ 601(3)–(6).

¹⁵ See SBA, Office of Advocacy, “Frequently Asked Questions,” web.sba.gov/faqs (figures are from 2009).

¹⁶ 5 U.S.C. § 601(4).

¹⁷ INDEPENDENT SECTOR, *THE NEW NONPROFIT ALMANAC & DESK REFERENCE* (2010).

¹⁸ 5 U.S.C. § 601(5).

local governmental jurisdictions in the United States.¹⁹ We estimate that, of this total, as many as 88, 506 entities may qualify as “small governmental jurisdictions.”²⁰ Thus, we estimate that most governmental jurisdictions are small.

1. Telecommunications Service Entities

a. Wireless Telecommunications Service Providers

8. Pursuant to 47 C.F.R. § 20.18(a), the Commission’s 911 service requirements are only applicable to Commercial Mobile Radio Service (CMRS) “[providers], excluding mobile satellite service operators, to the extent that they: (1) Offer real-time, two way switched voice service that is interconnected with the public switched network; and (2) Utilize an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls. These requirements are applicable to entities that offer voice service to consumers by purchasing airtime or capacity at wholesale rates from CMRS licensees.”

9. Below, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

10. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.²¹ Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.”²² Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.²³ For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.²⁴ Of those 1,383, 1,368 had fewer than 100

¹⁹ U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2011, Table 427 (2007).

²⁰ The 2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 small governmental organizations in 2007. If we assume that county, municipal, township and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,125. If we make the same assumption about special districts, and also assume that special districts are different from county, municipal, township, and school districts, in 2007 there were 37,381 special districts. Therefore, of the 89,476 small governmental organizations documented in 2007, as many as 89,506 may be considered small under the applicable standard. This data may overestimate the number of such organizations that has a population of 50,000 or less. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES 2011, Tables 427, 426 (Data cited therein are from 2007).

²¹ U.S. Census Bureau, 2007 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”; <http://www.census.gov/naics/2007/def/ND517210.HTM#N517210>.

²² U.S. Census Bureau, 2002 NAICS Definitions, “517211 Paging”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>; U.S. Census Bureau, 2002 NAICS Definitions, “517212 Cellular and Other Wireless Telecommunications”; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

²³ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

²⁴ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small.

11. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging” and “Cellular and Other Wireless Telecommunications.” Under both categories, the SBA deems a wireless business to be small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category 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. Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category 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, under this second category and size standard, the majority of firms can, again, be considered small.

12. *Incumbent Local Exchange Carriers (Incumbent LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.²⁵ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1000 or more. According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.²⁶ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.²⁷ Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the Notice. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small.²⁸

13. *A Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.²⁹ Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers can be considered small entities.³⁰ According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive

²⁵ 13 C.F.R. § 121.201, NAICS code 517110.

²⁶ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

²⁷ See *id.*

²⁸ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

²⁹ 13 C.F.R. § 121.201, NAICS code 517110.

³⁰ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-geo_id=&-_skip=600&-ds_name=EC0751SSSZ5&-_lang=en.

local exchange services or competitive access provider services.³¹ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.³² In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.³³ In addition, 72 carriers have reported that they are Other Local Service Providers.³⁴ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.³⁵ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the Notice.

14. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.³⁶ For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.³⁷ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.³⁸ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.³⁹ On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.⁴⁰ Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

15. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.⁴¹ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February

³¹ See *Trends in Telephone Service* at Table 5.3.

³² See *id.*

³³ See *id.*

³⁴ See *id.*

³⁵ See *id.*

³⁶ See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule; WT Docket No. 96-59, GN Docket No. 90-314, *Report and Order*, 11 FCC Rcd 7824, 7850–52 ¶¶ 57–60 (1996) (*PCS Report and Order*); see also 47 C.F.R. § 24.720(b).

³⁷ See *PCS Report and Order*, 11 FCC Rcd at 7852 ¶ 60.

³⁸ See *Alvarez Letter 1998*.

³⁹ See *Broadband PCS, D, E and F Block Auction Closes*, *Public Notice*, Doc. No. 89838 (rel. Jan. 14, 1997).

⁴⁰ See *C, D, E, and F Block Broadband PCS Auction Closes*, *Public Notice*, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees, WT Docket No. 97-82, *Fourth Report and Order*, 13 FCC Rcd 15743, 15768 ¶ 46 (1998).

⁴¹ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, *Public Notice*, 16 FCC Rcd 2339 (2001).

15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.⁴² On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.⁴³ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.⁴⁴ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.⁴⁵ Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.⁴⁶

16. *Narrowband Personal Communications Services.* To date, two auctions of narrowband personal communications services (PCS) licenses have been conducted. For purposes of the two auctions that have already been held, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order.⁴⁷ A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. The SBA has approved these small business size standards.⁴⁸

17. *Specialized Mobile Radio.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.⁴⁹ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.⁵⁰ The SBA has approved these small business size standards for the 900 MHz Service.⁵¹ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz

⁴² See Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58, *Public Notice*, 20 FCC Rcd 3703 (2005).

⁴³ See Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71, *Public Notice*, 22 FCC Rcd 9247 (2007).

⁴⁴ *Id.*

⁴⁵ See Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78, *Public Notice*, 23 FCC Rcd 12749 (WTB 2008).

⁴⁶ *Id.*

⁴⁷ Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 15 FCC Rcd 10456 (2000).

⁴⁸ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Dec. 2, 1998).

⁴⁹ 47 C.F.R. § 90.814(b)(1).

⁵⁰ *Id.*

⁵¹ See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated Aug. 10, 1999.

SMR band.⁵² A second auction for the 800 MHz band was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.⁵³

18. The auction of the 1,050 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard.⁵⁴ In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded⁵⁵. Of the 22 winning bidders, 19 claimed “small business” status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

19. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1500 or fewer employees.⁵⁶ We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

20. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)*). For the AWS-1 bands, the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million.⁵⁷ In 2006, the Commission conducted its first auction of AWS-1 licenses.⁵⁸ In that initial AWS-1 auction, 31 winning bidders identified themselves as very small businesses.⁵⁹ Twenty-six of the winning bidders identified themselves as small businesses.⁶⁰ In a subsequent 2008 auction, the Commission offered 35 AWS-1 licenses.⁶¹ Four winning bidders identified themselves as very small

⁵² See “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

⁵³ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

⁵⁴ See “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (2000).

⁵⁵ See, “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (2000).

⁵⁶ See generally 13 C.F.R. § 121.201, NAICS code 517210.

⁵⁷ See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, *Report and Order*, 18 FCC Rcd 25,162, App. B (2003), *modified by* Service Rules for Advanced Wireless Services In the 1.7 GHz and 2.1 GHz Bands, *Order on Reconsideration*, 20 FCC Rcd 14,058, App. C (2005).

⁵⁸ See “Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction No. 66,” AU Docket No. 06-30, *Public Notice*, 21 FCC Rcd 4562 (2006) (“*Auction 66 Procedures Public Notice*”).

⁵⁹ See “Auction of Advanced Wireless Services Licenses Closes; Winning Bidders Announced for Auction No. 66,” *Public Notice*, 21 FCC Rcd 10,521 (2006) (“*Auction 66 Closing Public Notice*”).

⁶⁰ See *id.*

⁶¹ See *AWS-1 and Broadband PCS Procedures Public Notice*, 23 FCC Rcd at 7499. Auction 78 also included an auction of broadband PCS licenses.

businesses, and three of the winning bidders identified themselves as a small business.⁶² For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but has proposed to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.⁶³

21. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”). In the present context, we will use the SBA’s small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.⁶⁴ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

22. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses in the 2305-2320 MHz and 2345-2360 MHz bands. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁶⁵ The SBA has approved these definitions.⁶⁶ The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

23. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, the Commission applies the small business size standard under the SBA rules applicable. The SBA has deemed a wireless business to be small if it has

⁶² See “Auction of AWS-1 and Broadband PCS Licenses Closes, Winning Bidders Announced for Auction 78, Down Payments Due September 9, 2008, FCC Forms 601 and 602 Due September 9, 2008, Final Payments Due September 23, 2008, Ten-Day Petition to Deny Period,” *Public Notice*, 23 FCC Rcd 12,749 (2008).

⁶³ Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands et al., *Notice of Proposed Rulemaking*, 19 FCC Rcd 19,263, App. B (2005); Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band, *Notice of Proposed Rulemaking*, 22 FCC Rcd 17,035, App. (2007); Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band, *Further Notice of Proposed Rulemaking*, 23 FCC Rcd 9859, App. B (2008).

⁶⁴ NAICS Code 51210.

⁶⁵ Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS), *Report and Order*, 12 FCC Rcd 10785, 10879 ¶ 194 (1997).

⁶⁶ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated December 2, 1998.

1,500 or fewer employees.⁶⁷ For this service, the SBA uses the category of Wireless Telecommunications Carriers (except Satellite). Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.⁶⁸ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small.

24. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the *220 MHz Third Report and Order*, the Commission adopted a small business size standard for defining “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁶⁹ This small business standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.⁷⁰ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.⁷¹ The SBA has approved these small size standards.⁷² Auctions of Phase II licenses commenced on and closed in 1998.⁷³ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.⁷⁴ Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.⁷⁵ A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.⁷⁶ In 2007, the Commission conducted a fourth auction of the 220 MHz licenses.⁷⁷ Bidding credits were offered to small businesses. A bidder with attributed average annual gross revenues that exceeded \$3 million and did not exceed \$15 million for the preceding three years (“small business”) received a 25 percent discount on its winning bid. A bidder with attributed average annual gross revenues that did not exceed \$3 million for the preceding three years received a 35 percent discount on its winning

⁶⁷ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁶⁸ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

⁶⁹ Amendment of Part 90 of the Commission’s Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, *Third Report and Order*, 12 FCC Rcd 10943, 11068-70 ¶¶ 291-295 (1997).

⁷⁰ *Id.* at 11068 ¶ 291.

⁷¹ *Id.*

⁷² See Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated January 6, 1998 (*Alvarez to Phythyon Letter 1998*).

⁷³ See generally “220 MHz Service Auction Closes,” *Public Notice*, 14 FCC Rcd 605 (WTB 1998).

⁷⁴ See “FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made,” *Public Notice*, 14 FCC Rcd 1085 (WTB 1999).

⁷⁵ See “Phase II 220 MHz Service Spectrum Auction Closes,” *Public Notice*, 14 FCC Rcd 11218 (WTB 1999).

⁷⁶ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

⁷⁷ See “Auction of Phase II 220 MHz Service Spectrum Scheduled for June 20, 2007, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction 72,” *Public Notice*, 22 FCC Rcd 3404 (2007).

bid (“very small business”). Auction 72, which offered 94 Phase II 220 MHz Service licenses, concluded in 2007.⁷⁸ In this auction, five winning bidders won a total of 76 licenses. Two winning bidders identified themselves as very small businesses won 56 of the 76 licenses. One of the winning bidders that identified themselves as a small business won 5 of the 76 licenses won.

25. *700 MHz Guard Band Licenses.* In the *700 MHz Guard Band Order*, the Commission 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.⁷⁹ 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.⁸⁰ 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.⁸¹ SBA approval of these definitions is not required.⁸² In 2000, the Commission conducted an auction of 52 Major Economic Area (“MEA”) licenses.⁸³ 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.⁸⁴

26. *Upper 700 MHz Band Licenses.* In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.⁸⁵ 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.⁸⁶ The auction concluded on March 18, 2008, with 3 winning bidders

⁷⁸ See “Auction of Phase II 220 MHz Service Spectrum Licenses Closes, Winning Bidders Announced for Auction 72, Down Payments due July 18, 2007, FCC Forms 601 and 602 due July 18, 2007, Final Payments due August 1, 2007, Ten-Day Petition to Deny Period, *Public Notice*, 22 FCC Rcd 11573 (2007).

⁷⁹ 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).

⁸⁰ *Id.* at 5343 ¶ 108.

⁸¹ *Id.*

⁸² *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).

⁸³ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

⁸⁴ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

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

⁸⁶ See Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (WTB 2008).

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.

27. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.⁸⁷ The Commission 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.⁸⁸ 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.⁸⁹ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“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.⁹⁰ The SBA approved these small size standards.⁹¹ 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)) was conducted in 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won licenses.⁹² A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses.⁹³ Seventeen winning bidders claimed small or very small business status, and nine winning bidders claimed entrepreneur status.⁹⁴ In 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band. All three winning bidders claimed small business status.

28. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.⁹⁵ An auction of A, B and E block 700 MHz licenses was held in 2008.⁹⁶ Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years). Thirty three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

29. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.⁹⁷ There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA’s small business size standard for the category of Wireless Telecommunications Carriers (except Satellite).

⁸⁷ See Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59), *Report and Order*, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

⁸⁸ See *id.*, 17 FCC Rcd at 1087–88 ¶ 172.

⁸⁹ See *id.*

⁹⁰ See *id.*, 17 FCC Rcd at 1088 ¶ 173.

⁹¹ See *Alvarez Letter 1998*.

⁹² Lower 700 MHz Band Auction Closes, *Public Notice*, 17 FCC Rcd 17272 (2002).

⁹³ Lower 700 MHz Band Auction Closes, *Public Notice*, 18 FCC Rcd 11873 (2003).

⁹⁴ See *id.*

⁹⁵ 700 MHz Second Report and Order, *Second Report and Order*, 22 FCC Rcd 15289, 15359 n.434 (2007).

⁹⁶ Auction of 700 MHz Band Licenses Closes, *Public Notice*, 23 FCC Rcd 4572 (2008).

⁹⁷ This service is governed by Subpart I of Part 22 of the Commission’s Rules. See 47 C.F.R. §§ 22.1001-22.1037.

Under that standard.⁹⁸ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁹⁹ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁰⁰ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small.

30. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).¹⁰¹ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁰² According to *Trends in Telephone Service* data, 413 carriers reported that they were engaged in wireless telephony.¹⁰³ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.¹⁰⁴ Therefore, more than half of these entities can be considered small.

31. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules.¹⁰⁵ The second has a size standard of \$25 million or less in annual receipts.¹⁰⁶

32. 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.”¹⁰⁷ Census Bureau data for 2007 show that 512 Satellite Telecommunications firms that operated for that entire year.¹⁰⁸ Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to \$24,999,999.¹⁰⁹ Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

33. The second category, *i.e.* “All Other Telecommunications,” comprises “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments

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

⁹⁹ *Id.*

¹⁰⁰ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

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

¹⁰² *Id.*

¹⁰³ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

¹⁰⁴ *Id.*

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

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

¹⁰⁷ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications.”

¹⁰⁸ See http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

¹⁰⁹ http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

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. Establishments providing Internet services or Voice over Internet Protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”¹¹⁰ For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year.¹¹¹ Of this total, 2,346 firms had annual receipts of under \$25 million and 37 firms had annual receipts of \$25 million to \$49,999,999.¹¹² Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

a. Equipment Manufacturers

34. *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.” 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. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. Of this total, 784 had less than 500 employees and 155 had more than 100 employees.¹¹³ Thus, under this size standard, the majority of firms can be considered small.

35. *Semiconductor and Related Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media. The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media.”¹¹⁴ According to data from the 2007 U.S. Census, in 2007, there were 954 establishments engaged in this business. Of these, 545 had from 1 to 19 employees; 219 had from 20 to 99 employees; and 190 had 100 or more employees.¹¹⁵ Based on this data, the Commission concludes that the majority of the businesses engaged in this industry are small.

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

36. The Notice of Proposed Rulemaking does not propose any recordkeeping or reporting requirements.

¹¹⁰ <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2007%20NAICS%20Search>.

¹¹¹ U.S. Census, http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

¹¹² http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=900&-ds_name=EC0751SSSZ4&-_lang=en.

¹¹³ The NAICS Code for this service 334220. See 13 C.F.R 121/201. See also http://factfinder.census.gov/servlet/IBQTable?_bm=y&-ds_name=EC0700A1&-geo_id=&-_skip=300&-ds_name=EC0731SG2&-_lang=en.

¹¹⁴ U.S. Census Bureau, 2007 Economic Census, Industry Series: Manufacturing, “Semiconductor and Related Device Manufacturing,” NAICS code 334413.

¹¹⁵ http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-_skip=300&-ds_name=EC0731I1&-_lang=en.

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

37. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed 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) and exemption from coverage of the rule, or any part thereof, for small entities.”¹¹⁶

38. The NPRM proposes sunseting the NSI rule after a six-month transition period, as well as seeking comment on a variety of possible alternatives to addressing the issue of fraudulent calls from NSI handsets. Because sunseting the NSI rule will remove certain call-forwarding obligations on small entities, it is likely the method that would impose the least costs on these small entities.

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

39. <None.>

¹¹⁶ 5 U.S.C. §§ 603(c)(1)-(c)(4).