

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

In the Matter of	)	
	)	
Nationwide Number Portability	)	WC Docket No. 17-244
	)	
Numbering Policies for Modern Communications	)	WC Docket No. 13-97

**NOTICE OF PROPOSED RULEMAKING AND NOTICE OF INQUIRY**

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By the Commission: Chairman Pai and Commissioners Clyburn, O’Rielly and Carr issuing separate statements.

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## I. INTRODUCTION

1. Telephone numbers continue to serve as important identifiers for reaching family and friends, businesses, and other key contacts. Therefore, many individuals and businesses value their telephone numbers and the ability to keep them – whether changing service providers, moving from one neighborhood to another, or relocating across the country.

2. Currently, consumers and businesses can keep their telephone numbers when changing service providers – wireline-to-wireline, wireless-to-wireless, and wireline-to-wireless and the reverse – when they move *locally*. This *local* number portability (LNP) benefits consumers and promotes competition.<sup>1</sup> But consumers cannot uniformly keep their traditional wireline numbers or their mobile numbers when they move long distance.<sup>2</sup> The ability to keep your telephone number when switching your wireline or wireless service provider may depend on whether the service provider to whom you want to switch is a nationwide service provider. This limitation not only confuses and inconveniences consumers, it harms the ability of small or regional carriers to compete, undermining a core principle of number portability – competition.

3. In this Notice of Proposed Rulemaking (NPRM) and Notice of Inquiry (NOI), the Commission seeks comment on how best to move toward complete nationwide number portability to promote competition between all service providers, regardless of size or type of service (wireline or wireless). We also explore how technical aspects of our current LNP and dialing parity rules hinder the efficient routing of calls throughout the network, causing inefficiencies and delays.

## II. BACKGROUND

### A. Overview

4. The Commission has plenary authority over numbering matters. Section 251(e) of the Act of 1934, as amended (the Act) gives the Commission exclusive jurisdiction over the North American Numbering Plan (NANP) and related telephone numbering issues in the United States.<sup>3</sup> Section 251(b)(2) of the Act requires local exchange carriers (LECs) to “provide, to the extent technically feasible, number

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<sup>1</sup> See, e.g., *Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8357, para. 7 (1996) (*LNP Implementation Order*); *Implementation of the Local Competition Provisions of the Telecommunications Act, et al.*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392 (1996) (*Local Competition Second Report and Order*); *Telephone Number Portability—Carrier Requests for Clarification of Wireless-Wireless Porting Issues*, 18 FCC Rcd 20971 (2003) (*2003 Wireless Porting Order*); *Telephone Number Requirements for IP-Enabled Services Providers et al.*, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, 22 FCC Rcd 19531 (2007), *aff’d sub nom. National Telecomms. Cooperative Ass’n v. FCC*, 563 F.3d 536 (D.C. Cir. 2009) (*VoIP LNP*); *Telephone Number Portability*, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 23697 (2003) (*Intermodal LPN Order*).

<sup>2</sup> Compare 47 CFR § 52.21(k) (definition of *location* portability) and 47 CFR § 52.21(m) (definition of *number* portability) with *Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8447, para. 181 (“We decline at this time to require LECs to provide either service or location portability. . . . The 1996 Act’s requirement to provide number portability is limited to situations when users remain ‘at the same location,’ and ‘switch[ ] from one telecommunications carrier to another,’ and thus does not include service and location portability.” *Id.* (citing 47 U.S.C. § 153(30)). See also, e.g., N. Am. Numbering Council, Local Number Portability Admin. Selection Working Group Report, para. 7.3 (1996) (Noting the LNP wireline “assumption” that “If location portability is ordered by a state commission in the context of Phase I implementation of LRN, location portability is technically limited to rate center/rate district boundaries of the incumbent LEC due to rating/routing concerns.”), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-341177A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-341177A1.pdf).

<sup>3</sup> 47 U.S.C. § 251(e).

portability in accordance with requirements prescribed by the Commission.”<sup>4</sup> Together, these portions of the Act give the Commission the authority not only to require “number portability,” which allows users to retain telephone numbers *at the same location*,<sup>5</sup> but also to encourage “location portability,” allowing consumers to retain their telephone numbers when *changing their location*.<sup>6</sup> Ensuring that telephone numbers do not act as barriers to competition between carriers of various sizes and technologies is well within our statutory authority.<sup>7</sup> This type of unlimited number portability – allowing consumers to port any telephone number anywhere – has been referred to as “nationwide number portability” (NNP) or “non-geographic number portability” (NGNP).

5. A wireless user may currently have more opportunities than a wireline user when it comes to number porting. But even among wireless competitors, smaller rural and regional carriers are at a disadvantage versus their nationwide competitors. Wireless-to-wireless porting is only possible if the ported-to wireless carrier has a facilities-based presence in the porting customer’s original geographic location, placing smaller, non-nationwide carriers at a disadvantage.<sup>8</sup> Similarly, existing technical strictures prevent customers from porting their numbers from wireless-to-wireline services, should a consumer want to do so, unless the ported-to wireline service provider happens to have a presence in the same rate center as the customer’s number. This requirement naturally limits the ability of LECs to port-in numbers from wireless services, and will affect any toll or long-distance charges or other distance-sensitive costs for transiting the Public Switched Telephone Network (PSTN) portion of the call path,<sup>9</sup> placing these local wireline carriers at a disadvantage when it comes to competing for consumers.

6. An interconnected Voice over Internet Protocol (VoIP) user is likewise limited in terms of portability. While there is no technologically-inherent restriction on location of use if connectivity is supported via the internet (or via a dedicated network that can connect to it), calls to and from the PSTN are routed through the rate center where the telephone number is assigned as a local number. This means that the rate center “location” of the number determines the location and thus the available LECs to which

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<sup>4</sup> 47 U.S.C. § 251(b)(2).

<sup>5</sup> 47 U.S.C. § 153(37) (emphasis added); 47 CFR § 52.21(k); *LNP Implementation Order*, 11 FCC Rcd at 8357, para. 7.

<sup>6</sup> *LNP Implementation Order*, 11 FCC Rcd at 8443, para. 174.

<sup>7</sup> The Commission has created rules for local number portability and rules requiring that local number portability be available for wireless and interconnected Voice over Internet Protocol (VoIP) customers. See *Telephone Number Portability*, Second Report and Order, 12 FCC Rcd 12281, 12283, para. 3 (1997) (*Second Number Portability Order*); N. Am. Numbering Council – LNP Architecture Task Force, Architecture & Administrative Plan for Local Number Portability at 6 (rel. Apr. 23, 1997) (NANC Architecture Report), <https://www.fcc.gov/document/north-american-numbering-council-architecture-administrative-plan-local-number-portability>. A “rate center” is a geographic area that is used to determine whether a call is local or toll. See *FCC Clears Way for Local Number Portability Between Wireline and Wireless Carriers*, CC Docket No. 95-116, News Release (rel. Nov. 10, 2003); see also *LNP Implementation Order*, 11 FCC Rcd at 8335, 8431-8433, paras. 4, 152-154; *2003 Wireless Porting Order*, 18 FCC Rcd at 20972, para. 2.

<sup>8</sup> See Letter from Steven K. Berry, President & CEO, Competitive Carriers Association, and Meredith Atwell Baker, President and CEO, CTIA—The Wireless Association, to Tom Wheeler, Chairman, FCC, at 3 (Sept. 25, 2015) (2015 CCA/CTIA Letter).

<sup>9</sup> See *Intermodal LPN Order*, 18 FCC Rcd at 23706, para. 22 (2003) (wireless carriers must port numbers to wireline carriers within a number’s originating rate center); *VoIP LNP*, 22 FCC Rcd at 19535, 19540, 19549-50, paras. 8, 16, 34-35 & n.114 (2007) (reaffirming requirement that a wireless number may be ported to a wireline carrier within the number’s originating rate center; extending LNP obligations to interconnected VoIP providers and prohibiting porting of an interconnected VoIP number to a wireline carrier in a different rate center).

a customer can port the number.<sup>10</sup> This reduced flexibility and choice also disadvantages LEC over providers of other telephony services.

7. Many consumers are thus still limited to *local* number portability, and interest in NNP remains high.<sup>11</sup> Government and private stakeholders have explored possibilities for implementing NNP in various forums. In July 2015, the U.S. House of Representatives Committee on Energy and Commerce (the Committee) requested that the Commission expeditiously support nationwide number portability, noting that “[c]onsumers overwhelmingly prefer to keep their numbers when they switch carriers.”<sup>12</sup> The Committee further indicated that the distinction within the number portability rules places non-nationwide providers at a competitive disadvantage and could result in consumer confusion when attempting to switch providers.<sup>13</sup>

8. The Competitive Carriers Association (CCA) subsequently asserted that “CCA’s rural and regional members have experienced problems with porting-in wireless numbers from disparate parts of the country.”<sup>14</sup> CCA further asserts that, as a result, non-nationwide carriers are placed at a competitive disadvantage compared to their nationwide counterparts who are able to port-in numbers regardless of location.<sup>15</sup> CCA expressed that number portability “helps to expand competition by allowing consumers to choose carriers that offer lower prices and innovative product and service offerings, and these public interest benefits are diminished when non-nationwide carriers do not have the same capability as nationwide carriers.”<sup>16</sup>

9. On May 16, 2016, the North American Numbering Council (NANC)<sup>17</sup> issued a report on NNP.<sup>18</sup> The NANC Report recommended further inquiry into several issues, including potential impacts

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<sup>10</sup> *Id.*

<sup>11</sup> See e.g., Comcast Comments, WC Docket No. 13-97, et al. at 13-14 (filed July 19, 2013) (stating, “some residential consumers moving to a new community may wish to exchange their existing number for one with an area code associated with that location”); see also XO Communications Reply, WC Docket No. 13-97, et al. at 14 (filed Aug. 19, 2013); Competitive Carriers Association Comments, WC Docket No. 16-70, at 2-4 (filed May 12, 2016); Competitive Carriers Association Comments, WT Docket No. 16-137, at 34-35 (filed May 31, 2016).

<sup>12</sup> Letter from Fred Upton, Chairman, H. Comm. on Energy & Commerce, to Tom Wheeler, Chairman, FCC at 1 (July 9, 2015).

<sup>13</sup> *Id.*

<sup>14</sup> Letter from Rebecca Murphy Thompson, General Counsel, CCA, to Marlene H. Dortch, Secretary, FCC at 1 (July 14, 2015) (2015 CCA Letter). See also Competitive Carriers Association Comments, WC Docket No. 07-149, WC Docket No. 09-109, CC Docket No. 95-116 (filed May 21, 2015) at 2 (“CCA again requests that the Commission direct the North American Numbering Council (‘NANC’) and the new Local Number Portability Administrator (‘LNPA’) to help facilitate immediate, seamless wireless-to-wireless number porting nationwide. Competitive carriers continue to be disadvantaged by unnecessary geographic constraints on number portability....”).

<sup>15</sup> 2015 CCA Letter at 1.

<sup>16</sup> *Id.* at 1-2. In a subsequent joint letter, CCA and CTIA noted that “[m]any wireless consumers believe they can port their telephone numbers to any provider when they move to a new location. In reality, this can only occur if the new wireless provider has a facilities-based presence in the original LATA of the telephone number to be ported.” 2015 CCA/CTIA Letter at 3 (citing *Second Number Portability Order*, 12 FCC Rcd at 12324, para. 74 (second-to-last (“N-1”) carrier in call flow performs LNP query)); ATIS-0300065 Location Routing Number Assignment Practices (Sept. 5, 2014), <http://www.atis.org/inc/Docs/finaldocs/LRN-Assignment-Practices-Final-Documents-09-30-11.doc> (Location Routing Numbers (“LRNs”) formulated as telephone numbers and associated with specific geographic switches). CCA and CTIA note that as a result consumers are more likely able to port their number from one nationwide wireless carrier to another nationwide wireless carrier, than from a nationwide carrier to a smaller, regional (non-nationwide) carrier. 2015 CCA/CTIA Letter.

<sup>17</sup> The NANC is the Commission’s Federal Advisory Committee on numbering administration matters. It is comprised of state regulators, consumer groups, industry representatives, and other stakeholders interested in number administration.

to the life of the NANP, necessary edits to federal rules, and the role of LRNs in the future as carriers use both time division multiplexing- and VoIP-based interconnection.<sup>19</sup>

10. The Alliance for Technical Industry Solutions (ATIS)<sup>20</sup> approved a Technical Report on a Nationwide Number Portability Study on June 20, 2016.<sup>21</sup> The ATIS Report analyzes five potential solutions for achieving NNP: (1) nationwide implementation of LRNs; (2) non-Geographic LRNs (NGLRNs); (3) commercial agreements; (4) internet interconnection; and (5) iconectiv's GR-2982-CORE specification.<sup>22</sup> ATIS reported that the commercial agreement solution is the only one that can be supported today that has no porting impacts.<sup>23</sup>

11. On August 30, 2016, the NANC LNP Working Group issued a white paper on NGNP.<sup>24</sup> Among other things, the LNP Working Group concluded that regulatory changes made as a result of non-geographic number porting implementation should be technology and provider agnostic.<sup>25</sup> The Working Group reiterated that "any implementation of NGNP...will require collaboration and support by all parties involved" and that an industry move towards NGNP will require a mandate by the Commission.<sup>26</sup>

### **B. Background on Number Portability Mechanisms**

12. In the last few years, ATIS and the NANC have worked to develop approaches for implementing NNP and thereby, increase access to smaller, regional carriers and increase routing efficiency in the network. Because the changes required by some of these proposals could be hindered by legacy aspects of our telephone regulations, we propose to eliminate certain legacy aspects of our telephone regulations to promote NNP, such as existing N-1 and dialing parity requirements. This section provides a summary of existing number portability mechanisms as background to the proposals and questions in the NPRM and the NOI below.

13. *Current LNP Process.* In the current local number portability system, consumers may keep their telephone number when changing providers if they remain at the same location. Stated differently, consumers may be prevented, for technical reasons, from retaining their telephone number when switching providers if they move outside the original geographic area of their telephone number. This is true for both intramodal (e.g., wireline-to-wireline or wireless-to-wireless) and intermodal (e.g.,

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<sup>18</sup> N. Am. Numbering Council, Local Number Portability Admin. Selection Working Group Report, (May 16, 2016) (NANC Report), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-339428A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-339428A1.pdf).

<sup>19</sup> NANC Report at 2-13.

<sup>20</sup> The Alliance for Telecommunication Industry Solutions (ATIS) is a technical planning and standards organization that develops and promotes technical and operations standards for communications and related information technologies worldwide. "P-ANI Administration Guidelines," ATIS-030089, March 30, 2007 at 1.

<sup>21</sup> See generally Alliance for Telecomm. Indus. Sols., *ATIS Standard – ATIS-1000071, Technical Report on a Nationwide Number Portability Study, Technical Report* (2016) (ATIS Report), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-340865A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-340865A1.pdf).

<sup>22</sup> *Id.*

<sup>23</sup> *Id.* at 11-12, 40-41.

<sup>24</sup> See generally North American Numbering Council, Local Number Portability Administration Working Group, *White Paper on Non-Geographic Number Portability* (Aug. 30, 2016) (NGNP White Paper), available via [http://www.nanc-chair.org/docs/mtg\\_docs/Sep16\\_LNPA\\_WG\\_Report.docx](http://www.nanc-chair.org/docs/mtg_docs/Sep16_LNPA_WG_Report.docx) (the White Paper can be found embedded within its September 16, 2016 LNPA Working Group Report, under the heading "Nationwide Number Portability"). The NANC notes that NGNP and NNP "are considered to be two synonymous terms, but it has become the preference of the NANC Working Groups to use the term NNP." See NANC Report at 2, n.2.

<sup>25</sup> NGNP White Paper at 5.

<sup>26</sup> *Id.* at 11.

wireline-to-wireless) ports. In either context, a customer who changes carriers, or who moves within the same general geographic area, can retain a telephone number through the use of a LRN: a 10-digit number-like number that shares a switch with the customer's location.<sup>27</sup> The LRN is essentially a telephone number that designates the switch that serves the customer's new location. When someone calls that customer's ported number, one of the carriers routing the call will query the Number Portability Administration Center/Service Management System (NPAC/SMS),<sup>28</sup> which provides the routing carrier the appropriate LRN.<sup>29</sup> The call is then routed to the appropriate switch, which contains the information necessary to route the call to the correct customer.<sup>30</sup> The N-1 query requirement, described below, is built into this process; NNP solutions that alter the process would likely require altering or rescinding the N-1 requirement, lest it result in persistent routing inefficiencies. Dialing parity requirements are also implicated in the routing of calls to ported numbers, and their amendment may similarly facilitate NNP, by allowing greater choice on the part of local carriers to decide how calls are routed.

14. *N-1 Requirement.* The N-1 query requirement mandates that the carrier immediately preceding the terminating carrier (the N-1 carrier) be responsible for ensuring that the number portability database is queried.<sup>31</sup> For instance, if a carrier is asked to originate a telephone call to a number that can be ported, it first determines whether or not the number requires routing to an interexchange carrier. If so, it routes the call to the interexchange carrier, which then queries the NPAC, sending it the digits of the dialed telephone number. The database answers the query by providing an LRN. The interexchange provider then routes the call to the terminating carrier's switch, which routes the call to the intended recipient.<sup>32</sup> In this case, the interexchange carrier is the N-1 carrier, and thus performs the number portability database query. If, on the other hand, the originating carrier finds that the dialed number does not require handoff to an interexchange carrier, it performs the query itself, receives the LRN, and then routes the call to the appropriate terminating carrier's switch.<sup>33</sup> In that case, the originating carrier itself is the N-1 carrier, since only two carriers are involved.

15. The N-1 requirement was recommended by the NANC and adopted by the Commission in the early stages of implementing LNP because it ensured that: carriers would know when a database had been queried; the cost of performing queries would be distributed between interexchange and originating providers; and, moreover, that routing performance would not be degraded by, for instance, having a call routed to a supposed terminating carrier, only for that carrier to perform a query and discover that the number had been ported and required further routing.<sup>34</sup> Furthermore, industry stakeholders at the time preferred the N-1 query requirement to having the originating service provider perform the query, since doing so would require all carriers across the country to implement number

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<sup>27</sup> ATIS Report at 8-11.

<sup>28</sup> The NPAC/SMS consists of hardware and software platforms that host a national information database and serves as the central coordination point of LNP activity. In this NPRM/NOI, we refer to this system simply as the NPAC.

<sup>29</sup> ATIS Report at 8-11.

<sup>30</sup> *Id.*

<sup>31</sup> Paragraph 73 of the *Second Number Portability Order* is included in the NANC's recommendations for LNP architecture and administration, and thus incorporated by reference into our Rules. See 47 CFR § 52.26(a); see also *Second Number Portability Order*, 12 FCC Rcd at 12323, para. 73.

<sup>32</sup> See, e.g., ATIS Report at 9-10; NANC Architecture Plan at A-1.

<sup>33</sup> See, e.g., ATIS Report at 10-11; NANC Architecture Plan at A-2.

<sup>34</sup> See *Second Number Portability Order*, 12 FCC Rcd at 12323-24, paras. 73-74; *Telephone Number Portability*, First Memorandum Opinion and Order on Reconsideration, 12 FCC Rcd 7236, 7306-08, paras. 124-126 (Mar. 11, 1997).



portability simultaneously for it to work.<sup>35</sup> However, given changing market conditions, and even more so with NNP, this system may need to be altered. As explained by ATIS, “[i]n an NNP environment, a call could look like it is interLATA but actually be intraLATA. In this case it could be more efficient for the originating carrier to know this, but they may not be able to do this with the N-1 requirement.”<sup>36</sup> Thus, changes to the number portability system can affect the ability for a given carrier to know whether or not it is in fact the N-1 carrier, and the requirement would actively introduce inefficiencies into the routing system, in some cases resulting in calls unnecessarily being rerouted multiple times, potentially increasing traffic and costs for carriers, and delays for consumers.

16. *Dialing Parity.* Dialing parity provisions were originally intended to ensure that incumbent LECs provided the same access to stand-alone long distance service providers as they did to their own or their affiliates’ long distance offerings.<sup>37</sup> This nondiscriminatory access to interexchange carriers is part of the set of equal access requirements in the Act that have been adopted from the 1982 *Modification of Final Judgment* (MFJ) in the federal antitrust case against AT&T, which imposed these requirements on the Bell Operating Companies (BOCs).<sup>38</sup> The Telecommunications Act of 1996 (1996 Act) incorporated the MFJ’s equal access requirements for these former BOCs into the Communications Act via section 251(g). The 1996 Act also created more specific, affirmative equal access requirements in section 251(b) that applied to *all* local exchange carriers.<sup>39</sup> The provisions in this section substantially resemble the requirements in the MFJ, with the key differences that the requirements in the MFJ cover information services as well as telephone toll service, and section 251(b)(3) covers local exchange and telephone toll service.<sup>40</sup>

17. We seek, through this NPRM and NOI, to continue the Commission’s efforts to align our regulations with the trend toward all-distance voice services.<sup>41</sup> Moreover, we recognize, the decline of the stand-alone long distance market has limited the relevance and utility of certain equal access obligations for competitive providers and their customers.<sup>42</sup> In the *2015 USTelecom Forbearance Order*, the Commission forbore from the “application to incumbent LECs of all remaining equal access and dialing parity requirements for interexchange services, including those under section 251(g) and section 251(b)(3) of the Act.”<sup>43</sup> However, the Commission adopted a “grandfathering” condition allowing incumbent LEC customers who were presubscribed to third-party long distance services as of the date of

<sup>35</sup> See *Telephone Number Portability*, Notice of Proposed Rulemaking, 10 FCC Rcd 12350, 12365-66, paras. 43-47, (1995); Cincinnati Bell Comment, CC Docket No. 95-116, at 8 (Sep. 12, 1995); NCTA Comment, CC Docket No. 95-116, at 10 (Sep. 12, 1995).

<sup>36</sup> The N-1 requirement requires the second-to-last carrier to perform the number portability database query; where an interexchange carrier is involved, this prevents the originating carrier from performing the query. See *supra* para. 14; ATIS Report at 23, 8.1.2.

<sup>37</sup> See *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Obsolete ILEC Legacy Regulations That Inhibit Deployment of Next-Generation Networks et al.*, Memorandum Opinion and Order, 31 FCC Rcd 6157, 6183-84, para. 47 (2015) (*2015 USTelecom Forbearance Order*).

<sup>38</sup> See *United States v. Western Elec. Co.*, No. 82-0192 at 3-4 (D.D.C. Aug. 24, 1982) (1982 *Modification of Final Judgment*, or MFJ). See also generally *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131 (D.D.C. 1982).

<sup>39</sup> 47 U.S.C. § 251(b).

<sup>40</sup> *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6184, para. 48.

<sup>41</sup> See, e.g., *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6185-86, paras. 49-50; *Connect America Fund*, Order, 28 FCC Rcd 4242, 4245, para. 13 (2013); *Wireline Competition Bureau Seeks Comment on Proposed Urban Rates Survey et al.*, Public Notice, 27 FCC Rcd 8332, 8334, paras. 13-14 (2012); *High-Cost Universal Service Support*, Further Notice of Proposed Rulemaking, 24 FCC Rcd 14858, 14866, para. 19 (2009).

<sup>42</sup> *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6184-85, para. 49.

<sup>43</sup> *Id.* at 63182, para. 46, 6184-87, paras. 49-51.

the *2015 USTelecom Forbearance Order* to retain certain equal access and dialing parity service.<sup>44</sup> Thus, unless the grandfathering condition is applicable, toll dialing parity requirements, preserved by section 251(g), and the long distance (toll) dialing parity requirements of section 251(b)(3), no longer apply to incumbent LEC provision of interexchange access services.

18. Since the *2015 US Telecom Forbearance Order*, only limited toll dialing parity requirements remain. Competitive local exchange carriers (competitive LECs) must still abide by the long-distance dialing parity requirements of section 251(b)(3).<sup>45</sup> The ATIS Report on NNP suggests that interLATA call processing requirements, such as the interexchange dialing parity requirements, may hinder certain proposals for NNP.<sup>46</sup> Currently, an originating carrier determines whether or not to hand a call to an interexchange carrier based upon the dialed number. However, if numbers can be ported on a nationwide basis, the number might actually be in the same LATA, meaning that transfer to an interexchange carrier of the customer's choosing would result in persistently inefficient routing, with potentially concomitant delays and costs. Eliminating the remaining dialing parity requirements may allow originating carriers to avoid these inefficiencies by increasing their choices.<sup>47</sup> For instance, a carrier being asked by a customer to originate a call to a non-geographic telephone number might benefit from being able to handle the call as it prefers, instead of abiding by the constraints of the dialing parity requirements.<sup>48</sup>

### III. NOTICE OF PROPOSED RULEMAKING

19. We believe that NNP will level the playing field for many rural and regional carriers, who are disadvantaged by the difficulty or outright inability of consumers to port in to their networks. Accordingly, we believe it is important to begin forging the way towards NNP. Because we understand that achieving this goal without incurring significant practical harms or prohibitive costs will require extensive work, collaboration, and support by all parties involved, we propose taking an incremental approach toward achieving NNP. As a first step to accommodate the architectures of NNP proposals and to reflect the evolving marketplace, we propose to remove the N-1 query requirement. Further, based on the ATIS Report and the marketplace findings in the *2015 USTelecom Forbearance Order*, we propose to eliminate remaining interexchange dialing parity requirements. Removing these regulations will thus help ensure an efficient network that provides consumers maximum flexibility in their communications choices and a competitive landscape for small and rural providers.

#### A. Proposed Elimination of the N-1 Query Requirement

20. We seek comment on whether the N-1 query requirement impedes plans for NNP such as the non-geographic LNP proposal. As the ATIS Report notes, in an NNP environment, an originating carrier could not determine, without performing a query, whether a dialed number required interexchange routing or not. This could lead to a number of inefficiencies, such as a scenario in which a number is ported from a distant location to the same LATA as an originating caller. In such a scenario, the originating carrier, believing the call to be long-distance, would route the call to an interexchange carrier, only for the interexchange carrier, upon conducting the query, to have to route the ported number back to the originating carrier's LATA.<sup>49</sup>

21. Furthermore, the motivating concerns that caused the NANC to recommend and the Commission to implement the N-1 requirement no longer seem to apply. When it was first adopted, the

<sup>44</sup> *Id.* at 6187-89, paras. 52-54.

<sup>45</sup> 47 CFR §§ 51.209, 51.213, 51.215 (toll dialing parity requirements).

<sup>46</sup> *ATIS Report* at 22.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *See ATIS Report* at 23.



N-1 requirement was favored over requiring originating carriers to perform the database query because this latter solution would have required every local carrier across the country to adopt LNP simultaneously in a “flash-cut” manner for LNP to work, requiring more complicated coordination of the LNP rollout.<sup>50</sup> Moreover, in an environment of many competing interexchange carriers and restrictions on incumbent LECs from offering interexchange services, interexchange carriers “wanted to ensure that they were involved in this important aspect of call processing.”<sup>51</sup> Since LNP has by now been broadly and successfully adopted nationwide, and in light of the changed competitive landscape, we anticipate that these concerns are no longer relevant.

22. We therefore propose to eliminate the N-1 query requirement, and we seek comment on this proposal. What are the benefits and drawbacks of removing the requirement? Is eliminating the requirement necessary to, or will it facilitate, the implementation of non-geographic location routing numbers or other NNP proposals, as suggested by ATIS? Would removing the requirement interfere with any aspects of the current routing or number portability querying system, or any other aspect of the network? For example, by proposing to allow carriers flexibility in conducting NPAC queries, will there be coordination issues among carriers or calls that are processed without a query? What costs, if any, would be saved if we eliminated the N-1 query requirement? Did the N-1 requirement lead to network routing inefficiencies and will its elimination correct those inefficiencies? Alternatively, will rescinding the requirement add to the costs of originating carriers, terminating carriers, or other parties, either in terms of performing more queries, or in terms of requiring equipment upgrades? Are there transaction or other costs or harms associated with transitioning away from N-1 query? In the absence of the requirement, would costs of the system be allocated appropriately? Would there be any other benefits of eliminating the N-1 query requirement not predicated on a move to NNP? Interested stakeholders should address these questions.

23. The ATIS Report states that eliminating the N-1 query requirement does not require supplanting it with a new requirement that originating carriers query the NPAC.<sup>52</sup> According to the Report, “[a] carrier could choose to query all calls on their originating network and route calls to the NNP numbers accordingly, or they could choose to handle calls as they do today, i.e., if a call looks like it is interLATA, hand it off to the IXC and let the IXC query the call.”<sup>53</sup> As the ATIS Report notes, it is important to ensure the call is queried before it gets to the network that is assigned the central office (CO) code, but not necessarily that the N-1 methodology be used. We seek comment on this perspective. Are there any benefits to the Commission requiring particular parties to perform the query, or are existing technical and market mechanisms (such as agreements and signaling between providers indicating query status) sufficient to ensure that queries will be performed efficiently and by the parties best placed to do so?

24. We also seek comment on whether anticipated changes in routing and queries might have other effects upon the public. For instance, how would these changes interact with public safety, including the provision of emergency services, such as 911 or Next Generation 911 calls? Will eliminating the N-1 query requirement lead to any changes in the handling of emergency calls, including their routing or the provision of necessary caller information?

#### **B. Proposed Elimination of Remaining Interexchange Dialing Parity Requirements**

25. In the *2015 USTelecom Forbearance Order*, the Commission forbore from the dialing parity provisions of sections 251(b)(3) and 251(g) only insofar as they applied to *incumbent* LECs in their

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<sup>50</sup> See *supra* note 35.

<sup>51</sup> See ATIS Report at 23.

<sup>52</sup> See *id.* at 23, 8.1.2 (N-1 Query Requirement).

<sup>53</sup> *Id.*

provision of interexchange access services.<sup>54</sup> In this section, we (1) propose to extend that forbearance to competitive LECs, (2) seek comment on extending forbearance to “grandfathered” customers who still maintain accounts with stand-alone long-distance providers, and (3) propose to eliminate the Commission’s rules that mandate interexchange dialing parity and other requirements associated with it.<sup>55</sup> We anticipate that these changes will remove barriers to NNP and better reflect the competitive realities of today’s marketplace.

### 1. Proposed Forbearance from Interexchange Dialing Parity Requirements

26. We propose to forbear from the dialing parity requirements of section 251(b)(3) as they apply to interexchange services. The *2015 USTelecom Forbearance Order* removed these constraints from incumbent LECs with regard to interexchange access services, and we propose to extend that same forbearance to competitive LECs. Section 10 of the Act states that the Commission shall forbear from applying any regulation or provision of the Act if it determines that: (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory; (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest.<sup>56</sup> We seek comment on whether forbearing from the dialing parity requirements of section 251(b)(3) as they apply to interexchange services would meet the criteria of section 10.

27. We believe that the remaining interexchange dialing parity requirements for competitive LECs are no longer necessary in today’s all-distance market to ensure that the charges and practices of competitive LECs are just and reasonable and are not unjustly or unreasonably discriminatory, and are no longer necessary for the protection of consumers. We further believe that the rationales behind the forbearance from the interexchange dialing parity requirements in the *2015 USTelecom Forbearance Order*<sup>57</sup> apply similarly to both incumbent and competitive LECs. Do commenters agree? For instance, are commenters aware of substantial complaints stemming from our forbearance from the interexchange dialing parity requirements in the *2015 USTelecom Forbearance Order*? As described in the *2015 USTelecom Forbearance Order*, wireline customers today have more choices than they did in 1982 or 1996, including interconnected VoIP services.<sup>58</sup> Similarly, stand-alone long-distance has not been critical to competition for over a decade, with declining demand for it from both mass-market and business customers.<sup>59</sup> Does the decrease in demand for stand-alone interexchange services reduce the likelihood that LECs will have unjust or unreasonable charges, practices, or classifications, and does it suggest that consumers no longer require protection from such practices? Does the increase in consumer choice obviate the need for these protections?

28. We also seek comment on the extent to which the interexchange dialing parity provisions affect any competitive LECs in practice. Do these provisions have substantial effects upon the costs, practices, and behavior of LECs currently? Are there any effects upon competitive LECs that significantly affect the market for local service as a whole? For example, given that competitive LECs

<sup>54</sup> *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6182, para. 46 & n.136.

<sup>55</sup> We do not propose here to forbear from other requirements of section 251, such as requirements for interconnection; resale; number portability; access to rights of way; reciprocal compensation; or nondiscriminatory access to telephone numbers, operator services, directory assistance services, directory listings, with no unreasonable dialing delays.

<sup>56</sup> 47 U.S.C. §160(a).

<sup>57</sup> *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6184-85, para. 49.

<sup>58</sup> *Id.* at 6184-85, para. 49.

<sup>59</sup> *Id.*

serve a relatively small percentage of residential wireline voice accounts,<sup>60</sup> do these provisions help a significant number of consumers or competitors?

29. Forbearance from the interexchange dialing parity requirements would also appear to be in the public interest. ATIS notes that an NNP regime, with all of the benefits to competition and consumers that come with it, would be facilitated by the elimination of interLATA call processing requirements.<sup>61</sup> The ATIS Report notes that carriers' ability to efficiently route calls to non-geographic LRNs could be hindered by the need to refer calls that look like interexchange calls to a third-party carrier, when the call would more efficiently have been routed to a non-geographic transport provider or a non-geographic gateway.<sup>62</sup> It is our understanding that forbearing from interexchange dialing parity would enable originating carriers to better choose how to route their calls, preventing inefficient network routing that might otherwise result from various NNP proposals. Do commenters agree? Can customers' pre-subscribed interexchange carrier choices accommodate the proposed changes without a loss of efficiency or undue cost? Are there other effects upon the public interest that might result from our proposed forbearance from the interexchange dialing parity requirements for competitive LECs? For instance, will there be any effects upon 911, Next Generation 911, or other aspects of emergency calling?

30. Furthermore, section 10(b) requires that the Commission account for the effects of forbearance on ensuring a competitive marketplace in making its public interest determination.<sup>63</sup> Since the implementation of the *2015 USTelecom Forbearance Order*, incumbent LECs have not had to comply with the interexchange dialing parity requirements of sections 251(b)(3) and 251(g). Will extending forbearance from those requirements to competitive LECs therefore ensure a level playing field between incumbent and competitive LECs? Will forbearance from these requirements help ensure a level and competitive playing field for small, rural, and regional carriers with respect to number portability? Will granting LECs more flexibility in choosing how calls are routed improve their competitive ability and offer consumers access to greater number portability? How else will the competitive landscape be affected by this proposed forbearance?

31. Given the decreased need for these mandates, combined with the likelihood that they will impede the implementation of NNP, we propose to use our forbearance authority to eliminate remaining interexchange dialing parity requirements, which apply to competitive LECs. We seek comment on this proposal. What costs, if any, do competitive LECs currently bear due to these requirements? Are other providers of local voice service, such as interconnected VoIP providers, affected by the application of these provisions, either to themselves or to competitors? Do other stakeholders benefit from relieving competitive LECs of these requirements, or are there other costs? Are there stakeholders whose position vis-à-vis competitive LECs today is significantly different from their position vis-à-vis incumbent LECs at the time of the *2015 USTelecom Forbearance Order*? Are there other aspects of section 251(b)(3), including nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, that are relevant to stakeholders today? We do not here propose to forbear from requirements for interconnection, resale, number portability, access to rights of way, or reciprocal compensation. Would any of these existing requirements be affected by our proposed forbearance? Would forbearance from any of these provisions assist in or hinder the implementation of NNP?

32. In the *2015 USTelecom Forbearance Order*, we forbore from the all remaining equal access requirements, including dialing parity, preserved in section 251(g), with the exception of the

<sup>60</sup> Indus. Analysis & Tech. Div., Fed. Comm'n Comm'n, *Voice Telephone Services: Status as of June 30, 2016* at 3, fig. 2 (2017), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344500A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344500A1.pdf).

<sup>61</sup> ATIS Report at 22.

<sup>62</sup> *Id.*

<sup>63</sup> 47 U.S.C. §160(b).

grandfathering condition.<sup>64</sup> We do not believe the dialing parity requirements preserved in section 251(g) apply to competitive LECs. We seek comment on whether there are any dialing parity requirements (applied via section 251(g)) from which we must forbear. If there are any remaining dialing parity requirements, we propose to forbear from those requirements and seek comment on such forbearance.

## **2. Seeking Comment on Extending Forbearance from Interexchange Dialing Parity Rules to Customers with Pre-Existing Stand-Alone Long-Distance Carriers**

33. We also seek comment on the continuing need to preserve the choices of existing customers who are presubscribed to stand-alone long-distance services, whose choices were grandfathered in the *2015 USTelecom Forbearance Order*.<sup>65</sup> Will LECs serving these customers be hindered from implementing NNP if these grandfathered customers continue to fall outside of the scope of forbearance? What costs would LECs or other carriers face in implementing NNP with or without the preservation of these choices? How many people still purchase long-distance calling from stand-alone long-distance carriers? Will these subscribers face any additional costs, burdens, or harms if we forbear from interexchange dialing parity rules? We seek estimates that quantify the cost of adjustment that such subscribers might face. Do interexchange carriers place material competitive pressure on LECs, and if so, what consumer benefit would be lost if we forbear as discussed herein? Are there additional benefits to retaining current grandfathered subscribers? In the *2015 USTelecom Forbearance Order*, we found that a significant number of retail customers still presubscribed to a stand-alone long-distance carrier, and that the public interest and protection of consumers required limiting the forbearance of equal access and dialing parity rules for these customers.<sup>66</sup> We seek comment on whether or not extending this forbearance would meet the criteria of section 10.<sup>67</sup>

34. We seek comment on whether the rationales for the grandfathering in the *2015 USTelecom Forbearance Order* still apply. Have conditions significantly changed since 2015? We seek comment on the present number of retail customers in the United States who presubscribe to stand-alone long-distance carriers. Would extending forbearance to these customers affect the costs they bear, considering the competition for all-distance packages? Are there any harms to customers affected by the *2015 USTelecom Forbearance Order* that suggest that we should retain the forbearance for grandfathered customers? Are the number of such customers, and benefit they receive from use of stand-alone long-distance carriers, significant enough to justify maintaining this grandfathered status when weighed against the burdens and costs it imposes on LECs? Would eliminating the grandfathering and extending this forbearance to them meet the criteria of section 10?

## **3. Proposing Elimination of Toll Dialing Parity Rules.**

35. Because we propose to forbear from the long-distance dialing parity provisions of section 251(b)(3), for both incumbent and competitive LECs, we propose to eliminate the rules implementing those requirements. We believe that sections 51.209 (“Toll dialing parity”), 51.213 (“Toll dialing parity implementation plans”), and 51.215 (“Dialing parity; Cost recovery” for toll dialing parity), serve only to implement the provisions of section 251(b)(3) relating to toll dialing parity, and thus should be eliminated if our proposed forbearances are to be effective in facilitating the development of NNP. We also propose modifying section 51.205 (“Dialing parity: general”) to omit references to toll dialing parity. We seek comment on this proposal. Do these rule provisions serve any purpose or implement any other portions of the Act other than section 251(b)(3)? Are there any other rules whose only purpose is to implement toll dialing parity requirements? Are there any interests beyond those articulated in the Act’s dialing

<sup>64</sup> *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6182-89, paras. 49-54.

<sup>65</sup> *Id.* at 6187-89, paras. 52-54.

<sup>66</sup> *Id.*

<sup>67</sup> See 47 U.S.C. §§ 160(a)(3), 160(b).

parity provisions that require these rules? How are these considerations affected by the retention or elimination of grandfathered customer relationships with presubscribed interexchange carriers? Will the elimination of these rules have any effect upon slamming? For example, can elimination of these rules reduce the mechanisms by which unscrupulous entities slam consumers? Conversely, are there useful consumer protections against slamming in these rules that are not effectively implemented elsewhere?

36. We seek comment on whether there are other rules that should be rescinded or modified to promote NNP. Should we consider forbearing from any other statutory provisions to allow the benefits of NNP to competition and consumers? We also seek comment on the interplay of the proposed forbearance and rule changes discussed in the NPRM with the technical solutions discussed below in the NOI. Specifically, to make NNP workable, should any forbearance and rule changes happen first, in advance of implementing any technical solutions, or should the Commission defer until any technical solutions are in place?

#### **IV. NOTICE OF INQUIRY**

37. While we believe it is important to move toward NNP, and invite comment above on steps that would lay the groundwork for doing so, we also seek input on how best to implement NNP, as well as its potential impacts on consumers and carriers. We therefore seek comment in this NOI on a variety of issues related to the deployment of NNP. We also note that while the focus of this NOI is to seek perspectives on the most feasible way to implement NNP, the goals of this proceeding could also be facilitated by larger changes to the current system of numbering administration. To that end, we also seek comment on how number administration might be improved to realize more efficient technical, operational, administrative, and legal processes.

##### **A. Scope of Inquiry and Initial Questions**

38. The ATIS Report and the NANC Report focus on NNP across wireline and wireless telecommunications services. Early efforts on this issue, however, focused merely on ensuring that wireless customers can retain their numbers when porting to other wireless carriers that lack a nationwide service area. We believe broader, intermodal NNP efforts will benefit consumers and competition, as well as potentially allow for useful reforms of the numbering system, and we explore means of achieving this goal below.

39. While our goal is to ensure broad, intermodal NNP, are there any benefits to a gradual implementation of NNP? Is such a partial deployment technically feasible? For instance, would it be possible for NNP to first be implemented for a particular subset of entities using numbering resources (such as wireless providers) before applying it to all entities? What advantages and disadvantages are there to a partial implementation of NNP?

##### **B. NNP Alternatives Identified in the ATIS Report**

40. We seek comment on four of the specific models of NNP outlined by ATIS in its report: (1) nationwide implementation of LRNs; (2) non-Geographic LRNs (NGLRNs); (3) commercial agreements; and (4) iconectiv's GR-2982-CORE specification. Are any of the models preferable to others in terms of feasibility, cost, and adaptability to changing markets and technologies? Have ATIS and the NANC adequately considered the potential costs, benefits, and barriers to implementation of each of these proposals? More generally, we seek evidence quantifying the benefit consumers would gain from being able to keep their number whenever they move outside a rate center and, alternatively, whether NNP would impose costs that outweigh those benefits as phone numbers increasingly become less informative about the dialed party's location. We also anticipate that NNP will have beneficial competitive effects, by allowing small, rural, and regional carriers to compete more effectively with larger, nationwide providers. We seek comment on this perspective. We also seek comment on other effects that these NNP proposals might have upon small carriers, including precisely what costs they

might impose upon them, and how.<sup>68</sup> We also seek comment on the impacts these various alternatives pose to routing calls to ported telephone numbers. To the extent that commenters believe that other NNP proposals, in addition to those outlined below, are promising solutions for NNP, we seek comment on those proposals and their potential implications.

41. *National LRN.* One conceptually simple way of implementing NNP would be to allow a ported number to be associated with any LRN.<sup>69</sup> Instead of limiting the geographic area within which the number can be ported, the system could associate it with an LRN associated with any location in the country.<sup>70</sup> Although this approach allows many existing systems and processes to be used, it also requires changes to NPAC rules, may complicate other routing and critical processes, and may require many carriers to upgrade or replace existing equipment.<sup>71</sup> The NGNP subcommittee found that such an approach would require the NPAC to relax existing LRN changes to allow any LRN to be added to any NPAC region.<sup>72</sup> In addition, it might require carriers to accept downloads from all NPAC regions, or keep port records in the region that is servicing the ported telephone number.<sup>73</sup>

42. National LRN may require carriers' existing switches to handle more numbering plan areas, since a given switch may have to accommodate telephone numbers being ported in from a wider range of original areas.<sup>74</sup> National LRN likely also requires changes to number portability rules.<sup>75</sup> We have proposed eliminating the N-1 query requirement and remaining interexchange dialing parity requirements in the NPRM above. Are additional changes necessary? We seek comment on these issues.

43. The national LRN proposal also implicates several non-routing issues. Industry processes, including the handling of call detail records, subscriber billing, and caller ID, will be impacted.<sup>76</sup> We also anticipate that tariffs, toll free database processing, enhanced 911 processes, and other systems that rely upon the relationship between a telephone number and its rate center/LATA will likely be affected. What systems will be affected, and to what extent? We seek comment from providers, end users, and other stakeholders on what dependencies exist that would require changes, as well as how changes brought about by national LRN can improve existing systems.

44. The ATIS Report anticipates that a porting-in service provider may not have a presence in the ported-out area.<sup>77</sup> While such situations currently exist and are generally handled by agreements between providers, many more such situations are likely to arise in a national LRN environment. What effects will this increase in demand have?

45. Local systems, including Local Service Management Systems (LSMS) and Service Order Administration (SOA), will also be affected by a national LRN system.<sup>78</sup> Current systems may rely in part upon an assumed structure whereby numbers are only ported within LATAs or NPAC regions; an

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<sup>68</sup> See Letter from Michael R. Romano, Senior Vice President, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-244 et al. (filed Oct. 16, 2017).

<sup>69</sup> ATIS Report at 11-12; NGNP White Paper at 13.

<sup>70</sup> ATIS Report at 11-12.

<sup>71</sup> *Id.*

<sup>72</sup> There are eight NPAC regions—one in Canada and seven in the United States.

<sup>73</sup> NGNP White Paper at 12.

<sup>74</sup> ATIS Report at 13.

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> ATIS Report at 14.



LRN can only be associated with a single NPAC region; or a ported telephone number record can only exist in one NPAC region.<sup>79</sup> We seek comment on what dependencies exist based on these assumptions, and how they might be resolved.

46. What is necessary to ensure that a national LRN system is compatible with the variation in dialing plans across the country? Different customers have different requirements when dialing—some need only dial seven digits of a local number; others must dial ten digits, others must dial 1 and ten digits. Is nationwide consistency required for national LRN compatibility?<sup>80</sup>

47. What effects will a national LRN system have on state regulators and systems? Porting numbers across state lines raises questions of existing state regulatory authority, and policy, including numbering resource management.<sup>81</sup> For example, would NNP affect state regulatory commission processes for reviewing tariffs, handling customer complaints, and ensuring public safety?<sup>82</sup> Provider responsibilities, obligations, and liabilities may also be implicated with interstate porting. We seek comment on what issues may arise and how they may be resolved. Can existing systems and agreements in bordering states serve as models for interstate cooperation?

48. How will consumer experiences be affected by a national LRN system? Would calls to numbers ported outside of a specific rate center have completion issues?<sup>83</sup> Consumers would also need to be informed about any effects upon rates and billing, if they subscribe to a geographically-based rate plan keyed to their rate center or LATA.<sup>84</sup> How might this be done? Some consumers use software that blocks calls which incur tolls, based upon the number's NPA-NXX. How will such programs be affected, and how can they be adapted, if necessary, to accommodate a national LRN system?<sup>85</sup> What effects will there be on caller ID?

49. Certain services are set up with restrictions on toll free calling based on the calling party's location.<sup>86</sup> A customer who ports his number to a new location might therefore have problems calling the same toll-free number.<sup>87</sup> We seek comment on the effects on toll free calling and potential implications of national LRN

50. *Non-Geographic LRN (NGLRN)*. Another mechanism to allow NNP is to designate a new area code unaffiliated with any particular location. This non-geographic area code would be the area code for NGLRNs.<sup>88</sup> Under an NGLRN system, ported numbers are associated with an NGLRN, instead of an LRN associated with the new location.<sup>89</sup> When a service provider queries the NPAC and receives an NGLRN, the call is then routed to a non-geographic gateway (NGGW) that resides on an IP network and routes the call appropriately.<sup>90</sup> This system can also support the creation of non-geographic telephone

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<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> NANC Report at 7-8.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> ATIS Report at 14.

<sup>87</sup> *Id.*

<sup>88</sup> ATIS Report at 21-26; NGNP White Paper at 14.

<sup>89</sup> ATIS Report at 21.

<sup>90</sup> *Id.* at 21-22.

numbers.<sup>91</sup> An NGLRN solution would support both wireline and wireless NNP.<sup>92</sup> It also allows many existing processes to continue working, but as noted by ATIS and the NGNP subcommittee, it requires the creation and setup of the non-geographic area code, NGLRNS, NGGWs, and likely changes to certain regulations, including the N-1 query requirement.<sup>93</sup>

51. The ATIS Report anticipates that aspects of interLATA call processing requirements, such as the dialing parity provisions, may interfere with an NGLRN system.<sup>94</sup> Likewise, the ATIS Report suggests that the N-1 query requirement could create problems. Are these concerns adequately dealt with by our proposed forbearance from these rules as discussed above?

52. To route calls to non-geographic telephone numbers, carriers will need to access relevant routing information and route to NGGWs.<sup>95</sup> Carriers that cannot route to NGGWs will need to route calls to a carrier that can, possibly requiring agreements with non-geographic transport providers.<sup>96</sup> What policies are necessary to ensure continued and reliable call routing in an NGLRN system? What criteria should be required for NGGWs? The ATIS Report recommends that an industry-led body create a certification process.<sup>97</sup> What bodies are best placed to conduct such certification, and what oversight should they have to ensure effectiveness, efficiency, transparency, and competition? We also seek comment on criteria for NGGWs, such as interconnection requirements. The ATIS Report recommends that carriers not be required to provide NGGW service or NNP service and that the only requirement be that carriers have the ability to route calls to NGLRNs.<sup>98</sup> Furthermore, ATIS suggests that carriers that do choose to provide NGGW do so “for their own customers only.”<sup>99</sup> We seek comment on this recommendation. Relatedly, the NGLRN system is designed such that carriers are not required to implement NNP.<sup>100</sup> What would be an appropriate timeline for NNP adoption, if any?

53. What characteristics should any non-geographic area code have? Should it be easily recognizable? Should various non-geographic area codes resemble each other for ease of recognition? How should the system address integration with other NANP countries? What impact would assignment and use of a non-geographic area code or codes within the NANP have on number exhaust in the United States and other NANP countries? We also seek comment on whether a single non-geographic area code will scale for the total set of NGLRNs. Will a single non-geographic area code be sufficient for the future?

54. The ATIS Report also raises several specific questions with regard to administration of non-geographic resources with an NGLRN system. The ATIS Report notes that certain current systems can be simplified with the adoption of non-geographic codes, such as combining the processes of number allocation and porting, or allowing distributed registries to handle processes currently managed by a single authoritative registry.<sup>101</sup> We seek comment on the potential for such reforms, and their integration with existing systems and authorities.

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<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> ATIS Report at 22-26; NGNP White Paper at 14.

<sup>94</sup> ATIS Report at 22.

<sup>95</sup> *Id.* at 23.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

<sup>100</sup> *Id.*

<sup>101</sup> *Id.* at 24.

55. With an NGLRN system, a call to 911 does not indicate its location by virtue of the calling telephone number, but rather from databases such as the Master Service Address Guide (MSAG) or the emergency service number that has been assigned to the cell site. Will systems that depend on pseudo-Automatic Number Identification (p-ANI), in use for wireless and VoIP calls, be appropriate for other non-geographic calls?

56. *Commercial Agreements.* One proposed solution for wireless carriers uses a third party entity that would install points of interconnection in various LATAs, using its own network as a way to route interLATA calls to ported numbers.<sup>102</sup> This proposal requires significant evaluation of LRN assignments in addition to the nature, categorization, and operation of the third party.<sup>103</sup> The NGNP subcommittee found that the commercial agreement solution was the only one that could be supported without significant changes or impacts to NPAC or service provider systems.<sup>104</sup>

57. In a commercial agreement solution, what entities would act as the third-party network, and what abilities and obligations would they need to have for effective and competitive operation? What would such a system require with respect to LRN assignments? Would such a proposal provide a pathway for wireline and intermodal NNP?

58. *GR-2982-CORE.* iconectiv's GR-2982-CORE specification details another NNP system called Portability Outside the Rate Center (PORC).<sup>105</sup> PORC calls for dividing the country into small, non-overlapping geographic blocks called Geographic Unit Building Blocks (GUBBs). Each GUBB is represented by a telephone number-like identifier, and acts as the vehicle for the recipient switch to identify the geographic location of the end user receiving the call.<sup>106</sup> A call to a ported telephone number will be routed using an LRN, as it is today, with the difference that the GUBB is used for carrier selection and rating purposes.<sup>107</sup> This includes changes in how the caller is billed, and may include the need to alter porting data and NPAC policies and procedures. GR-2982-CORE also recognizes that participating carriers must have compatible switches, depending upon their role in the call flow.<sup>108</sup> The NGNP subcommittee found that this proposal might require the NPAC to relax LRN changes, and may impact porting data if systems need to transmit additional routing data about the newly-created geographic building blocks of the system. The NGNP subcommittee also reports that changes to the porting records would impact all switches and number portability databases and many service order administrations and local service management systems across the industry.<sup>109</sup>

59. Do commenters agree with the NGNP subcommittee's assessments? Are there other issues or factors we should take into consideration in exploring the various approaches? How should the subcommittee's assessments affect any future action on these solutions?

60. The ATIS Report suggests that this solution may require the NPAC to relax existing LRN changes; that porting data may need to change to include GUBB information; and that these changes may impact all switches and number portability databases, as well as many SOAs and LSMS systems. What

<sup>102</sup> ATIS Report at 11-12; NGNP White Paper at 13.

<sup>103</sup> *Id.*

<sup>104</sup> NGNP White Paper at 12.

<sup>105</sup> See Telcordia, *Local Number Portability (LNP) Capability Specification: Location Portability, GR-2982-CORE* (1997), <http://telecom-info.telcordia.com/site-cgi/ido/docs.cgi?ID=SEARCH&DOCUMENT=GR-2982&> (purchase required); see also ATIS Report at 15-21; NGNP White Paper at 14.

<sup>106</sup> ATIS Report at 18-19.

<sup>107</sup> *Id.* at 15; NGNP White Paper at 14.

<sup>108</sup> ATIS Report at 15-19.

<sup>109</sup> NGNP White Paper at 13.

do these effects suggest for the viability of this solution currently? What is the likely timing for this option?

**C. Necessary Changes and Challenges to Achieving NNP**

61. Apart from the implications raised by each specific proposal outlined by ATIS and the NANC, most, if not all, NNP proposals will have consequences for a variety of other aspects of the network. We seek comment on these implications in the specific areas below.

62. *Routing and Interconnection.* Are there NNP solutions that can improve the efficiency of existing routing systems? Conversely, are there NNP proposals that burden or render inefficient particular systems or industry databases? Can such systems and databases be modified, improved, or obviated with NNP solutions?

63. *Public Safety.* We seek comment on the effects that NNP might have upon public safety, including users' ability to use 911 in the knowledge that their calls will be routed appropriately, and that Public Safety Answering Points (PSAP) will receive accurate callback and location information. Can an NNP system provide this information? To the extent that existing systems lack the ability to provide this information in various NNP scenarios, are there modifications, adaptations, or workarounds that can supply it?

64. For instance, how can proposed NNP solutions work with legacy systems that rely upon ANI to report the location of users calling 911? Are enhanced or next generation 911 services affected by the proposals? The ATIS Report details several number portability issues affecting emergency calls, and we seek comment on their resolution.<sup>110</sup>

65. The ATIS Report similarly notes potential effects of NNP proposals on the use of national security and emergency preparedness systems like Emergency Telecommunications Service (ETS), including the Government Emergency Telecommunication Service (GETS) and the Priority Access Service (PAS), which provide priority calling for emergency telecommunications.<sup>111</sup> What are the effects of the various proposals on the ability of ETS calls to be prioritized? Are there beneficial or deleterious effects on the network capacity, routing, or signaling of ETS?

66. *Access by Individuals with Disabilities.* We seek comment on how NNP implementations might affect access to communications services by individuals with disabilities. Can increased intermodal and geographic porting provide increased access to communications networks by individuals using assistive technologies? The Commission has permitted video relay service (VRS) and IP Relay users to register and obtain 10-digit geographic numbers, allowing users to be reached through a single number that will automatically connect to the registered user's primary VRS or IP Relay provider and allow the provider to determine the user's IP address for the purpose of delivering incoming calls made to that number.<sup>112</sup> The Commission also adopted requirements allowing VRS and IP Relay users to have both their 10-digit number and registered location information forwarded to the appropriate PSAP.<sup>113</sup> We seek comment on how any NNP implementations might benefit these services, equivalent services, or any other services that serve individuals with hearing and speech disabilities. Can widespread NNP adoption promote technologies and systems that allow for more efficient or user-friendly ways to achieve these, or better, effects? What steps would be necessary to ensure that access to communications services

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<sup>110</sup> ATIS Report at 29-36.

<sup>111</sup> *Id.* at 36-39.

<sup>112</sup> *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities et al.*, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 11591, 11592, para. 1 (2008) (*iTRS Order*); 47 CFR § 64.605.

<sup>113</sup> *See iTRS Order*, 23 FCC Rcd at 11621-22, paras. 79-84.

for Americans with disabilities continues to be robust and secure in an NNP scenario, such as if numbers are assigned without regard to geography?

67. *Tariffs and Intercarrier Compensation.* We also seek comment on the various ways that NNP could affect carriers' pricing issues. How will proposed NNP implementations affect existing carrier tariffs? What are the ways in which various NNP proposals may alter the existing system of intercarrier compensation? Are there systems that can support or encourage a bill-and-keep system? What costs and benefits would such systems generate?

#### **D. Number Administration**

68. We also seek comment on how changes to our current methods of numbering plan, number pooling, and number portability administration might facilitate NNP, or how NNP might affect these existing systems. If we significantly simplify the assignment and porting of numbers, would these changes require modifications to the current systems? Would it be possible, and beneficial, to allow multiple entities to provide competitive numbering administration services? Are there other systems of addressing what can serve as models for an evolving and increasingly IP-based network?

### **V. LEGAL AUTHORITY**

69. As noted above, section 251(e)(1) of the Act gives the Commission "exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States" and provides that numbers must be made "available on an equitable basis."<sup>114</sup> The Commission retains "authority to set policy with respect to all facets of numbering administration in the United States."<sup>115</sup> The Commission has promulgated local number portability rules to satisfy these congressional mandates,<sup>116</sup> and the proposed actions in this NPRM are intended to further and better satisfy these mandates. We seek comment on this assessment.

70. Moreover, section 10 of the Act states that the Commission shall forbear from applying any regulation or provision of the Act if it determines that: (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory; (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest.<sup>117</sup> We believe that our proposals discussed here satisfy these criteria as the remaining interexchange dialing parity requirements for competitive LECs are no longer necessary in today's all distance market to ensure that the charges and practices of competitive LECs are just and reasonable and are not unjustly or unreasonably discriminatory, and are no longer necessary for the protection of consumers. We seek comment on our forbearance analysis, as well as any other issues pertinent to our legal authority to facilitate NNP.

### **VI. PROCEDURAL MATTERS**

#### **A. Deadlines and Filing Procedures**

71. 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 on or before the dates indicated on the first page of this document in Dockets WC 17-244, and WC 13-97. Comments may be filed using the

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<sup>114</sup> 47 U.S.C. § 251(e)(1).

<sup>115</sup> *Local Competition Second Report and Order*, 11 FCC Rcd at 19512, para. 271.

<sup>116</sup> See 47 CFR §§ 52.101-111.

<sup>117</sup> 47 U.S.C. §160(a).

Commission's Electronic Comment Filing System (ECFS).<sup>118</sup> 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://apps.fcc.gov/ecfs/>
- *Paper Filers*: Parties who 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 12<sup>th</sup> 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 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.
- *People with Disabilities*: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

72. This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>119</sup> 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 format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

<sup>118</sup> See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

<sup>119</sup> 47 CFR §§ 1.1200 *et seq.*



**B. Initial Regulatory Flexibility Analysis**

73. Pursuant to the Regulatory Flexibility Act (RFA),<sup>120</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and actions considered in this Notice of Proposed Rulemaking. The text of the IRFA is set forth in Appendix B. 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 comment on the Notice of Proposed Rulemaking. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>121</sup>

**C. Paperwork Reduction Act**

74. This document may contain proposed new or modified 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 the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.<sup>122</sup>

**D. Contact Person**

75. For further information about this proceeding, please contact Sherwin Siy, FCC Wireline Competition Bureau, Competition Policy Division, Room 5-C225, 445 12th Street, S.W., Washington, D.C. 20554, (202) 418-2783, Sherwin.Siy@fcc.gov.

**VII. ORDERING CLAUSES**

76. Accordingly, IT IS ORDERED, pursuant to sections 1, 4(i), 10, 201(b), and 251(e) of the Communication Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 160, 201(b), and 251(e) that this Notice of Proposed Rulemaking and Notice of Inquiry IS ADOPTED.

77. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

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<sup>120</sup> See 5 U.S.C. § 603.

<sup>121</sup> See 5 U.S.C. § 603(a).

<sup>122</sup> See 44 U.S.C. § 3506(c)(4).

## APPENDIX A

## Draft Proposed Rules for Comment

The Federal Communications Commission proposes to amend Parts 51 and 52 of Title 47 of the Code of Federal Regulations as follows:

**PART 51 – INTERCONNECTION**

\* \* \* \* \*

**Subpart C – Obligations of All Local Exchange Carriers****§ 51.205**

1. Amend Section 51.205 to read as follows:

**§ 51.205 Dialing parity: General.**

A local exchange carrier (LEC) shall provide local dialing parity to competing providers of telephone exchange service, with no unreasonable dialing delays. Dialing parity shall be provided for originating telecommunications services that require dialing to route a call.

**§ 51.209 [Removed]**

Remove § 51.209.

**§ 51.213 [Removed]**

Remove § 51.213.

**§ 51.215 [Removed]**

Remove § 51.215.

**PART 52 – NUMBERING**

\* \* \* \* \*

**Subpart C—Number Portability**

1. Amend section 52.26(a) by:

The revision reads as follows:

**§ 52.26(a) NANC Recommendations on Local Number Portability Administration.<sup>1</sup>**

Local number portability administration shall comply with the recommendations of the North American Numbering Council (NANC) as set forth in the report to the Commission prepared by the NANC's Local Number Portability Administration Selection Working Group, dated April 25, 1997 (*Working Group Report*) and its appendices, which are incorporated by reference pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. *Except that: Sections 7.8 and 7.10 of Appendix D and the following portions of Appendix E:*

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<sup>1</sup> The NANC Apr. 25, 1997 Working Group Report is available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-341177A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-341177A1.pdf)

Section 7, Issue Statement I of Appendix A, and Appendix B in the *Working Group Report* are *not* incorporated herein.

**APPENDIX B****Initial Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>124</sup> the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (NPRM). The Commission requests written public comments on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the NPRM. The Commission will send a copy of the NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>125</sup> In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.<sup>126</sup>

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

2. In this NPRM, we propose changes to, and seek comment on, our rules on Local Number Portability Administration, and Nationwide Number Portability (NNP). In the NPRM, the Commission proposes to rescind the N-1 query requirement. Further, based on the ATIS Report and the marketplace findings in the *2015 USTelecom Forbearance Order*, we propose to eliminate remaining interexchange dialing parity requirements. The objectives of the proposed modifications are to remove impediments to NNP.

**B. Legal Basis**

3. The legal basis for any action that may be taken pursuant to this NPRM is contained in sections 1, 4(i), 10, 201(b), and 251(e)(1) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 160, 201(b), and 251(e)(1).

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

4. 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 and by the rule revisions on which the NPRM seeks comment, if adopted.<sup>127</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>128</sup> In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.<sup>129</sup> 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 SBA.<sup>130</sup>

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<sup>124</sup> See 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).

<sup>125</sup> See 5 U.S.C. § 603(a).

<sup>126</sup> See 5 U.S.C. § 603(a).

<sup>127</sup> See 5 U.S.C. § 603(b)(3).

<sup>128</sup> See 5 U.S.C. § 601(6).

<sup>129</sup> 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 term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>130</sup> See 15 U.S.C. § 632.

5. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive small entity size standards that could be directly affected herein.<sup>131</sup> First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.<sup>132</sup> These types of small businesses represent 99.9% of all businesses in the United States which translates to 28.8 million businesses.<sup>133</sup> Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."<sup>134</sup> Nationwide, as of 2007, there were approximately 1,621,215 small organizations.<sup>135</sup> Finally, the small entity described as a "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."<sup>136</sup> U.S. Census Bureau data published in 2012 indicate that there were 89,476 local governmental jurisdictions in the United States.<sup>137</sup> We estimate that, of this total, as many as 88,761 entities may qualify as "small governmental jurisdictions."<sup>138</sup> Thus, we estimate that most governmental jurisdictions are small.

6. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as "establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry."<sup>139</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>140</sup> Census data for 2012 show that there were 3,117 firms that operated

<sup>131</sup> See 5 U.S.C. § 601(3)-(6).

<sup>132</sup> See SBA, Office of Advocacy, "Frequently Asked Questions, Question 1 – What is a small business?" [https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016\\_WEB.pdf](https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf) (June 2016).

<sup>133</sup> See SBA, Office of Advocacy, "Frequently Asked Questions, Question 2- How many small businesses are there in the U.S.?" [https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016\\_WEB.pdf](https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf) (June 2016).

<sup>134</sup> 5 U.S.C. § 601(4).

<sup>135</sup> Independent Sector, *The New Nonprofit Almanac & Desk Reference* (2010).

<sup>136</sup> 5 U.S.C. § 601(5).

<sup>137</sup> U.S. Census Bureau, *Statistical Abstract of the United States: 2012* at 267, Table 428 (2011), <http://www2.census.gov/library/publications/2011/compendia/statab/131ed/2012-statab.pdf> (citing data from 2007).

<sup>138</sup> The 2012 U.S. Census Bureau data for small governmental organizations are not presented based on the size of the population in each organization. There were 89,476 local governmental organizations in the Census Bureau data for 2012, which is based on 2007 data. As a basis of estimating how many of these 89,476 local government organizations were small, we note that there were a total of 715 cities and towns (incorporated places and minor civil divisions) with populations over 50,000 in 2011. See U.S. Census Bureau, *City and Town Totals Vintage: 2011*, <http://www.census.gov/popest/data/cities/totals/2011/index.html>. If we subtract the 715 cities and towns that meet or exceed the 50,000 population threshold, we conclude that approximately 88,761 are small.

<sup>139</sup> U.S. Census Bureau, *NAICS Search*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch> (last visited June 21, 2017).

<sup>140</sup> 13 CFR § 121.201 (NAICS Code 517110).

that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>141</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

7. *Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.<sup>142</sup> According to Commission data, census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>143</sup> The Commission therefore estimates that most providers of local exchange carrier service are small entities that may be affected by the rules adopted.

8. *Incumbent LECs*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers as defined above. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>144</sup> According to Commission data, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>145</sup> Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by the rules and policies adopted. Three hundred and seven (307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.<sup>146</sup> Of this total, an estimated 1,006 have 1,500 or fewer employees.<sup>147</sup>

9. *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 NAICS Code category is Wired Telecommunications Carriers, as defined above. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>148</sup> U.S. Census data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees.<sup>149</sup> Based on this data, the Commission concludes that the majority of Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers, are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either

<sup>141</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodTtype=table).

<sup>142</sup> 13 CFR § 121.201 (NAICS Code 517110).

<sup>143</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodTtype=table).

<sup>144</sup> 13 CFR § 121.201 (NAICS Code 517110).

<sup>145</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodTtype=table).

<sup>146</sup> See Fed. Commc'n Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>147</sup> Fed. Commc'n Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>148</sup> 13 CFR § 121.201 (NAICS Code 517110).

<sup>149</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodTtype=table).



competitive local exchange services or competitive access provider services.<sup>150</sup> Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees.<sup>151</sup> 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.<sup>152</sup> Also, 72 carriers have reported that they are Other Local Service Providers.<sup>153</sup> Of this total, 70 have 1,500 or fewer employees.<sup>154</sup> Consequently, based on internally researched FCC data, 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.

10. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”<sup>155</sup> The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.<sup>156</sup> We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

11. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired Telecommunications Carriers as defined above. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.<sup>157</sup> U.S. Census data for 2012 indicates that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees.<sup>158</sup> According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.<sup>159</sup> Of this total, an estimated 317 have 1,500 or

<sup>150</sup> See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>151</sup> Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>152</sup> Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>153</sup> Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>154</sup> Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>155</sup> 5 U.S.C. § 601(3).

<sup>156</sup> Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

<sup>157</sup> 13 CFR § 121.201 (NAICS Code 517110).

<sup>158</sup> See U.S. Census Bureau, American Fact Finder (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>159</sup> See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

fewer employees.<sup>160</sup> Consequently, the Commission estimates that the majority of IXC's are small entities that may be affected by our proposed rules.

12. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.<sup>161</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>162</sup> Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.<sup>163</sup> Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

13. *Toll Resellers.* The Commission has not developed a definition for Toll Resellers. The closest NAICS Code Category is Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.<sup>164</sup> The SBA has developed a small business size standard for the category of Telecommunications Resellers.<sup>165</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>166</sup> Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, 1,341 operated with fewer than 1,000 employees.<sup>167</sup> Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.<sup>168</sup> Of this total, an estimated 857

<sup>160</sup> Fed. Comm'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>161</sup> U.S. Census Bureau, *2012 NAICS Definition*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012> (last visited June 20, 2017).

<sup>162</sup> 13 CFR § 121.201 (NAICS code 517911).

<sup>163</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>164</sup> U.S. Census Bureau, *2012 NAICS Definition*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012> (last visited June 20, 2017) (NAICS 517911 Telecommunications Resellers).

<sup>165</sup> 13 CFR § 121.201 (NAICS code 517911).

<sup>166</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>167</sup> U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>168</sup> Fed. Comm'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

have 1,500 or fewer employees.<sup>169</sup> Consequently, the Commission estimates that the majority of toll resellers are small entities.

14. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable NAICS Code category is for Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.<sup>170</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>171</sup> Thus, under this category and the associated small business size standard, the majority of Other Toll Carriers can be considered small. According to internally developed Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.<sup>172</sup> Of these, an estimated 279 have 1,500 or fewer employees.<sup>173</sup> Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by rules adopted pursuant to the Second Further Notice.

15. *Prepaid Calling Card Providers.* The SBA has developed a definition for small businesses within the category of Telecommunications Resellers. Under that SBA definition, such a business is small if it has 1,500 or fewer employees.<sup>174</sup> According to the Commission's Form 499 Filer Database, 500 companies reported that they were engaged in the provision of prepaid calling cards.<sup>175</sup> The Commission does not have data regarding how many of these 500 companies have 1,500 or fewer employees. Consequently, the Commission estimates that there are 500 or fewer prepaid calling card providers that may be affected by the rules.

16. *Wireless Telecommunications Carriers (except Satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.<sup>176</sup> The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.<sup>177</sup> For this industry, U.S. Census data for 2012 show that there were

<sup>169</sup> Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>170</sup> 13 CFR § 121.201 (NAICS code 517110).

<sup>171</sup> See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>172</sup> Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>173</sup> Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>174</sup> 13 CFR § 121.201 (NAICS code 517110).

<sup>175</sup> See Fed. Commc'ns Comm'n, *FCC Form 499 Filer Database*, <http://apps.fcc.gov/cgb/form499/499a.cfm> (last visited June 20, 2017).

<sup>176</sup> See U.S. Census Bureau, *American Fact Finder—About the Data*, <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en/ECN.NAICS2012.517210> (NAICS Code 517210).

<sup>177</sup> 13 CFR § 121.201 (NAICS code 517210).

967 firms that operated for the entire year.<sup>178</sup> Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.<sup>179</sup> Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

17. The Commission's own data—available in its Universal Licensing System—indicate that, as of October 25, 2016, there are 280 Cellular licensees that will be affected by our actions today.<sup>180</sup> The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service, and Specialized Mobile Radio Telephony services.<sup>181</sup> Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.<sup>182</sup> Thus, using available data, we estimate that the majority of wireless firms can be considered small.

18. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. 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.<sup>183</sup> The SBA has approved these definitions.<sup>184</sup>

19. *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).<sup>185</sup> Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.<sup>186</sup> According to Commission data, 413 carriers reported that they were engaged in wireless telephony.<sup>187</sup> Of these, an

<sup>178</sup> U.S. Census Bureau, *American Fact Finder* (Jan 08, 2016), [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table) (NAICS 51720, “Subject Series - Estab & Firm Size: Employment Size of Establishments for the U.S.: 2012”).

<sup>179</sup> U.S. Census Bureau, *American Fact Finder* (Jan 08, 2016), [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table) (NAICS 51720, “Subject Series - Estab & Firm Size: Employment Size of Establishments for the U.S.: 2012”). Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

<sup>180</sup> See Fed. Commc'ns Comm'n, *Universal Licensing System*, <http://wireless.fcc.gov/uls> (last visited June 20, 2017). For the purposes of this FRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

<sup>181</sup> See Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>182</sup> See Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>183</sup> *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

<sup>184</sup> See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

<sup>185</sup> 13 CFR § 121.201 (NAICS code 517210).

<sup>186</sup> 13 CFR § 121.201 (NAICS code 517210).

<sup>187</sup> Fed. Commc'ns Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.<sup>188</sup> Therefore, a little less than one third of these entities can be considered small.

20. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (e.g. limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers.<sup>189</sup> The SBA has established a size standard for this industry stating that a business in this industry is small if it has 1,500 or fewer employees.<sup>190</sup> The 2012 Economic Census indicates that 367 firms were operational for that entire year. Of this total, 357 operated with less than 1,000 employees.<sup>191</sup> Accordingly we conclude that a substantial majority of firms in this industry are small under the applicable SBA size standard.

21. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.<sup>192</sup> Industry data indicate that there are currently 4,600 active cable systems in the United States.<sup>193</sup> Of this total, all but eleven cable operators nationwide are small under the 400,000-subscriber size standard.<sup>194</sup> In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers.<sup>195</sup> Current Commission records show 4,600 cable systems nationwide. Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.<sup>196</sup> Thus, under this standard as well, we estimate that most cable systems are small entities.

22. *Cable System Operators (Telecom Act Standard).* The Communications Act also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."<sup>197</sup> There are approximately 52,403,705 cable video subscribers in the United States

<sup>188</sup> Fed. Comm'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-301823A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf).

<sup>189</sup> See U.S. Census Bureau, 2012 NAIC Definition, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=515210&search=2012+NAICS+Search&search=2012> (last visited June 20, 2017) (2012 NAICS code, "515210 Cable and Other Subscription Programming").

<sup>190</sup> 13 CFR § 121.201 (NAICSs Code 515210).

<sup>191</sup> See U.S. Census Bureau, *American Fact Finder* (Jan 08, 2016), [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table) (NAICS code 51510, "Estab & Firm Size: Employment Size of Establishments for the U.S.").

<sup>192</sup> 47 CFR § 76.901(e).

<sup>193</sup> This figure was derived from an August 15, 2015 report from the FCC Media Bureau, based on data contained in the Commission's Cable Operations and Licensing System (COALS). See <http://www.fcc.gov/coals>.

<sup>194</sup> Data obtained from SNL Kagan database on April 19, 2017.

<sup>195</sup> 47 CFR § 76.901(c).

<sup>196</sup> August 5, 2015 report from the FCC Media Bureau based on its research in COALS. See <http://www.fcc.gov/coals>.

<sup>197</sup> 47 CFR § 76.901(f) & nn.1-3.



today.<sup>198</sup> Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.<sup>199</sup> Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.<sup>200</sup> The Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.<sup>201</sup> Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

23. *All Other Telecommunications.* “All Other Telecommunications” is defined as follows: This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.<sup>202</sup> The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$32.5 million or less.<sup>203</sup> For this category, census data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than \$25 million.<sup>204</sup> Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

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

24. This NPRM proposes changes to, and seeks comment on, Commission rules on Local Number Portability Administration, and Nationwide Number Portability (NNP). The NPRM seeks to amend our rules by removing the N-1 query requirement<sup>205</sup> and proposes to forbear from remaining interexchange dialing parity requirements of section 251(b)(3).<sup>206</sup> The objectives of the proposed modifications are to remove impediments to NNP. As the NPRM seeks comment on rule withdrawal and forbearance, we therefore do not adopt new reporting, recordkeeping, or other compliance requirements.

<sup>198</sup> See SNL Kagan at <http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx> (subscription required).

<sup>199</sup> 47 CFR § 76.901(f) & nn.1-3.

<sup>200</sup> See SNL Kagan at <http://www.snl.com/interactivex/TopCableMSOs.aspx> (subscription required).

<sup>201</sup> The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission’s rules. See 47 CFR § 76.901(f).

<sup>202</sup> U.S. Census Bureau, *NAICS Search*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch> (last visited June 21, 2017) (enter 2012 NAICS code 517919).

<sup>203</sup> 13 CFR § 121.201 (NAICS Code 517919).

<sup>204</sup> U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ4&prodT\\_ye=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodT_ye=table) (2012 NAICS Code 517919, “Estab & Firm Size: Receipts Size of Firms for the U.S.”).

<sup>205</sup> 47 CFR § 52.26(a).

<sup>206</sup> 47 CFR §§ 51.209, 51.213, and 51.215.



25. As reported in the Final Regulatory Flexibility Analysis (1996 FRFA) of the 1996 order instituting<sup>207</sup> the dialing parity rules,<sup>208</sup> the compliance requirements of the Section 251 dialing parity rules include “dialing-parity specific software, hardware, signaling system upgrades and necessary consumer education.”<sup>209</sup> Such compliance entailed the “use of engineering, technical, operational, and accounting skills.”<sup>210</sup> We seek comment on whether withdrawing these proposed rules will enable LECs, including small entities, to reduce or eliminate these costs via a lesser compliance burden.

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

26. The RFA requires an agency to describe any significant 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 and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.<sup>211</sup>

27. The 1996 FRFA states that the dialing parity provisions allowed “LECs and competing providers of telephone toll service” including small entities “to not be subject to an array of differing state standards and timetables requiring them to research and tailor their operations to the unique requirements of each state.”<sup>212</sup> We seek comment as to the extent all LECs, including small entities, will be economically impacted by the removal of nationwide provisions.

28. The 1996 FRFA also explains that as result of the dialing parity rules, a carrier could not automatically designate itself as a “toll carrier without notifying the customer of the opportunity to choose an alternative carrier, one or more of which may be a small business.”<sup>213</sup> We seek comment as to any additional economic burden incurred by small entities as a result of the withdrawal of the dialing parity rule.

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

29. None.

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<sup>207</sup> See generally *Local Competition Second Report and Order*.

<sup>208</sup> E.g. 47 CFR 51.205, 51.207, 51.209, 51.213, 51.215, and 51.217

<sup>209</sup> *Local Competition Second Report and Order*, 11 FCC Rcd at 19555, para. 381.

<sup>210</sup> *Id.* at 19555, para. 381.

<sup>211</sup> 5 U.S.C. § 603(c)(1)-(c)(4).

<sup>212</sup> *Local Competition Second Report and Order*, 11 FCC Rcd at 19555, para. 382.

<sup>213</sup> *Id.* at 19556, para. 386.

**STATEMENT OF  
CHAIRMAN AJIT PAI**

Re: *Nationwide Number Portability*, WC Docket No. 17-244; *Numbering Policies for Modern Communications*, WC Docket No. 13-97.

In his classic 1981 anthem, Tommy Tutone begs, “Jenny, don’t change your number. 867-5309.”<sup>214</sup> Unfortunately for Tommy, if Jenny today wanted to switch her service to certain smaller, non-nationwide carriers, she very well might not be able to keep her phone number.

But today we begin considering ways to change that. We propose removing outdated rules that may impede so-called nationwide number portability. And we start to explore how to support greater choice by letting a consumer keep her number no matter the carrier she chooses. This will help everyone benefit from competition.

Thanks to the dedicated staff for their efforts: Bill Andrie, Ken Carlberg, Terry Cavanaugh, Alex Espinoza, Heather Hendrickson, Dan Kahn, Rick Mallen, Timothy May, Kris Monteith, Claudia Pabo, Sherwin Siy, Jerome Stanshine, and Ann Stevens.

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<sup>214</sup> Tommy Tutone, 867-5309/Jenny, *Tommy Tutone 2*, Columbia Records, 1981.

**STATEMENT OF  
COMMISSIONER MIGNON L. CLYBURN**

Re: *Nationwide Number Portability*, WC Docket No. 17-244; *Numbering Policies for Modern Communications*, WC Docket No. 13-97.

Number portability may not grab frontpage headlines but its implications for consumer choice and competition are significant. Nearly two years ago, the Commission requested that the North American Numbering Council (NANC) evaluate and recommend actions to enable nationwide number portability. In May 2016, the NANC answered with a far-ranging report identifying paths forward and likely barriers that the Commission would need to consider along the way. Today, we move towards making nationwide number portability a reality, by opening a proceeding to examine exactly whether and how we should implement it.

I look forward to reviewing the record, and evaluating what next steps we as a Commission should take. I am particularly interested in hearing from consumers on how this will impact their ability to move freely from one carrier to another, as well as from carriers as to how this will impact their ability to compete in the marketplace.

While I am tempted to use this opportunity to make an incredibly relevant, yet inappropriate, reference to a rap song about gardening implements and numbering resources, my better angels hold me back. Instead I will thank the Wireline Competition Bureau and the numbering team in particular, for your hard work on this item.

**STATEMENT OF  
COMMISSIONER MICHAEL O'RIELLY**

*Re: Nationwide Number Portability, WC Docket No. 17-244; Numbering Policies for Modern Communications, WC Docket No. 13-97.*

In this item, the Commission invites comment on potential steps to implement nationwide number portability, both to expand opportunities for consumers and businesses to retain their numbers when switching providers, as well to promote more efficient call routing. While those are valid objectives, I have seen comments cautioning that nationwide number portability could prove costly for certain providers, and I also wonder about the long-term value of numbers to consumers. Therefore, I hope to receive a robust record that enables the Commission to delve into these issues and complete a cost-benefit analysis.

We should also keep in mind that promoting full nationwide number portability is likely to lead to an increase in individuals who keep their previous telephone number as they relocate elsewhere. Ironically, doing so simultaneously makes us all guilty of increasing what the Commission has inelegantly referred to as “neighborhood spoofing” -- the act of a call appearing to be made from a local site but is actually being made from a location outside the local calling area. This is one of the reasons that I argued that not all “neighborhood spoofing” is bad and why we should be more precise about such definitions. I hope we can revisit this issue in the future as I am sure no one on this dais would like to be known as facilitating spoofing.

I vote to approve.

**STATEMENT OF  
COMMISSIONER BRENDAN CARR**

Re: *Nationwide Number Portability*, WC Docket No. 17-244; *Numbering Policies for Modern Communications*, WC Docket No. 13-97.

In 1937, the Pulitzer Prize for Drama went to the Broadway play “You Can’t Take It with You.” Eighty years later, this phrase is unfortunately all too applicable to consumers in the number portability context. Consumers can take their phone numbers with them when they switch providers or move relatively locally. However, our rules generally prevent consumers who are moving to a new state, or in some cases, to a neighboring county or city, from doing the same. This is not only an annoyance for consumers, but it can hurt competition when small and regional service providers cannot offer new customers the ability to keep their phone numbers.

Accordingly, I am glad the Commission is initiating this Notice of Proposed Rulemaking and Notice of Inquiry to examine ways to encourage nationwide number portability. I would like to thank my colleagues for incorporating into the Notice some questions I have about how the proposed routing changes might impact 911 or Next Generation 911 calls. It is not clear that there would be any impact, but this is a question that I am glad stakeholders will be able to address in their comments. I support this item, and I look forward to reviewing the record as it develops.