

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

In the Matter of)
Numbering Policies for Modern Communications) WC Docket No. 13-97
IP-Enabled Services) WC Docket No. 04-36
Telephone Number Requirements for IP-Enabled Services Providers) WC Docket No. 07-243
Telephone Number Portability) CC Docket No. 95-116
Developing a Unified Intercarrier Compensation Regime) CC Docket No. 01-92
Connect America Fund) WC Docket No. 10-90
Numbering Resource Optimization) CC Docket No. 99-200

REPORT AND ORDER

Adopted: June 18, 2015

Released: June 22, 2015

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

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I. INTRODUCTION

1. The nation’s communications infrastructure is undergoing key technology transitions, including that from networks based on time-division multiplexed (TDM) circuit-switched voice services to all-Internet Protocol (IP) multi-media networks.¹ Already, these transitions have brought innovative and improved communications services to the marketplace, and consumers have embraced these new technologies. This is evidenced by the nearly 48 million interconnected VoIP retail local telephone service connections in service as of the end of 2013, comprising over a third of all wireline retail local telephone service connections.²

2. Our actions today support these transitions. We establish a process to authorize interconnected VoIP providers to obtain North American Numbering Plan (NANP) telephone numbers³ directly from the Numbering Administrators, rather than through intermediaries.⁴ Our actions will

¹ *Technology Transitions, et al.*, GN Docket No. 13-5, et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433, 1435, para. 1 (2014) (*Technology Transitions Order*); *Ensuring Customer Premises Equipment Backup Power for Continuity of Communications; Technology Transitions; Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers; Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, PS Docket No. 14-174, GN Docket No. 13-5, RM-11358, WC Docket No. 05-25, RM-10593, Notice of Proposed Rulemaking and Declaratory Ruling, 29 FCC Rcd 14969 (2014) (*Copper Retirement NPRM*).

² See Local Telephone Competition: Status as of December 31, 2013, FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, at 3, Fig. 2 (Oct. 16, 2014), https://apps.fcc.gov/edocs_public/attachmatch/DOC-329975A1.pdf (*Local Telephone Competition Report*).

³ The NANP is the basic numbering scheme for telecommunications networks located in the United States and its territories, Canada, and parts of the Caribbean. See 47 C.F.R. § 52.5(c). NANP telephone numbers are ten-digit numbers consisting of a three-digit area code, followed by a seven-digit local number. In order to provide interconnected VoIP service, a provider must offer customers NANP telephone numbers; otherwise, a customer on the public switched telephone network (PSTN) would not have a way to dial the interconnected VoIP customer using his PSTN service. See SBC IP Communications, Inc. Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission’s Rules Regarding Access to Numbering Resources, CC Docket No. 99-200, at 2–3 (filed July 7, 2004) (SBCIS Waiver Petition). Any reference in this *Report and Order* to “direct access to numbers” (or similar phrasing) refers to direct access to NANP numbers.

⁴ In this Order, we refer to the North American Numbering Plan Administrator (NANPA) and the Pooling Administrator as the Numbering Administrators.

facilitate innovative technologies and services that will benefit both consumers and providers, and further the Commission's recognized pro-consumer, pro-competition, and public safety goals.⁵ In addition, permitting interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators will improve responsiveness in the number porting process and increase visibility and accuracy of number utilization, enabling the Commission to more effectively protect the Nation's finite numbering resources. Our authorization process also enhances our ability to enforce the rules against interconnected VoIP providers. Finally, we also expect that, to the extent it encourages VoIP interconnection, authorizing interconnected VoIP providers to obtain numbers directly will help stakeholders and the Commission identify the source of routing problems and take corrective actions.

3. First, this Order establishes an authorization process to enable interconnected VoIP providers that choose direct access to request numbers directly from the Numbering Administrators. Next, the Order sets forth several conditions designed to minimize number exhaust and preserve the integrity of the numbering system. Finally, the Order also modifies Commission's rules in order to permit VoIP Positioning Center (VPC) providers to obtain pseudo-Automatic Number Identification (p-ANI) codes directly from the Numbering Administrators for purposes of providing E911 services.⁶ These relatively modest steps will have lasting, positive impacts for consumers and the communications industry as we continue to undergo technology transitions.

II. BACKGROUND

4. Section 52.15(g)(2)(i) of the Commission's rules limits access to telephone numbers to entities that demonstrate they are authorized to provide service in the area for which the numbers are being requested.⁷ The Commission has interpreted this rule as requiring evidence of either a state certificate of public convenience and necessity (CPCN) or a Commission license. As a practical matter, generally only telecommunications carriers are able to provide the proof of authorization required under our rules, and thus able to obtain numbers directly from the Numbering Administrators. As explained below, neither authorization is typically available in practice to interconnected VoIP providers.⁸ The Commission has waived section 52.15(g)(2)(i) in two instances. The first was in 2005 to allow SBC Information Services (SBCIS), an information service provider that lacked state certification as a carrier, to obtain numbers directly from the Numbering Administrators.⁹ In that Order, the Commission stated that, "[t]o the extent other entities seek similar relief we would grant such relief to an extent comparable to what we set forth in this Order."¹⁰ Following that Order, a number of entities filed similar petitions.¹¹

⁵ See *Technology Transitions Order*, 29 FCC Rcd at 1435-36, paras. 2-4.

⁶ VPC providers are entities that help interconnected VoIP providers deliver 911 calls to the appropriate public safety answering point (PSAP). Among other things, VPCs provide such capabilities as location-based call routing and real-time delivery to the PSAP of the caller's location information. A p-ANI is a number, consisting of the same number of digits as an Automatic Number Identification (ANI), that is not a NANP telephone directory number and may be used in place of an ANI to convey special meaning to the selective router, PSAP, and other elements of the 911 system. See *IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, WC Docket Nos. 04-36, 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10252-53, para. 17 (2005) (*VoIP 911 Order*); 47 C.F.R. § 9.3. P-ANI codes are a numbering resource administered by the Routing Number Administrator (RNA). See *infra* Section III.E.

⁷ 47 C.F.R. § 52.15(g)(2)(i).

⁸ See *infra* para. 20.

⁹ *Administration of the North American Numbering Plan*, CC Docket No. 99-200, Order, 20 FCC Rcd 2957 (2005) (*SBCIS Waiver Order*). SBCIS is now AT&T Internet Services.

¹⁰ *Id.* at 2959, para 4.

¹¹ Between February 2005 and August 2012, the following entities filed petitions for waiver of section 52.15(g)(2)(i): Bandwidth.com, Inc.; Constant Touch Communications; CoreComm-Voyager, Inc.; Dialpad Communications, Inc.; Frontier Communications of America, Inc.; Net2Phone Inc.; Nuvio Corporation; Qwest

The second waiver was in 2013, in order to conduct a limited trial allowing interconnected VoIP providers direct access to numbers.¹² As described below, this trial demonstrated that there are no technical barriers preventing interconnected VoIP providers from accessing numbering resources directly and using them without intermediate carriers.

A. Direct Access NPRM

5. On April 18, 2013, the Commission adopted the *Direct Access NPRM* which, among other things, proposed to allow interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators, subject to certain requirements.¹³ The Commission anticipated that allowing interconnected VoIP providers to have direct access to numbers would help speed the delivery of innovative services to consumers and businesses, while preserving the integrity of the network and appropriate oversight of telephone number assignments.¹⁴

6. In the *Direct Access NPRM*, the Commission sought comment on: (1) what type of documentation interconnected VoIP providers should have to provide to the Numbering Administrators in order to obtain numbers,¹⁵ (2) which existing or new numbering-related Commission requirements should apply to interconnected VoIP providers requesting numbers,¹⁶ and (3) how the Commission can enforce VoIP provider compliance with any numbering requirements it mandates.¹⁷ Specifically, regarding numbering requirements, the Commission proposed and sought comment on imposing the same requirements that it imposed in the *SBCIS Waiver Order*—number utilization and optimization requirements, numbering-related industry guidelines and practices that apply to carriers, and a 30-day notice period to inform the Commission and relevant states of the interconnected VoIP provider's intent to request numbers.¹⁸

7. In the *Direct Access NPRM*, the Commission sought comment on its proposal that interconnected VoIP providers may obtain numbers from any rate center unless a state commission finds that the request (1) is for numbers in a non-pooling rate center, and (2) will substantially contribute to number exhaust.¹⁹ It also sought comment on the Wisconsin Public Service Commission's proposal to impose the following requirements on interconnected VoIP providers seeking to obtain telephone numbers: (1) provide the relevant state commission with contact information for personnel qualified to address regulatory and numbering concerns upon first requesting numbers in that state; (2) consolidate

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Communications Corporation; SmartEdgeNet, LLC; UniPoint Enhanced Services d/b/a PointOne; RNK Inc.; VoEX, Inc.; Vonage Holdings Corporation; and WilTel Communications, LLC.

¹² See *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Notice of Proposed Rulemaking, Order, and Notice of Inquiry, 28 FCC Rcd 5842, 5880, para. 94 (2013) (*Direct Access NPRM*).

¹³ See *id.* at 5853, para. 16.

¹⁴ *Id.*

¹⁵ *Id.* at 5854-55, para. 21.

¹⁶ *Id.* at 5857-58, paras. 26-28.

¹⁷ *Id.* at 5860-61, paras. 36-39.

¹⁸ See, e.g., *id.* at 5855-56, paras. 22-24, 5858, para. 31; 47 C.F.R. pt. 52. For example, section 52.15(f)(6) requires reporting carriers to file reports on their forecasted and actual number utilization on a semi-annual basis. 47 C.F.R. § 52.15(f)(6). Section 52.15(f)(7) provides state commissions access to data reported to the NANPA provided they have appropriate protections in place to prevent public disclosure of disaggregated, carrier-specific data. 47 C.F.R. § 52.15(f)(7). Section 52.15(i) details the role of the state commissions in the reclamation of numbering resources. 47 C.F.R. § 52.15(i).

¹⁹ *Direct Access NPRM*, 28 FCC Rcd at 5857, para 26.

and report all numbers under its own unique Operating Company Number (OCN),²⁰ (3) maintain the original rate center designation of all numbers in its inventory; and (4) to provide customers with the ability to access all N11 numbers in use in a state.²¹

8. The Commission also sought comment on a series of commitments offered by Vonage as a condition to obtaining direct access to numbers. Specifically, those commitments would require an interconnected VoIP provider to maintain at least 65 percent number utilization across its telephone number inventory, to offer VoIP interconnection to other carriers and providers, and to provide the Commission with a transition plan for migrating customers to its own numbers at least 90 days before commencing that migration and every 90 days thereafter for 18 months.²² The Commission also sought comment on whether it should modify its rules to allow VPC providers direct access to p-ANI codes for the provision of 911 and E911 services.²³ Finally, the NPRM addressed and sought comment on the Commission's legal authority to adopt the various requirements it proposed for direct access to numbers by interconnected VoIP providers.²⁴

B. Direct Access Technical Trial

9. In the *Direct Access NPRM*, the Commission established a six-month technical trial allowing interconnected VoIP providers to obtain direct access to numbers.²⁵ In the trial, the Commission granted limited, conditional waivers to providers that had pending petitions for waiver of section 52.15(g)(2)(i). These waivers allowed trial participants to obtain telephone numbers directly from the Numbering Administrators for use in providing interconnected VoIP services during the six-month technical trial.²⁶ The Commission tailored the trial to test whether giving interconnected VoIP providers direct access to numbers would raise issues relating to number exhaust, number porting, VoIP interconnection, or intercarrier compensation, and if so, how those issues could be addressed.²⁷ The *Direct Access NPRM* required trial participants to file regular reports throughout and at the end of the six-month trial, and allowed state commissions and other interested parties an opportunity to comment on the reports.²⁸

10. The Commission required trial participants to comply with its number utilization and optimization rules, as well as industry guidelines and practices, including abiding by the numbering authority delegated to state commissions and filing Numbering Resource Utilization and Forecast (NRUF) reports.²⁹ The Commission also required each trial participant to maintain at least 65 percent number utilization across its entire telephone number inventory.³⁰ State commissions recommended, and the Commission imposed, additional conditions on trial participants, including: (1) providing the relevant state commission with regulatory and numbering contacts when the interconnected VoIP provider

²⁰ An "Operating Company Number" is a four-character code used to identify telecommunications service providers. See ATIS-0300251, *Codes for Identification of Service Providers for Information Exchange*. The National Exchange Carrier Association assigns all OCNs.

²¹ *Direct Access NPRM*, 28 FCC Rcd at 5859, para. 34 (citing proposal by the Wisconsin PSC).

²² *Id.* at para. 32.

²³ *Id.* at 5874-75, paras. 77-81.

²⁴ *Id.* at 5876-77, paras. 83-86.

²⁵ *Id.* at 5878, para. 87.

²⁶ *Id.*

²⁷ *Id.* at 5881, para. 98.

²⁸ *Id.* at 5883, para. 103.

²⁹ *Id.* at para. 105.

³⁰ *Id.* at 5884, para. 106.

requests numbers in that state, (2) consolidating and reporting all numbers under its own unique OCN, (3) providing customers with the ability to access all abbreviated dialing codes (N11 numbers) in use in a state, and (4) maintaining the original rate center designation of all numbers in its inventory.

11. On June 17, 2013, the Wireline Competition Bureau (Bureau) adopted an Order announcing the participants in the trial. The Bureau concluded that the proposals submitted by Vonage Holdings Corp. (Vonage), SmartEdgeNet, LLC (SmartEdgeNet), WilTel Communications, LLC (WilTel or Level 3), Intelpeer, Inc. (Intelpeer), and Millicorp met the Commission's requirements to participate in a limited direct access to numbers trial, and approved them.³¹

12. Upon completion of the trial, the Bureau released the *Direct Access Trial Report*.³² The Bureau reported that the limited trial indicated that it is technically feasible for interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators and use them to provide services.³³ Issues involving carrier obligations for interconnection³⁴ and porting did arise during the trial, but did not appear to implicate technical concerns regarding direct access to numbers.³⁵ The Bureau concluded that additional guidance or clarification from the Commission could reduce such disputes in the future.³⁶

III. DISCUSSION

13. Our pro-consumer, pro-competitive actions today are consistent with the Commission's goal to facilitate the transition to all-IP networking and promote interconnection of IP-based voice networks,³⁷ and serve as an integral, incremental step in furthering the Nation's technology transition.³⁸ Based on the record in this proceeding, including the technical trial, and consistent with our proposal in the *Direct Access NPRM*, we establish a process to authorize interconnected VoIP providers to voluntarily request and obtain telephone numbers directly from the Numbering Administrators under our rules, subject to their compliance with certain numbering administration requirements. Generally, we require interconnected VoIP providers obtaining numbers to comply with the same requirements applicable to carriers seeking to obtain numbers. These requirements include any state requirements pursuant to numbering authority delegated to the states by the Commission,³⁹ as well as industry guidelines and

³¹ See *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Order, 28 FCC Rcd 8889 (Wireline Comp. Bur. 2013).

³² *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Report, 29 FCC Rcd 927 (Wireline Comp. Bur. 2014) (*Direct Access Trial Report*).

³³ *Id.* at 937, para. 28.

³⁴ During the trial, a number of the trial participants reported being unable to reach agreement with CenturyLink for traffic exchange. The record indicates that CenturyLink required trial participants to interconnect via dedicated trunks, and trial participants objected to this requirement as adding unnecessary costs to the exchange of traffic and discouraging interconnection in IP format. *Id.* at 934, para. 19.

³⁵ *Id.* at 937, para. 28.

³⁶ *Id.*

³⁷ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 26 FCC 17663, 17926, para. 783 (2011) (*USF/ICC Transformation Order*), *pets. for review denied sub nom. In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014).

³⁸ See AT&T Comments at 23 (“[P]roviding direct access to numbering resources will be an important catalyst in furthering the ongoing transition and broadening the commercial IP interconnection that already has occurred”); Windstream Reply at 10-11; AT&T Reply at 2; Vonage Reply at 7 (“Such incremental steps serve the public interest by furthering that transition in a measured way, and by providing the Commission and the industry with real-world experience and information that can inform future regulatory action.”).

³⁹ See *infra* note 88.

practices, among others. We also require interconnected VoIP providers to comply with facilities readiness requirements adapted to this context, and with numbering utilization and optimization requirements.

14. As conditions to requesting and obtaining numbers directly from the Numbering Administrators, we also require interconnected VoIP providers to: (1) provide the relevant state commissions with regulatory and numbering contacts when requesting numbers in those states, (2) request numbers from the Numbering Administrators under their own unique OCN, (3) file any requests for numbers with the relevant state commissions at least 30 days prior to requesting numbers from the Numbering Administrators, and (4) provide customers with the opportunity to access all abbreviated dialing codes (N11 numbers) in use in a geographic area. We discuss each of these requirements in detail below.

A. Benefits of Interconnected VoIP Providers Obtaining Numbers Directly

15. In reaching our decision, we have considered the potential risks and benefits of authorizing interconnected VoIP providers to directly access telephone numbering resources. Some commenters assert that authorizing interconnected VoIP providers to access numbers directly will potentially have adverse impacts on consumers,⁴⁰ competition and enforcement,⁴¹ as well as number exhaust.⁴² Other commenters assert that authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators could have negative consequences for routing and intercarrier compensation.⁴³ Still others assert unknown, unintended consequences of authorizing direct access for interconnected VoIP providers, and urge caution.⁴⁴ We find on balance that the expected benefits, discussed below, outweigh any perceived risks of authorizing interconnected VoIP providers to directly access telephone numbering resources. Moreover, we find that we can mitigate any risks through the conditions we establish in this Order.

16. The record supports our findings that allowing interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators will achieve a number of benefits. Both Vonage and VON assert that allowing interconnected VoIP providers to access numbers directly from the Numbering Administrators will improve efficiencies, provide greater control over call routing, and enhance the quality of service provided to customers.⁴⁵ As SmartEdgeNet explains, “[b]ecause interconnected VoIP providers who do their own numbering will be identified in the Local Exchange Routing Guide (‘LERG’) and similar industry databases, other providers will be able to determine more easily with whom they are exchanging traffic, which should lead to the development of new and more

⁴⁰ See, e.g., Bandwidth Comments at 9-10 (asserting that direct access poses a risk to traffic integrity because if non-carriers can use numbers to route traffic in ways outside of the number-assigned carrier’s control, it could lead to consumer harms in the form of spoofing, fraud, or call failures).

⁴¹ See, e.g., *id.* at 11-12.

⁴² See, e.g., *id.* at 9-10; Terra Nova Telecom Comments at 4.

⁴³ See, e.g., Bandwidth Comments at 7-8, 10; see also *infra* Sections III.B.5.c. and III.B.5.d. (discussing intercarrier compensation, and call routing and termination, issues).

⁴⁴ See, e.g., Bandwidth Comments at 11-12; NTCA Comments at 3.

⁴⁵ See Vonage Comments at 5-6 (asserting that interconnected VoIP providers will be able to reduce their reliance on third-party providers once they have direct access to numbers); VON Comments at 3-4 (explaining that “the Commission’s proposed rule will make it easier to determine who is ultimately responsible when problems arise, thereby streamlining the channels through which those problems can be resolved”); see also Letter from Brita D. Strandberg, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 *et al.*, at 2 (filed Apr. 11, 2014) (Vonage Apr. 11, 2014 *Ex Parte* Letter) (“During the trial, Vonage found that the routing enabled by direct access measurably improved call quality.”).

efficient traffic exchange and call termination arrangements.”⁴⁶ We find that allowing interconnected VoIP providers to access numbers directly from the Numbering Administrators will increase the transparency of call routing, and that in turn will enhance carriers’ ability to ensure that calls are being completed properly. This enhanced ability is of value in addressing concerns about rural call completion. The Commission has recognized problems in completing calls to rural areas, as well as concerns about the quality of service when calls are completed.⁴⁷ To help remedy these issues, the Commission now requires certain long-distance service providers, including interconnected VoIP providers in some cases, to record, retain, and report on call attempts to rural areas.⁴⁸ The Commission determined that these requirements will help providers and regulators identify the source of problems and take corrective action.⁴⁹ We expect that interconnected VoIP provider use of numbers obtained directly from the numbering administrators, rather than through carrier partners, will enable more expedient troubleshooting of problematic calls to rural Local Exchange Carriers (LECs) that may originate from interconnected VoIP providers, as well as enabling greater visibility into number utilization.

17. The record also reflects that permitting interconnected VoIP providers to obtain numbers directly from the Numbering Administrators will improve competition and benefit consumers. For example, Flowroute asserts that direct access will “increase efficiency and facilitate increased choices for American consumers.”⁵⁰ Vonage maintains that allowing interconnected VoIP providers to obtain numbers will improve competition in the voice services market,⁵¹ broadening the options for consumers and reducing costs by eliminating the middleman for telephone numbers.⁵² Vonage asserts that, as a result of the competitiveness of the voice market, “this savings will be passed directly to consumers in the form of reduced prices, improved service, and additional features.”⁵³ Similarly, VON argues that “easier and less costly access to numbers will allow VoIP providers to more vigorously compete in the voice services market, which can be expected to result in lower prices for consumers,” and the “wider variety of creative services developed and offered as a result of allowing direct access to numbers will lead to public benefits in the form of greater and more meaningful choices.”⁵⁴ The record demonstrates that to the

⁴⁶ SmartEdgeNet Comments at 5.

⁴⁷ *Rural Call Completion*, WC Docket No. 13-39, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 16154 (2013) (*Rural Call Completion Order and NPRM*).

⁴⁸ *See id.* at 16164, para. 19 n.56, 16174-77, paras. 40-47.

⁴⁹ *See id.* at 16155, paras. 1-2, 16164, para. 19.

⁵⁰ Flowroute Comments at 2. Flowroute is a self-described provider of IP-enabled telephone services.

⁵¹ *See* Vonage Comments at 1. Vonage notes that Congress recognized the importance of telephone numbers to competition when it mandated that numbers be made “available on an equal basis” in the Telecommunications Act of 1996. The Commission has a long history of vindicating this statutory goal, and has removed obstacles to competitive entry by mandating nondiscriminatory access for competitive LECs, Commercial Mobile Radio Service (CMRS) providers, and others. *Id.*

⁵² *See id.* at 8; *see also Direct Access NPRM*, 26 FCC Rcd at 5851, para. 14 n.52 (citing Vonage’s assertion that moving to IP interconnection will reduce its costs by allowing Vonage to reduce its reliance on wholesale-third party networks); AT&T Comments at ii (noting that interconnected VoIP providers want to “provide telephone numbers to their customers in the most efficient and cost-effective way possible”).

⁵³ Vonage Comments at 8-9; *see also* SmartEdgeNet Comments at 2-5 (asserting that removal of legacy regulatory barriers, as proposed in the *Direct Access NPRM*, will enable interconnected VoIP providers to move beyond “expensive and inefficient arrangements with telecommunications service providers” and “lower costs and prices, and increase interconnected VoIP providers’ operational flexibility”); Vonage Apr. 11, 2014 *Ex Parte* Letter at 2 (explaining that lower costs also generate indirect consumer benefits by supporting further funding of new product development).

⁵⁴ VON Comments at 3. Millicorp agrees that authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators will reduce customer costs, explaining that direct access to numbers will prevent it from having to purchase Primary Rate Interface services from competitive LECs simply to obtain

(continued...)

extent that authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators may facilitate direct IP interconnection, it will also facilitate deployment of advanced services such as HD voice.⁵⁵

18. Further, we find, based on the record, that to the extent permitting interconnected VoIP providers to obtain numbers directly from the Numbering Administrators may also facilitate direct IP interconnection, “[t]his will result in the expansion of the broadband infrastructure necessary to support VoIP, and will further the Commission’s goals of accelerating broadband deployment and ensuring that more people have access to higher quality broadband service.”⁵⁶

19. We also find that authorizing interconnected VoIP providers to request numbers directly from the Numbering Administrators will eliminate unnecessary inefficiencies and associated expenses.⁵⁷ We further are persuaded that having a presence in the routing guide (the LERG) may encourage VoIP interconnection⁵⁸ and lead to enhanced innovation.⁵⁹ We anticipate, based on the record, that authorizing direct access to numbers for interconnected VoIP providers will promote VoIP interconnection.⁶⁰ Finally,

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numbers. According to Millicorp, eliminating this added cost could increase its ability to compete with traditional telephony providers and decrease the cost of providing VoIP services to customers. *See Direct Access NPRM*, 26 FCC Rcd at 5852, para. 15 n.59 (citing Millicorp Petition at 3).

⁵⁵ VON Comments at 4 (maintaining that by facilitating VoIP interconnection, “direct access will eliminate the need for certain protocol conversions necessary for using PSTN interconnections, which will enhance the quality of voice service”); Vonage Comments at 5-6 (asserting that direct VoIP interconnection would allow interconnected VoIP providers to deliver calls in end-to-end IP, which would enhance call quality by eliminating quality loss through conversion from IP to TDM and back to IP, and that direct interconnection for interconnected VoIP providers could also help minimize unnecessary duplication of switching facilities and the associated costs to the ultimate consumer).

⁵⁶ VON Comments at 4; *id.* (“As demand for new VoIP services increases and the associated costs of providing these services decline, providers will have greater incentive to expand their offerings to new areas.”). *See also* 47 U.S.C. § 1302(a); *Verizon v. FCC*, 740 F.3d 623, 644 (D.C. Cir. 2014) (holding that “the Commission [had] more than adequately supported and explained its conclusion that edge provider innovation leads to the expansion and improvement of broadband infrastructure”); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry, 30 FCC Rcd 1375, 1451, para. 131 (2015) (*2015 Broadband Progress Report*).

⁵⁷ We expect interconnected VoIP providers will continue to use carrier partners in some instances. For example, in areas where the interconnected VoIP provider does not have many customers and thus does not need a block of numbers, it may obtain numbers through a partner rather than directly from a number administrator. This Order does not prohibit those partner relationships.

⁵⁸ For example, Vonage states that, during the trial, it concluded an agreement for direct VoIP interconnection with Verizon and had moved negotiations for direct VoIP interconnection agreements forward with other providers. Vonage Jan. 13, 2014 *Ex Parte* Letter at 1. Letter from Brita D. Strandberg, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 *et al.*, at 1 (filed Jan. 13, 2014) (Vonage Jan. 13, 2014 *Ex Parte* Letter).

⁵⁹ *See supra* note 55.

⁶⁰ The Commission previously found that “IP interconnection between providers . . . is critical” to the widespread adoption of IP networks. *USF/ICC Transformation Order*, 26 FCC Rcd at 18044, para. 1010; *see also Technology Transitions Order*, 29 FCC Rcd 1433 (acknowledging the importance of modern communications networks and transitioning to an all-IP network); Comcast Comments at 2; Vonage Comments at 3-5; Vonage Reply at 6-7; Vonage Apr. 11, 2014 *Ex Parte* Letter at 2.

we observe that permitting interconnected VoIP providers to access numbers directly is consistent with the recognized movement toward an all-IP network.⁶¹

B. Implementation of Direct Access to Numbers for Interconnected VoIP Providers

20. As discussed above, Commission rules require an entity requesting numbering resources to demonstrate that it is “authorized” to provide service in the area for which it is requesting telephone numbers.⁶² Telecommunications carriers are typically required to provide either (1) a Commission license or (2) a CPCN issued by a state regulatory commission in order to obtain numbering resources from the Numbering Administrators. Neither of these authorizations is typically available to interconnected VoIP providers, because state commissions may lack jurisdiction to certify VoIP providers and they are not eligible for a Commission license.⁶³ Also, the Commission has preempted state entry regulation of certain interconnected VoIP services to the extent that it interferes with important federal objectives.⁶⁴ The Commission thus sought comment in the *Direct Access NPRM* on what, if any, documentation interconnected VoIP providers should be required to show in order to be eligible to obtain telephone numbers directly from the Numbering Administrators,⁶⁵ and on specific processes by which an interconnected VoIP provider could demonstrate that it should be eligible to obtain numbers from the Numbering Administrators.⁶⁶

21. Today, we establish a new process by which an interconnected VoIP provider without a state certification can obtain a Commission authorization to demonstrate to the Numbering Administrators that it is authorized to provide service under our rules in order to obtain numbers directly from them. We also set forth the conditions that an interconnected VoIP provider obtaining Commission authorization must comply with in order to be eligible to obtain direct access to numbers. As a general matter, we impose on interconnected VoIP providers the same requirements to which carriers are subject. In some respects, however, we impose unique conditions of access on interconnected VoIP providers obtaining a Commission authorization, reflecting the particular circumstances of interconnected VoIP providers, including that (1) interconnected VoIP providers generally receive neither state certification nor a federal license before initiating service, and (2) nomadic interconnected VoIP service need not be tied to a

⁶¹ See generally *Technology Transitions Order*, 29 FCC Rcd 1433; *Copper Retirement NPRM*, 29 FCC Rcd 14969. The Commission has identified three key technology transitions that significantly affect customers: (1) the transition of switched voiced services from legacy TDM and Signaling System No. 7 (SS7) networks to Session Initiation Protocol (SIP)/IP networks; (2) the transition of TDM-based switched voice services to interconnected VoIP services that rely on SIP/IP networks, and relatedly the advent of Voice over LTE (VoLTE) services that will soon be widely available on LTE wireless networks; and (3) the change in the physical layer of last-mile technology, in particular from twisted pairs of copper wire to fiber optics cable, co-axial cable, and wireless technologies. See *Technology Transitions Order*, 29 FCC Rcd at 1440, paras. 16-18; *Copper Retirement NPRM*, 29 FCC Rcd at 14973, n.16.

⁶² 47 C.F.R § 52.15(g)(2)(i).

⁶³ See *Direct Access NPRM*, 28 FCC Rcd at 5854, para. 20; see also, e.g., Letter from Randall B. Lowe, Counsel to SmartEdgeNet, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200 (filed June 26, 2012) (stating that at least 24 jurisdictions have precluded their utility commissions from regulating VoIP service, including issuing CPCNs); *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7613, n.178 (2000) (“[A]ll wireless carriers seeking to use spectrum to provide service in particular geographic areas must be licensed in those areas, under Title III of the Communications Act, by the Commission.”).

⁶⁴ See *Petition of Vonage Holdings Corporation for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 04-267, Memorandum Opinion and Order, 19 FCC Rcd 22404 (2004), *aff’d sub nom. Minnesota Pub. Utils. Comm’n v. FCC*, 483 F.3d 570 (8th Cir. 2007).

⁶⁵ The Commission noted in the *Direct Access NPRM* that the Bureau, in establishing a permanent solution for the administration of p-ANI codes, encountered a similar issue. *Direct Access NPRM*, 28 FCC Rcd at 5854, para. 20.

⁶⁶ *Id.* at 5854, paras. 20-21.

particular geographic location.⁶⁷ These conditions also reflect our understanding of the demand for numbers today, and the ways in which numbering resources may be strained. We find that the terms and conditions set forth below appropriately reflect the unique circumstances that pertain to interconnected VoIP providers and are designed to expand the type of entities that can obtain numbers without unduly straining that limited resource.

1. Requirements to Obtain Commission Authorization

22. We first address what form of documentation interconnected VoIP providers must submit to the Numbering Administrators in order to demonstrate that they have the authority to provide service within specific areas. Among our policy goals are implementing requirements to counteract number exhaust and ensure continuance of efficient number utilization, and providing adequate safeguards to prevent bad actors from gaining direct access to numbers. The extent to which permitting interconnected VoIP providers' direct access to numbers could exacerbate number exhaust has not been determined, largely because direct access would to some extent replace, rather than supplement, indirect access by interconnected VoIP providers. We recognize, however, that there are circumstances in which direct access may increase number exhaust within specific geographic areas, and our goal is to address these circumstances. We conclude that the most appropriate documentation to satisfy the required evidence of authority to provide service for interconnected VoIP providers that have not obtained state certification—and to meet our stated policy goals of counteracting number exhaust and preventing bad actors from gaining direct access—is an authorization issued by the Commission.⁶⁸ We therefore require all interconnected VoIP providers without a state certification to obtain Commission authorization prior to filing their initial request for numbers with a Numbering Administrator. This nationwide authorization will fulfill the requirement under the Commission's rules to provide evidence of authorization to provide service.⁶⁹ We direct and delegate authority to the Wireline Competition Bureau to implement and maintain the authorization process.⁷⁰ Once an interconnected VoIP provider has Commission authorization to obtain numbers, it may request numbers directly from the Numbering Administrators.⁷¹

23. This process is specifically designed to assess the eligibility of interconnected VoIP providers to obtain numbers from a Numbering Administrator. We find that the process we establish today will provide a uniform, streamlined process while also ensuring that the integrity of our numbering system is not jeopardized. The process also provides an opportunity for states to offer their unique perspective regarding numbering resources within their states, while acting consistent with national numbering policy.

24. As part of the Commission authorization process, the applicant must:

- comply with applicable Commission rules related to numbering, including, among others, numbering utilization and optimization requirements (in particular, filing NRUF

⁶⁷ In this way, nomadic interconnected VoIP service is similar to mobile service, but distinct from fixed telephony service.

⁶⁸ See, e.g., AT&T Comments at 3 (asserting that the Commission should provide an alternative process whereby IP-enabled providers can demonstrate that they need, can deploy, and will properly use numbering resources); COMPTTEL Comments at 13 (asserting the Commission needs to maintain the certification requirement of section 52.15(g)(2)(i)); Level 3 Comments at 3.

⁶⁹ See 47 C.F.R. § 52.15(g)(2)(i).

⁷⁰ This Report and Order's delegation of authority to the Wireline Competition Bureau is limited to the specific delegations made in herein. Unless otherwise within the scope of the Bureau's delegated authority, matters pertaining to the process for authorizing direct access to numbers for interconnected VoIP providers will be decided by the full Commission. See *infra* paras. 38, 40, and 53.

⁷¹ Once an interconnected VoIP provider obtains Commission authorization, we do not require it to notify the Commission of ongoing requests for numbers.

Reports);⁷² comply with guidelines and procedures adopted pursuant to numbering authority delegated to the states; and comply with industry guidelines and practices applicable to telecommunications carriers with regard to numbering;⁷³

- file requests for numbers with the relevant state commission(s) at least 30 days before requesting numbers from the Numbering Administrators;⁷⁴
- provide contact information for personnel qualified to address issues relating to regulatory requirements, compliance, 911, and law enforcement;⁷⁵
- provide proof of compliance with the Commission’s “facilities readiness” requirement in section 52.15(g)(2) of the rules;
- certify that the applicant complies with its Universal Service Fund (USF) contribution obligations under 47 C.F.R. part 54, subpart H, its Telecommunications Relay Service (TRS) contribution obligations under 47 C.F.R. § 64.604(c)(5)(iii), its NANP and local number portability (LNP) administration contribution obligations under 47 C.F.R. §§ 52.17 and 52.32, its obligations to pay regulatory fees under 47 C.F.R. § 1.1154, and its 911 obligations under 47 C.F.R. part 9; and
- certify that the applicant has the requisite technical, managerial, and financial capacity to provide service. This certification must include the name of the applicant’s key management and technical personnel, such as the Chief Operating Officer and the Chief Technology Officer, or equivalent, and state that none of the identified personnel are being or have been investigated by the Commission or any law enforcement or regulatory agency for failure to comply with any law, rule, or order.

We explain more fully these requirements below.

25. We find that the measures outlined above will ensure that interconnected VoIP providers are able to obtain numbers with minimal burden or delay, while simultaneously preventing providers from obtaining numbers without first demonstrating that they can deploy and properly utilize those resources. Requiring commitments to comply with the Commission’s number utilization and optimization rules and to file 30 day notices of intent to request numbers with the relevant state commission before making the request with the Numbering Administrators will help to meet our goal of efficient number utilization. In addition, requiring proof of compliance with the Commission’s facilities readiness requirement will ensure that only interconnected VoIP providers that are prepared to provide service can gain direct access to numbers. We conclude that authorization by a state or the Commission is necessary to protect against number exhaust, as well as to ensure competitive neutrality among traditional telecommunications carriers and interconnected VoIP providers in the competitive market for voice services.⁷⁶ As such, we reject assertions by commenters that a documentation requirement is unnecessary, and that interconnected VoIP providers should not be required to prove their eligibility and capability to provide service prior to

⁷² See 47 C.F.R. Part 52.

⁷³ See, e.g., AT&T Comments at 3-4; COMPTTEL Comments at 10; Pennsylvania PUC Comments at 6-7.

⁷⁴ Although we establish a process to grant interconnected VoIP providers a blanket authorization to allow them to request numbers anywhere in the country, we strongly encourage applicants to submit a list of the states in which they intend to request numbers as an attachment to their authorization applications.

⁷⁵ *C.f.*, e.g., Wisconsin PSC Comments at 6 (stating that an interconnected VoIP provider should be required to register its contact information with the relevant state commission prior to requesting numbers for that state).

⁷⁶ We observe that the authorization process is also designed to ensure that today’s decision to allow interconnected VoIP providers to request and obtain numbers directly from the Number Administrators will not increase risks to public safety or increase the vulnerability of Numbering Administrators.

receiving number authorization.⁷⁷ We also find that the process set forth above is better targeted to demonstrating authorization to provide service than reliance on the filing of an FCC Form 499-A or 477 by an interconnected VoIP provider.⁷⁸ Those forms do not demonstrate commitments to comply with the Commission's rules and specific numbering requirements or reflect that an applicant has the appropriate technical, managerial, and financial capacity to provide service.⁷⁹ Further, as a practical matter, a new interconnected VoIP provider seeking direct access to numbers as part of launching a new service may not have a Form 477 on file at the time that it seeks to obtain numbers.⁸⁰

26. The Pennsylvania Public Utility Commission proposed that the Commission create a formal process to allow states to refer concerns about the numbering practices of any provider to the Commission and the NANPA, and that the Commission also require states to develop and implement their own review and challenge processes.⁸¹ We do not adopt any new processes, or require states to develop and implement their own review and challenge processes in instances where the Commission, rather than the state, is responsible for certification.⁸² Section 52.15(g)(5) of the Commission's rules currently grants the states access to service providers' applications for telephone numbers.⁸³ Armed with this information, states are able to contact the Numbering Administrators directly about concerns with number requests for their states. And states may, of course contact the Commission or the Bureau to discuss any specific concerns. We find that the processes already in place, combined with the advance notice of number requests we require interconnected VoIP providers to provide to state commissions,⁸⁴ ensure the integrity of the number assignment process without needlessly blocking or delaying number assignments to interconnected VoIP providers.

a. Compliance with Number Administration Rules and Guidelines

27. Commission rules and industry practice ensure and facilitate effective administration of the NANP and prevent number exhaust. As such, it is important that we make clear that interconnected VoIP providers that obtain a Commission authorization to enable direct access to numbering resources will be subject to the Commission's numbering rules⁸⁵ and industry guidelines and practices for numbering applicable to telecommunications carriers. These requirements include, *inter alia*, filing

⁷⁷ See SmartEdgeNet Comments at 16 (arguing that self-certification, similar to the blanket authority available for all entities that seek to provide domestic telecommunications services, should be sufficient as a practical matter).

⁷⁸ See *Direct Access NPRM*, 28 FCC Rcd at 5854-55, para. 21; Flowroute Comments at 5-6 (asserting that FCC Form 499-A, FCC Form 477, and authorizations under section 214 of the Act, either standing alone or in some combination, should be sufficient documentary evidence that an interconnected VoIP provider is authorized to provide services); Vonage Comments at 14 (suggesting that in the place of using Form 477, the Commission consider the use of Form 499-A, which requires identifying information about a provider, as well as information about where the provider will or does provide service); SmartEdgeNet Comments at 17-18 (asserting that proof that an interconnected VoIP provider has obtained an FCC Registration Number should be sufficient documentation).

⁷⁹ See NTCA Comments at 5; Level 3 Comments at 2-3.

⁸⁰ See Vonage Comments at 12.

⁸¹ See Pennsylvania PUC Comments at 18-19.

⁸² See, e.g., Pennsylvania PUC Comments at 18-19; Michigan PSC Comments at 3-4 (recommending that the Commission delegate authority to the states to license or certify interconnected VoIP providers to prove that the providers have the necessary capabilities to provide service, or alternatively, give states the option to designate a VoIP provider as an "eligible number recipient" to allow better communication between the states and the Commission).

⁸³ See 47 C.F.R. § 52.15(g)(5).

⁸⁴ See *supra* Section III.B.1.b.

⁸⁵ See 47 C.F.R. Part 52.

NRUF reports,⁸⁶ complying with Commission requirements to obtain additional numbers in a rate center,⁸⁷ and adhering to the numbering authority delegated to state commissions for access to data and number reclamation.⁸⁸ The Commission required participants in the technical trial to comply with specific number utilization and optimization requirements, including abiding by the numbering authority delegated to state commissions and filing NRUF reports, as well as industry guidelines and practices.⁸⁹ These requirements contributed to the overall success of the trial by allowing the Commission, states, and Numbering Administrators to monitor the utilization of the number resources involved. Because of this experience, and for the reasons discussed below, we conclude that these requirements are a necessary component of interconnected VoIP providers' obtaining access to numbers permanently. Accordingly, we require interconnected VoIP providers that receive Commission authorization to obtain telephone numbers directly to comply with each of the Commission's number administration requirements,⁹⁰ including any state requirements pursuant to numbering authority delegated to the states by the Commission.⁹¹ Moreover, interconnected VoIP providers relying on a Commission authorization to obtain numbers directly must also comply with industry guidelines and practices applicable to telecommunications carriers for numbering.⁹²

28. Interconnected VoIP providers' compliance with number administration requirements is key to the Commission's allowing their direct access to numbers, and no commenter argued that these requirements should not apply to them.⁹³ As we discuss below, failure to comply with these obligations could result in revocation of the Commission's authorization, the inability to obtain additional numbers pending that revocation, reclamation of un-assigned numbers already obtained directly from the Numbering Administrators, or enforcement action.⁹⁴ Requiring interconnected VoIP providers that obtain numbers directly from the Numbering Administrators to comply with the same numbering requirements and

⁸⁶ All carriers that receive telephone numbers from the Numbering Administrators must file NRUF reports semi-annually of their current inventory of telephone numbers. *See* 47 C.F.R. § 52.15(f)(5)–(6). NRUF data are used to forecast the exhaust date for each Numbering Plan Area, or area code, as well as the exhaust date for the entire NANP.

⁸⁷ *See* 47 C.F.R. § 52.15(g)(3).

⁸⁸ *See* 47 C.F.R. Part 52. The Commission has delegated state commissions authority over number reclamation, 47 C.F.R. § 52.15(i), and given them access to the semi-annual NRUF reports, as well as carriers' applications for initial and additional number resources. *See* 47 C.F.R. §§ 52.15(f)(7), (g)(5). State commissions' access to these data permits them to discuss with carriers their need for numbers and to object to number requests. The Commission has also delegated to state commissions the authority to affirm or overturn a Numbering Administrator's decision to withhold numbers from a carrier, and to implement mandatory thousands-block number pooling. *See* 47 C.F.R. § 52.15(g)(3)(B)(iv), (g)(4). Section 52.19 addresses the state roles in area code relief. 47 C.F.R. § 52.19.

⁸⁹ *See Direct Access NPRM*, 28 FCC Rcd at 5883, para. 105. The Commission also required participants to comply with a number of conditions recommended by the states. *See supra* para. 10 and *infra* Section III.B.3.

⁹⁰ *See* 47 C.F.R. Part 52; *Direct Access NPRM*, 28 FCC Rcd at 5855, para. 22 (proposing to impose these requirements if the Commission grants interconnected VoIP providers direct access to numbers).

⁹¹ *See supra* note 88.

⁹² Such practices would include, for example, maintaining the original rate center designation of all numbers in their inventory, in the same manner that wireline and wireless carriers do today. *See* California PUC Comments at 18-19; Pennsylvania PUC Comments at 20; *but see* AT&T Comments at 15 (noting that it would object to this requirement when TDM is no longer the default communications format).

⁹³ *See, e.g.,* CenturyLink Comments at 6 (stating that being able to directly obtain phone numbers and assign them to customers carries with it rights and responsibilities that should apply equally).

⁹⁴ *See infra* Section III.B.4.

industry guidelines as carriers will help alleviate many concerns about telephone number exhaust,⁹⁵ and will help ensure competitive neutrality among providers of voice services.⁹⁶ Further, by imposing number utilization and reporting requirements directly on interconnected VoIP providers, we expect to have greater visibility into number utilization. For example, under our current rules, a service provider obtaining numbers directly from the Numbering Administrators must file Months-to-Exhaust Worksheets showing that it has used at least 75 percent of its numbering resources in a rate center before obtaining additional numbers in that rate center.⁹⁷ Currently, most interconnected VoIP providers' utilization information is imbedded in the NRUF data of the carrier from which it purchases a Primary Interface Line.⁹⁸ Under our new requirement, the NANPA will receive NRUF reports directly from the interconnected VoIP provider that is actually serving the end user customer.⁹⁹ This increased visibility will allow the Commission to better monitor, and take steps to limit, number exhaust.¹⁰⁰

29. We note also that we are requiring interconnected VoIP providers applying for direct access to numbers to certify that they comply with their existing USF contribution obligations under 47 C.F.R. part 54, subpart H, TRS contribution obligations under 47 C.F.R. § 64.604(c)(5)(iii), NANP and LNP administration contribution obligations under 47 C.F.R. §§ 52.17 and 52.32, obligations to pay regulatory fees under 47 C.F.R. § 1.1154, and 911 obligations under 47 C.F.R. part 9. Requiring this certification of compliance with existing rules further ensures that the applicant is a company in good standing.

30. *Intermediate Numbers.* Among other things, NRUF reporting requires carriers to report how many of their numbers have been designated as “assigned” or “intermediate.” This designation affects the utilization percentage—the percentage of the total numbering inventory that is “assigned” to customers for use—of the reporting carrier.¹⁰¹ An “intermediate” number is one that is made available to a carrier or non-carrier entity from another carrier, but has not necessarily been assigned to an end-user or customer by the receiving carrier or non-carrier entity.¹⁰² An “assigned” number is one that has been

⁹⁵ See *Direct Access NPRM*, 28 FCC Rcd at 5855, para. 22; see also Windstream Reply at 7; SmartEdgeNet Comments at 5, 12-13 (asserting that authorizing interconnected VoIP providers to obtain telephone numbers directly will not exacerbate number exhaust as telephone number usage by landline providers will decline and interconnected VoIP, a substitute for traditional telephone service, will not create a significant demand for new telephone numbers.).

⁹⁶ See, e.g., COMPTTEL Comments at 15 (asserting that the Commission should examine what modifications are necessary to ensure equitable treatment among all competitive providers); Level 3 Comments at 4 (asserting that proposed requirements should be judged by whether they are competitively neutral).

⁹⁷ See 47 C.F.R. §§ 52.15(g)(3), (h).

⁹⁸ See *Direct Access NPRM*, 28 FCC Rcd at 5883–84, para. 105, n.259.

⁹⁹ See *id.* at 5856, para. 22; see also Vonage Comments at 8 (explaining that under the existing regime, numbering partners' utilization reports reflect *only* their use of numbers—not their interconnected VoIP provider customers' use; thus, a carrier's report could include numbers for multiple interconnected VoIP providers that obtain numbers on a wholesale basis from the carrier—numbers that may not actually be in use by those interconnected VoIP providers and an interconnected VoIP provider's numbers could be spread among multiple carriers); VON Comments at 3-4; see also Letter from Brita D. Strandberg, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200, at 2 (filed July 31, 2012); Letter from Brita D. Strandberg, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200, at 2 (filed Mar. 21, 2012).

¹⁰⁰ See *Direct Access NPRM*, 28 FCC Rcd at 5856, para. 22; Comcast Comments at 6; Vonage Comments at 16.

¹⁰¹ The numbering utilization level is calculated by dividing all “assigned numbers by the total numbering resources in the applicant's inventory and multiplying the result by 100.” See 47 C.F.R. § 52.15(g)(3)(ii).

¹⁰² 47 C.F.R. § 52.15(f)(v) (“*Intermediate numbers* are numbers that are made available for use by another telecommunications carrier or non-carrier entity for the purpose of providing telecommunications service to an end user or customer.”).

assigned to a specific end-user or customer.¹⁰³ Only “assigned” numbers are taken into account in the numerator of the utilization ratio when determining when a carrier or, once these rules take effect, an interconnected VoIP provider can obtain additional numbers;¹⁰⁴ thus, there is an incentive for carriers and interconnected VoIP providers to categorize as “assigned” as many numbers as possible.

31. As discussed in the *Direct Access NPRM*, when a number is allocated to a carrier and the carrier assigns that number to a wholesale customer, such as an interconnected VoIP provider, section 52.15(f)(1)(v) of the Commission’s rules requires that these numbers be reported as “intermediate” on the carrier’s NRUF report until the numbers have been assigned to a retail end user. In practice, however, these numbers are often identified as “assigned,” whether or not the interconnected VoIP provider has a retail end-user customer for the number. In the *Direct Access NPRM*, the Commission sought comment on how to revise the definition of “intermediate numbers” or “assigned numbers” to ensure consistency among all reporting providers.¹⁰⁵

32. Based on the record before us and the Commission’s understanding that interpretation questions have arisen in certain respects regarding section 52.15(f)(1)(iii) of the rules,¹⁰⁶ we conclude that it is necessary to clarify that numbers provided to carriers, interconnected VoIP providers, or other non-carrier entities by numbering partners should be reported as “intermediate,” and do not qualify as “end users” or “customers” as those terms are used in the definition of “assigned numbers” in section 52.15(f)(1)(iii) of the Commission’s rules.¹⁰⁷ This clarification is necessary in order to provide consistency and accuracy in number reporting and to limit telephone number exhaust. The record indicates that carriers are not reporting the use of numbers under the intermediate category consistently,¹⁰⁸ and that there are widely differing interpretations of the definition of intermediate numbers and the requirement to report numbers in the intermediate category.¹⁰⁹ For example, some carriers, whether they hold intermediate numbers in their inventories or allocate them to another service provider, treat all of their intermediate numbers as assigned for reporting purposes.¹¹⁰ Uniform definitions for number reporting allow the Commission to monitor individual carriers and their use of numbering resources to ensure efficient use of those resources and that the NANP is not prematurely exhausted. To achieve these goals, the Commission must obtain consistent, accurate, and complete reporting from carriers. Allowing carriers to continue to report numbers transferred to a carrier partner as assigned, instead of intermediate,

¹⁰³ 47 C.F.R. § 52.15(f)(iii) (“Assigned numbers are numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use, or numbers not yet working but having a customer service order pending”).

¹⁰⁴ See *supra* note 101.

¹⁰⁵ *Direct Access NPRM*, 28 FCC Rcd at 5856, para. 23.

¹⁰⁶ See, e.g., California PUC Comments at 10-11 (explaining that it has long expressed its frustration with carrier treatment of intermediate numbers and recommending eliminating the “intermediate” category, or defining “end user” for numbering purposes as the retail end user); AT&T Comments at 6 (noting that as early as 2002, the industry had already recognized that carriers seeking to apply the Commission’s number reporting directives were not all reporting “intermediate numbers” and “assigned numbers” in the same way); Michigan PSC Comments at 6 (recommending that the definitions of intermediate and assigned numbers be amended in a way that allows for proper identification of intermediate numbers); Pennsylvania PUC Comments at 15 (supporting revised rules that eliminate the wholesale partnering practices engaged in intermediate numbering). See also the North American Numbering Council (NANC) report and recommendation informing the Commission that industry members find the references to “intermediate numbers” and “inventory” in the Commission orders and rules to be confusing and conflicting. Letter from Robert Atkinson, Chair, NANC, to William Maher, Chief, WCB (dated Jan. 29, 2003).

¹⁰⁷ 47 C.F.R. § 52.15(f)(1)(iii).

¹⁰⁸ AT&T Reply at 7.

¹⁰⁹ California PUC Comments at 10-11.

¹¹⁰ *Id.* at 11.

would ultimately defeat our goals by gathering inaccurate information as to how many numbers are actually assigned to end-user customers.¹¹¹ Thus, for purposes of Part 52 of our rules, we make clear that the terms “end users” and “customers” do not include telecommunications carriers and non-carrier voice or telecommunication service providers. While this clarification of our rules may be less critical after our action taken today, as noted elsewhere in this Order there will be instances in which interconnected VoIP providers continue to use carrier partners.¹¹² Therefore, it is still important to clarify the definition of “assigned” number in our rules.

b. 30-day Notice Requirement

33. In the *SBCIS Waiver Order*, the Commission required SBCIS, now AT&T Internet Services, to file any requests for numbers with the Commission and the relevant state commissions at least 30 days prior to requesting numbers from the Numbering Administrators.¹¹³ The 30-day notice period has allowed the Commission and states to monitor SBCIS’s number utilization and to take measures to conserve resources, if necessary, such as determining which rate centers are available for number assignments.¹¹⁴ In the *Direct Access NPRM*, the Commission sought comment on imposing this requirement on all interconnected VoIP providers that obtain numbers, asking whether this requirement actually furthers the Commission’s goal of ensuring number optimization.¹¹⁵ The Commission also sought comment on whether it should adopt a rule providing an opportunity for states whose commissions lack authority to provide certification for interconnected VoIP service to be given a formal opportunity to object to the assignment of numbers to these providers.¹¹⁶

34. Based on our experience with SBCIS/AT&T Internet Services filings and the record in this proceeding, we require interconnected VoIP providers to file notices of intent to request numbers with relevant state commissions, on an on-going basis, at least 30 days prior to requesting numbers from the Numbering Administrators. We agree with commenters that providing 30-days’ notice to state commissions contributes to the efficient utilization of our numbering resources.¹¹⁷ These filings will allow the states to monitor number usage and raise any concerns about the request with the service provider, the Commission, and the Numbering Administrators. Having 30-days’ notice of a number request allows state commissions to advise interconnected VoIP providers as to which rate centers have excess blocks of numbers available. This notice period also gives state commissions the opportunity to determine, as they currently do with carriers, whether the request is problematic for any reason, such as the provider’s failure to submit timely NRUF reports or meet the utilization threshold necessary to obtain additional numbers.¹¹⁸

35. We do not, however, require 30-days’ notice to be provided to the Commission, as required in the *SBCIS Waiver Order*. While this information is used by the states to, among other things, determine if the numbering request would be problematic in that state, the Commission will have access to this information once it is made available to the Numbering Administrators. Therefore, we conclude that it is unnecessary to require interconnected VoIP providers to give the Commission a separate 30-days’ notice of their intent to request numbers from the Numbering Administrators.

¹¹¹ Michigan PSC Comments at 6; Pennsylvania PUC Comments at 15.

¹¹² Cf. *supra* note 57 and *infra* para. 44.

¹¹³ *Direct Access NPRM*, 28 FCC Rcd at 5858, para. 31.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.* at 5855, para. 21.

¹¹⁷ California PUC Comments at 16-17.

¹¹⁸ See, e.g., Joint State Comments at 7-8.

c. “Facilities Readiness” Requirement

36. The Commission’s rules require that before obtaining numbers, a provider must demonstrate that it “is or will be capable of providing service within sixty (60) days of the numbering resources activation date”—what we call “facilities readiness.”¹¹⁹ In the *SBCIS Waiver Order*, the Commission found that in general, SBCIS should be able to satisfy the requirement using the same type of information submitted by carriers, such as an interconnection agreement approved by a state commission. The Commission noted, however, that if SBCIS was unable to provide a copy of such agreement, it could submit evidence that it had ordered interconnection service pursuant to a tariff that is generally available to other providers of IP-enabled services.¹²⁰ In the *Direct Access Trial Report*, interconnected VoIP providers were permitted to demonstrate “facilities readiness” by showing the combination of an agreement between the interconnected VoIP provider and its underlying carrier and an interconnection agreement between that underlying carrier and the relevant incumbent carrier.¹²¹

37. Based on our experience with SBCIS/AT&T Internet Services and the record in this proceeding, we require interconnected VoIP providers that request telephone numbers from the Numbering Administrators to comply with the “facilities readiness” requirement in section 52.15(g)(2) of our rules, consistent with the requirements imposed on other providers of competitive voice services. We agree with commenters that an important aspect of direct access is that calls are interconnected with the Public Switched Telephone Network (PSTN) and terminated properly.¹²² A key difference between facilities readiness compliance with section 52.15(g)(2)(ii) in the context of interconnected VoIP providers seeking to obtaining numbers and in other contexts where the rule applies is that an interconnected VoIP provider seeking to access numbers directly need not have a carrier partner in order to provide service. As such, because the Commission has not classified interconnected VoIP services as telecommunications services or information services, nor has it otherwise addressed the interconnection obligations associated with interconnected VoIP service as a general matter,¹²³ interconnected VoIP providers do not have any clearly established requirement, outside of the facilities readiness compliance context, to interconnect with a carrier that files tariffs.¹²⁴ Therefore, we permit an interconnected VoIP provider that has obtained Commission authorization to request numbers directly to demonstrate proof of facilities readiness by (1) providing a combination of an agreement between the interconnected VoIP provider and its carrier partner and an interconnection agreement between that carrier and the relevant

¹¹⁹ 47 C.F.R. § 52.15(g)(2).

¹²⁰ See *SBCIS Waiver Order*, 20 FCC Rcd at 2962, para. 10; *Direct Access NPRM*, 28 FCC Rcd at 5858, para. 29.

¹²¹ *Direct Access Trial Report*, 29 FCC Rcd at 937, para. 27.

¹²² See, e.g., COMPTTEL Comments at 14; Windstream Reply at 8; AT&T Comments at 10 (advocating that the Commission should permit an applicant to certify that it will use its numbers in universal connectivity, whereby all persons with telephone numbers can reach the applicant’s customers, and conversely, all the applicant’s customers can reach all other persons with telephone numbers); CenturyLink Comments at 10 (suggesting that proof of “facilities readiness” could take the form of certifications of having purchased products pursuant to carrier tariffs or having entered into commercial agreements with carriers for the exchange of traffic or other mechanisms); Level 3 Comments at 6 (agreeing with AT&T’s proposal that what is relevant is whether the provider has access to the PSTN, not whether the provider has obtained services from one carrier serving the area as opposed to another); see also Vonage Comments at 18-19 (supporting a flexible definition of “facilities readiness” that would allow interconnected VoIP providers to demonstrate that they have commercial agreements in place to enable connectivity to the PSTN through alternative marketplace solutions, such as traffic-exchange agreements or an alternative tandem provider, and further stating that the interconnected VoIP provider must also confirm that the partner carrier has the capability to properly route or complete calls).

¹²³ See, e.g., *USF/ICC Transformation Order*, 26 FCC Rcd at 18123-47, paras. 1335-98; tw telecom inc. Petition for Declaratory Ruling Regarding Direct IP-to-IP Interconnection, WC Docket No. 11-119 (filed Jun. 30, 2011).

¹²⁴ The Commission has addressed the application of certain prohibitions on blocking traffic in the context of VoIP services, however. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17903, para. 734, 18028-29, paras. 973-74.

local exchange carrier (LEC), or (2) proof that the interconnected VoIP provider obtains interconnection with the PSTN pursuant to a tariffed offering¹²⁵ or a commercial arrangement (such as a TDM-to-IP or a VoIP interconnection agreement) that provides access to the PSTN.¹²⁶ The interconnected VoIP provider need not demonstrate that the point where it delivers traffic to or accepts traffic from the PSTN is in any particular geographic location so long as it demonstrates that it is ready to provide interconnected VoIP service, which is by definition service that “[p]ermits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.”¹²⁷

2. Procedure for Requesting Commission Authorization

38. In order to streamline the processing of an interconnected VoIP provider’s application for authorization to obtain numbers—called the “Numbering Authorization Application”—we have established a mechanism for these applications within the Commission’s Electronic Comment Filing System (ECFS). We delegate authority to the Bureau to oversee this mechanism and the processing of these applications. The mechanism we have established includes a “Submit a Non-Docketed Filing” module that facilitates filing of these applications into a single docket where all such applications must be filed.¹²⁸ When making its submission, the applicant must select “VoIP Numbering Authorization Application” from the “Submit a Non-Docketed Filing” module within ECFS, or successor online-filing mechanism.¹²⁹ The filing must include the application, as well as any attachments.¹³⁰

¹²⁵ See Bandwidth Comments at 18 (recommending that the Commission retain the requirement that non-carriers meet the “facilities readiness” requirement through publicly filed agreements or tariffed arrangements to prevent ILECs from engaging in discriminatory tactics).

¹²⁶ See Inteliquent, Terminating Services, <http://www.inteliquent.com/voice/Termination-Services.cfm> (last visited Apr. 10, 2015); see also Neutral Tandem Dec. 27, 2011 Public Notice Comments, CC Docket No. 99-200, at 1 (filed Jan. 25, 2012); Neutral Tandem, Inc., d/b/a Inteliquent *USF/ICC Transformation FNPRM* Reply, WC Docket No. 10-90 *et al.*, at n.1.

¹²⁷ 47 U.S.C. § 153(25); 47 C.F.R. § 9.3.

¹²⁸ The Commission may make available other online-filing capabilities to streamline this process. See 47 C.F.R. § 1.49(f)(3).

¹²⁹ All electronic filings must be in an open format, which means machine-readable and made available to the public without restrictions that would impede re-use of the information. See Open Government Directive (Dec. 8, 2009), <http://m.whitehouse.gov/open/documents/open-government-directive>. Files containing text must be formatted to allow electronic searching and/or copying. Non-text filings (e.g., spreadsheets) must be submitted in the format in which they were created. Filers should be certain that documents are not locked or password-protected. If those restrictions are present (e.g., a document is locked), the system may reject the filing, and a party will need to resubmit its document within the filing deadline. The Commission will consider granting waivers to this electronic filing requirement only in exceptional circumstances. See *Amendment of Certain of the Commission’s Part 1 Rules of Practice and Procedure and Part 0 Rules of Commission Organization*, GC Docket No. 10-44, Report and Order, 26 FCC Rcd 1594, 1602, para. 20 & n.61 (2011) (*Part 1 Order*).

¹³⁰ There is an exception to this electronic filing requirement for confidential filings. Consistent with existing Commission electronic filing guidelines, any party asserting that materials filed with an application are proprietary must file with the Commission, using ECFS, a public version of the materials with any proprietary information redacted. See 47 C.F.R. § 0.459(a)(2). The party also must file with the Secretary’s Office an unredacted hard copy version that contains the proprietary information and clearly marks each page, or portion thereof, using bolded brackets, highlighting, or other distinct markings that identify the sections of the filing for which a proprietary designation is claimed. Each page of the redacted and unredacted versions must be clearly identified as the “Public Version” or the “Confidential Version,” respectively. Both versions must be filed on the same day. Parties may serve a copy of the unredacted version on the Wireline Competition Bureau, Competition Policy Division.

39. Bureau staff will first review VoIP Numbering Authorization Applications for conformance with procedural rules.¹³¹ Assuming that the applicant satisfies this initial procedural review, Bureau staff will assign the application its own case-specific docket number and release an “Accepted-For-Filing Public Notice,” seeking comment on the application. The Public Notice will be associated with the docket established for the application. All subsequent filings by the applicant and interested parties related to this application must be submitted via ECFS in this docket. Parties wishing to submit comments addressing the request for authorization should do so as soon as possible, but no later than 15 days after the Commission releases an Accepted-For-Filing Public Notice, unless the public notice sets a different deadline.

40. As part of the CPCN certification process, states generally evaluate the fitness of the entity before granting a CPCN authorizing the entity to provide service in that state. In the case of interconnected VoIP providers that request numbers directly pursuant to a Commission authorization, it falls to the Commission to ensure the fitness of the entity and its principals to administer numbers, ensure that telephone numbers are not stranded, and maintain efficient utilization of numbering resources. On the 31st day after the “Accepted-For-Filing Public Notice” is released, the application will be deemed granted unless the Bureau notifies the applicant that the grant will not be automatically effective. The Bureau may halt this auto-grant process if (1) an applicant fails to respond promptly to Commission inquiries, (2) an application is associated with a non-routine request for waiver of the Commission’s rules, (3) timely-filed comments on the application raise public interest concerns that require further Commission review, or (4) the Bureau determines that the request requires further analysis to determine whether a request for authorization for direct access to numbers would serve the public interest. To enable this process, we also delegate authority to the Bureau to make inquiries and compel responses¹³² from an applicant regarding the applicant and its principals’ past compliance with applicable Commission rules.¹³³

41. Once an interconnected VoIP provider’s Numbering Authorization Application is granted or deemed granted, the applicant can immediately proceed to provide states from which it intends to request numbers the required 30-days’ notice. If the Bureau issues a public notice announcing that the application for authorization will not be automatically granted, the interconnected VoIP provider may not provide 30-days’ notice and obtain numbers until the Bureau announces in a subsequent order or public notice that the application has been granted.¹³⁴ This process strikes a proper balance between expeditiously authorizing interconnected VoIP provider requests for direct access to numbers, while providing an opportunity to consider more fully those requests that raise concerns.

3. Additional Requirements to Obtain Numbers

42. In the *Direct Access NPRM*, the Commission sought comment on the Wisconsin Public Service Commission’s proposal to adopt certain measures that would give state commissions oversight of interconnected VoIP providers that obtain telephone numbers.¹³⁵ Specifically, the Wisconsin PSC recommended the following conditions for direct access: (1) providing the relevant state commission

¹³¹ Bureau staff will check the applicant’s status under the Commission’s “red light rule,” which restricts processing of applications filed by parties with outstanding debts owed to the Commission. See 47 C.F.R. § 1.1910. Bureau staff will also verify that the applicant filed its Form 477 and Form 499 forms, if applicable.

¹³² Any subpoenas issued by the Bureau under this delegation of authority must be issued consistent with the requirements in section 0.291(f) of the rules. See 47 C.F.R. § 0.291(f).

¹³³ We note that, at the Bureau’s discretion, certain past violations may serve as a basis for denial of an application, such as, for example, repeated or egregious violations or instances of fraud or misrepresentation to the Commission.

¹³⁴ See, e.g., 47 C.F.R. § 63.71(c) (establishing a similar process to grant section 214 discontinuance applications allowing for an automatic grant after a specified number of days following the release of a notice to the public).

¹³⁵ *Direct Access NPRM*, 28 FCC Rcd at 5859, para. 34.

with regulatory and numbering contacts when the interconnected VoIP provider requests numbers in that state; (2) consolidating and reporting all numbers under its own unique OCN; (3) providing customers with the ability to access all abbreviated dialing codes (N11 numbers) in use in a state; and (4) maintaining the original rate center designation of all numbers in its inventory. The Commission included these requirements in the Direct Access Trial. As described below, we require interconnected VoIP providers obtaining numbers directly from the Numbering Administrators to provide contact information to the relevant states, and also to request numbers under the interconnected VoIP provider's own OCN. For the reasons discussed below, we decline to adopt the other proposed conditions as requirements for direct access for interconnected VoIP providers.

43. *Providing Contact Information.* During the state certification process, many state commissions obtain contact information from service providers.¹³⁶ Absent a contact information requirement, state commissions may not have accurate contact information for interconnected VoIP providers seeking direct access to numbering resources. In the *Direct Access NPRM*, the Commission sought comment on whether interconnected VoIP providers that obtain direct access to numbers should be required to provide relevant state commissions with regulatory and numbering contacts upon first requesting numbers in that state.¹³⁷ Several state commissions supported this requirement,¹³⁸ while no commenter opposed it.¹³⁹ We agree that providing accurate contact information to state regulators is important. For one thing, we agree that contact information allows state commissions to effectively and most readily address matters relating to regulatory compliance, provision of 911 service, and law enforcement to the extent already authorized.¹⁴⁰ Having accurate contact information will also help state regulators monitor local numbering issues.¹⁴¹ This, in turn, helps the Commission in its overall efforts to conserve numbers. Because of its importance to state commissions and to this Commission, we require interconnected VoIP providers to give accurate regulatory and numbering contact information to the state commission when they request numbers in that state. We further require that interconnected VoIP providers update this information whenever it becomes outdated.

44. *OCN Requirements.* Under the Commission's rules, a carrier must have an OCN in order to obtain numbers from the NANPA.¹⁴² Based on the record we received on this issue, we require each interconnected VoIP provider to use its own unique OCN—as opposed to using the OCN of a carrier affiliate or partner—when obtaining numbers directly from the Numbering Administrators. Requiring each interconnected VoIP provider to use its own unique OCN follows the same procedure required for telecommunications carriers already getting direct access to numbers, which must request numbers using their own unique OCNs. In addition, requiring each interconnected VoIP service provider to show which numbers are in its own inventory—as opposed to in a carrier affiliate's or partner's inventories—will improve number utilization data used to predict number exhaust.¹⁴³ It will also enable states to more easily identify the service providers involved when porting issues arise.¹⁴⁴

¹³⁶ Joint State Comments at 6.

¹³⁷ *Direct Access NPRM*, 28 FCC Rcd at 5859, para. 34.

¹³⁸ California PUC Comments at 18-19; Joint State Comments at 8; Michigan PSC Comments at 4-5; Pennsylvania PUC Comments at 9.

¹³⁹ Hypercube Comments at 9; Vonage Comments at 16-17.

¹⁴⁰ AT&T Comments at 3; Level 3 Comments at 7-8.

¹⁴¹ Joint State Comments at 6; New Jersey Division of Rate Counsel Reply at 9. For example, accurate contact information is essential for state commissions in using their delegated authority to implement number conservation measures, such as safety valve requests and number reclamation. See Pennsylvania PUC Comments at 8.

¹⁴² See 47 C.F.R. § 52.15(g)(4); see also 47 C.F.R. § 52.15(g)(1).

¹⁴³ See Joint State Comments at 13; Pennsylvania PUC Comments at 15.

¹⁴⁴ See Joint State Comments at 12.

45. In addition to requiring each interconnected VoIP provider to have its own OCN, several state commenters assert that as a condition of obtaining numbers directly, each provider should be required to transfer all of the numbers it has obtained from its numbering partners to the interconnected VoIP provider's new OCN.¹⁴⁵ We decline to adopt this condition. Commenters seeking such a condition urged the Commission to adopt it in order to minimize interconnected VoIP providers' opportunities to hoard telephone numbers and to ensure more accurate NRUF reporting by carriers.¹⁴⁶ We do not find that such a requirement is necessary to protect against these harms. As discussed above, we require each interconnected VoIP provider obtaining numbers directly from the Numbering Administrators to comply with the Commission's NRUF reporting requirements.¹⁴⁷ And as we also clarify above, all numbers assigned to interconnected VoIP providers by their numbering partners are to be reported as "intermediate," unless and until such numbers are assigned to ultimate retail end users.¹⁴⁸ We believe that these requirements are sufficient to ensure efficient number utilization by interconnected VoIP providers and their numbering partners.

46. *Customer Access to Abbreviated Dialing Codes.* The Commission currently requires interconnected VoIP providers to supply 911 emergency calling capabilities to their customers and to offer 711 abbreviated dialing for access to telephone relay services.¹⁴⁹ In the *Direct Access NPRM*, the Commission sought comment on the Wisconsin PSC proposal for interconnected VoIP providers to provide customers with the ability to access all N11 numbers in use in a state.¹⁵⁰ In addition, it sought particular comment on how providers of nomadic VoIP service could comply with a requirement to provide access to the locally-appropriate N11 numbers.¹⁵¹ In the *Direct Access Trial*, participants were required to provide consumers with the ability to access N11 numbers in use in a state.¹⁵² State commissions and several other commenters support the proposal for interconnected VoIP providers to provide customers with the ability to access N11 numbers in use in a state.¹⁵³ Vonage does not oppose the proposal that interconnected VoIP providers give subscribers the ability to access N11 numbers in use in a state, insofar as they are standard conditions imposed on any provider with direct access, and provided that such an obligation is dependent on states making available to interconnected VoIP providers

¹⁴⁵ Pennsylvania PUC Comments at 15.

¹⁴⁶ See Joint State Comments at 8.

¹⁴⁷ See *supra* paras. 27-28.

¹⁴⁸ See *supra* para. 32.

¹⁴⁹ See *IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, WC Docket Nos. 04-36, 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10246, para. 1 (2005), *aff'd*, *Nuvio Corp. v. FCC*, 473 F.3d 302 (D.C. Cir. 2006); *IP-Enabled Services*, WC Docket No. 04-36, WT Docket No. 96-198, CG Docket No. 03-123, CC Docket No. 92-105, Report and Order, 22 FCC Rcd 11275, 11296-97, paras. 42-43 (2007).

¹⁵⁰ *Direct Access NPRM*, 28 FCC Rcd at 5859, para. 34. The Commission also sought comment on whether it should require interconnected VoIP providers to comply with N11 code assignments and the technical feasibility of doing so in the *VoIP LNP Order*. See *Telephone Number Requirements for IP-Enabled Services Providers; Local Number Portability Porting Interval and Validation Requirements; IP-Enabled Services; Telephone Number Portability; Numbering Resource Optimization*, WC Docket Nos. 07-243, 07-244, 04-26, CC Docket Nos. 95-116, 99-200, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, 22 FCC Rcd 19531, 19550, para. 35 (2007) (*VoIP LNP Order*), *aff'd sub nom. National Telecomms. Cooperative Ass'n v. FCC*, 563 F.3d 536 (D.C. Cir. 2009).

¹⁵¹ *Direct Access NPRM*, 28 FCC Rcd at 5859, para. 34.

¹⁵² *Id.* at 5884, para. 107.

¹⁵³ California PUC Comments at 18; Joint State Comments at 13; Michigan PSC Comments at 4; Pennsylvania PUC Comments at 14 (encouraging accessibility to 911 services with accurate location information, regardless of the provider or the technology of telecommunications); Hypercube Comments at 9.

the information needed to correctly route those calls.¹⁵⁴ AT&T, on the other hand, advocates separately addressing mandating the use of all N11 numbers in the context of interconnected VoIP service in order to give interested parties the opportunity to air all concerns, including technical feasibility.¹⁵⁵

CenturyLink argues that because N11-dialing deployments are not without cost and because service providers require some time to design and deploy such functionality, if the Commission requires that the N11-dialing functionality be a requirement for interconnected VoIP providers to obtain direct access to numbers, the requirement be conditioned on a government or authorized private party asking for the deployment, the requesting party paying for the deployment, and permitting up to a year after a bona fide request to accomplish the deployment.¹⁵⁶ Level 3 cautions the Commission to avoid imposing a blanket requirement that VoIP providers with access to numbers also provide access to state-designated N11 numbers, as any requirement that end users be provided access to N11 services should be imposed on the end user's service provider, without regard to whether the provider has obtained numbers directly or indirectly.¹⁵⁷

47. To balance the state commission concerns about customers' expectations of access to all active N11 dialing arrangements as VoIP services becomes a replacement for traditional carrier service and the industry concerns about the technical feasibility of providing N11,¹⁵⁸ we require interconnected VoIP providers, as a condition of maintaining their authorization for direct access to numbers, to continue to provide their customers with the ability to access 911 and 711, the Commission-mandated N11 numbers that interconnected VoIP providers are required to provide regardless of whether they obtain numbers directly or through a numbering partner. We also require interconnected VoIP providers to give their customers access to Commission-designated N11 numbers in use in a given rate center where an interconnected VoIP provider has requested numbering resources,¹⁵⁹ to the extent that the provision of these dialing arrangements is technically feasible. We expect that interconnected VoIP providers will notify consumers and state commissions if they cannot provide access to a particular N11 code due to technical difficulties. These requirements will allow the potential availability of these dialing arrangements until the Commission has concluded its pending rulemaking addressing the technical

¹⁵⁴ See Vonage Comments at 16-17.

¹⁵⁵ See AT&T Comments at 14 (arguing that this issue should not be resolved in this proceeding or as a prerequisite to allowing interconnected VoIP providers direct access to numbering resources).

¹⁵⁶ CenturyLink Comments at 11-12 (stating that six months seems a short period of time to deploy N11 dialing, and noting that with the 711 implementation it required more than the anticipated six months to implement access and it did so in the absence of any actual knowledge that a 711 call had ever been dialed); see also Vonage Reply at 19 (suggesting that VoIP providers be subject to N11 obligations only for N11 codes actually in use in a given jurisdiction).

¹⁵⁷ Level 3 Comments at 8.

¹⁵⁸ Joint State Comments at 13.

¹⁵⁹ In addition to 911 and 711, to date, the Commission has designated—and required carriers to provide access to—four additional N11 codes – 211, 311, 511, and 811. See *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 5572 (1997) (designating 311 for non-emergency police and other governmental services); *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Third Report and Order and Order on Reconsideration, 15 FCC Rcd 16753 (2000) (designating 211 for information and referral services and 511 for travel and information services); *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Sixth Report and Order, 20 FCC Rcd 5539 (2005) (designating 811 for state “One Call” notification systems for providing advanced notice of excavation activities to underground facility operators in compliance with the Pipeline Safety Improvement Act of 2002). The remaining N11 codes – 411 and 611 – are widely used by carriers, but have not been assigned by the Commission for nationwide use. In some states, N11 codes that have not been assigned nationally can continue to be assigned for local uses, provided that such use can be discontinued on short notice. See NANPA website, <http://www.nanpa.com>.

feasibility of interconnected VoIP providers' offering of these codes.¹⁶⁰ Without continued access to these numbers, their availability will diminish as consumers increasingly favor interconnected VoIP services over traditional telecommunications services.

48. We decline to adopt other proposals in the record calling for additional restrictions and conditions on interconnected VoIP providers' obtaining numbers, which are not imposed on telecommunications carriers.¹⁶¹ For example, we will not require interconnected VoIP providers to take numbers from certain rate centers chosen by the state commissions in more populous areas or in blocks of less than 1000 numbers. We conclude that additional restrictions beyond those that we adopt are unnecessary and would significantly disadvantage interconnected VoIP providers relative to competing carriers offering voice services. Moreover, the record does not demonstrate the need to impose additional restrictions on interconnected VoIP providers at this time.¹⁶² We conclude that the measures we take in this Order will promote efficient number utilization and protect against number exhaust.¹⁶³ Similarly, we decline to act on proposals to revise our current reporting requirements, as we do not have a sufficient record upon which to evaluate such proposals.¹⁶⁴

49. We also decline to adopt as requirements additional voluntary commitments imposed in the Direct Access Trial. In addition to complying with the Commission's numbering requirements and the requirements set forth in the *SBCIS Waiver Order*, Vonage offered several commitments as a condition of the Commission granting it a waiver in order to obtain numbers directly from the Numbering Administrators.¹⁶⁵ Specifically, Vonage's commitments included: offering to maintain at least 65 percent number utilization across its telephone number inventory, offering VoIP interconnection to other carriers and providers, and providing the Commission with a transition plan for migrating customers to its own numbers within 90 days of commencing that migration and every 90 days thereafter for 18 months.¹⁶⁶ Vonage indicated that these commitments would ensure efficient number utilization and facilitate Commission oversight.¹⁶⁷ The Commission imposed these commitments on participants in the Direct

¹⁶⁰ *VoIP LNP Order*, 22 FCC Rcd at 19550, para. 53 (seeking comment on whether the Commission should require interconnected VoIP providers to comply with N11 code assignments other than 911 and 711 and on the technical feasibility of a requirement to comply with those assignments).

¹⁶¹ See, e.g., California PUC Comments at 15 (proposing that interconnected VoIP number requests be steered to rate centers where the pools have 20 or more blocks, and no interconnected VoIP number requests should be accommodated in non-pooling rate centers); New Jersey Division of Rate Counsel Comments at 10 (suggesting that the Commission should consider allowing state commissions to direct interconnected VoIP providers to obtain numbers from a particular rate center); Pennsylvania PUC Comments at 10 (asserting that the Commission should permit states to steer Local Routing Number requests toward rate centers in more populated areas).

¹⁶² For example, we need not adopt the proposed requirement of maintaining the original rate center designation of all numbers in an interconnected VoIP provider's inventory as a separate requirement because, as discussed above, industry guidelines already dictate that all service providers must maintain the original rate center designation of all numbers in their inventory. See *supra* note 92.

¹⁶³ See *supra* Section III.B.1; paras. 43-44; see also *infra* Section III.B.4.

¹⁶⁴ See, e.g., Joint State Comments at 8 (arguing that to ensure more accurate NRUF reporting, once an interconnected VoIP provider has its own OCN and obtains numbers directly from the Numbering Administrators, it should no longer have the ability to simultaneously obtain numbers through a numbering partner); California PUC Reply at 8 (recommending that all carriers with an inventory of numbers be required to report to the NANPA their ported numbers); Windstream Reply at 7 (asserting that interconnected VoIP providers with direct access should be required to submit NRUF reports on a quarterly basis, rather than semiannually).

¹⁶⁵ See *Direct Access NPRM*, 28 FCC Rcd 5859, para. 32.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

Access Trial¹⁶⁸ and sought comment on whether it should impose some or all of the Vonage commitments on interconnected VoIP providers, or on all entities that obtain telephone numbers.¹⁶⁹

50. Consistent with our effort to make the process by which interconnected VoIP providers obtain numbers as similar as possible to the process telecommunications carriers that already have direct access to numbers use, we decline to mandate additional requirements for interconnected VoIP providers that were offered by Vonage as voluntary commitments, and imposed on all participants in the Direct Access Trial. As discussed above, we require all interconnected VoIP providers that obtain direct access to numbers to comply with the Commission's number utilization and optimization requirements, including the filing of NRUF reports and Months to Exhaust Worksheets for growth numbering resources. Given the Commission's current 75 percent utilization requirement for rate centers, we conclude that we need not require interconnected VoIP providers to maintain at least 65 percent number utilization across their entire telephone number inventories at this time. While the Commission may consider extending an overall utilization requirement to all carriers and providers in the future,¹⁷⁰ we do not impose such a disparate requirement on interconnected VoIP providers obtaining direct access to numbers at this time. Moreover, as Vonage suggests, conditions attached to a short-term waiver request that were designed to ensure that an existing rule's underlying purposes were met in particular circumstances are no longer necessary—and, in fact, have the potential to undermine the eventual success of the new regulatory regime.¹⁷¹ Further, while we anticipate an increase in VoIP interconnection arrangements once interconnected VoIP providers are authorized to access numbers directly, we decline to mandate those arrangements, as the Commission is currently considering the appropriate policy framework for VoIP interconnection in pending proceedings.¹⁷² Therefore, we do not adopt the commitments that Vonage offered as conditions of its request for waiver as requirements for interconnected VoIP providers to access numbers directly from the Numbering Administrators, and as of the effective date of this Order, participants in the trial who are still using the numbers they obtained in the trial may stop complying with the conditions imposed on the trial that are not made permanent requirements by this Order.

4. Enforcement

51. The Commission sought comment on whether obtaining Commission authorization for an interconnected VoIP provider to obtain numbers should subject an interconnected VoIP provider to the same or similar enforcement provisions as telecommunications carriers. The Commission asked whether the Commission authorization would allow the agency to exercise forfeiture authority without first issuing a citation;¹⁷³ whether interconnected VoIP providers that obtain numbers directly should be subject to the

¹⁶⁸ *Id.* at 5884, para. 106.

¹⁶⁹ *Id.* at 5859, para. 32.

¹⁷⁰ For example, mobile carriers may have similar flexibility to give customers numbers that do not correlate to the customers' rate centers. Imposing an overall utilization rate might also be appropriate if we implement a non-geographic numbering scheme, as was discussed in the Notice of Inquiry in this proceeding. See California PUC Comments at 17 -18 (noting that wireless providers are not subject to the same geographical constraints as traditional providers, and many of them, while working under existing rules, have utilization levels higher than 75 percent, and suggesting that the Commission should consider phasing in a higher threshold, over time, especially if it adopts other measures that would ensure more accurate tracking of number use).

¹⁷¹ See Vonage Comments at 12; see also, e.g., California PUC Comments at 17 (recommending that the Commission adopt a threshold of no less than 75 percent for interconnected VoIP providers, as that is the utilization threshold for all carriers); Pennsylvania PUC Reply at 7.

¹⁷² See, e.g., *USF/ICC Transformation Order*, 26 FCC at 18123-47, paras. 1335-98; tw telecom inc. Petition for Declaratory Ruling Regarding Direct IP-to-IP Interconnection, WC Docket No. 11-119 (filed June 30, 2011); see also *infra* Section III.B.5.b.

¹⁷³ *Direct Access NPRM*, 28 FCC Rcd at 5855, para. 21, 5860, para. 37.

same penalties and enforcement procedures as carriers; and whether outstanding debts or other violations should prevent an interconnected VoIP provider from obtaining numbering resources.¹⁷⁴

52. Interconnected VoIP providers who apply for and receive Commission authorization for direct access to numbers are subject to, and acknowledge, Commission enforcement authority.¹⁷⁵ As described above, we require interconnected VoIP providers that seek Commission authorization to obtain direct access to numbers to comply with the Commission's numbering obligations.¹⁷⁶ As a result, interconnected VoIP providers that obtain Commission authorization for direct access to numbers are subject to the Commission's enforcement authority and forfeiture penalties for violations of the Commission's numbering rules and the obligations established herein.¹⁷⁷ We also find that the Commission authorization discussed in this Order serves as an "other authorization" under section 503(b)(5) of the Act, such that no citation is needed before a forfeiture for violation of any Commission rules to which the provider is subject can be assessed.¹⁷⁸ Commenters generally agree that, if interconnected VoIP providers are authorized by the Commission to obtain numbers directly, they should be subject to Commission enforcement and forfeiture authority.¹⁷⁹ No commenter asserted that the Commission should have to issue a citation before it could take enforcement action against an interconnected VoIP provider for violating numbering rules or requirements. Several state commissions urged that interconnected VoIP providers that receive Commission authorization to obtain numbers should be subject to the same enforcement and penalty provisions as traditional carriers.¹⁸⁰ The enforcement provisions are an important component for maintaining the integrity of the numbering system as well as ensuring fair competition with telecommunications carriers providing similar services using numbers that they obtain from the Numbering Administrators.

¹⁷⁴ *Id.* at 5860-61, paras. 37-39.

¹⁷⁵ See 47 U.S.C. § 503(b)(1) ("Any person who is determined by the Commission . . . to have . . . willfully or repeatedly failed to comply substantially with the terms and conditions of any . . . other instrument or authorization issued by the Commission . . . [or] willfully or repeatedly failed to comply with any of the provisions of this Act or of any rule, regulation, or order issued by the Commission under this Act . . . shall be liable to the United States for a forfeiture penalty.").

¹⁷⁶ See 47 C.F.R. Part 52; see also *supra* Section III.B.1.a.

¹⁷⁷ See 47 U.S.C. § 503(b); *c.f.*, *Assessment and Collection of Regulatory Fees for Fiscal Year 2015; Amendment of Part 1 of the Commission's Rules; Assessment and Collection of Regulatory Fees for Fiscal Year 2014*, MD Docket No. 15-121, 14-92, Notice of Proposed Rulemaking, Report and Order, and Order, FCC 15-59, para. 24 (rel. May 21, 2015). We note that interconnected VoIP providers are already subject to the Commission's enforcement authority for violation of certain of the Commission's numbering (and other) rules that currently apply to them. See, e.g., *VoIP LNP Order*, 29 FCC Rcd 19531; *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, CC Docket No. 96-115, WC Docket No. 04-26, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 6927 (2007).

¹⁷⁸ See 47 U.S.C. § 503(b)(5) ("No forfeiture liability shall be determined under this subsection against any person, if such person does not hold a license, permit, certificate, or *other authorization* issued by the Commission, . . . unless . . . such person . . . is sent a citation of the violation charged. . .") (emphasis added).

¹⁷⁹ AT&T Comments at 15 (arguing that interconnected VoIP providers seeking direct access to numbers should submit voluntarily to the authority of the Commission with respect to any obligations assumed in the documentation process associated with such access and to the Commission's numbering rules, including enforcement actions or forfeiture authority); Bandwidth Comments at 12-13 (asserting that if the Commission considers allowing direct access by non-carriers, it should require that they obtain state/federal certification to implicate the Commission's forfeiture authority and require consent to the same penalties); COMPTTEL Comments at 14 (asserting that the Commission should use the certification process to obtain commitments that reaffirm its forfeiture authority over the provider); New Jersey Division of Rate Counsel Comments at 9 (supporting proposal that a certification would also permit the Commission to use its forfeiture authority without first issuing a citation).

¹⁸⁰ See, e.g., California PUC Comments at 20; Michigan PSC Comments at 7; Wisconsin PSC Comments at 14.

53. We also observe that a failure to comply with the Commission's numbering rules could result in a loss of an interconnected VoIP provider's Commission authorization, the inability to obtain additional numbers pending that revocation, and reclamation of any un-assigned numbers that the provider has obtained directly from the Numbering Administrators.¹⁸¹ We delegate authority to the Wireline Competition and Enforcement Bureaus to order the revocation of authorization and to direct the Numbering Administrators to reclaim any of the service provider's unassigned numbers.

5. Other Issues Relating to Direct Access for Interconnected VoIP Providers

a. Local Number Portability Obligations

54. In 2007, the Commission extended LNP obligations to interconnected VoIP providers in the *VoIP LNP Order*.¹⁸² The Commission's porting rules impose an "affirmative legal obligation" on interconnected VoIP providers "to take all steps necessary to initiate or allow a port-in or port-out."¹⁸³ In the *VoIP LNP Order*, the Commission also "clarif[ied] that carriers have an obligation under our rules to port-out NANP telephone numbers, upon valid request, for a user that is porting that number for use with an interconnected VoIP service."¹⁸⁴ The Commission concluded at the time that it had "ample authority" to impose porting requirements on local exchange carriers and interconnected VoIP providers.¹⁸⁵

55. Permitting interconnected VoIP providers direct access to numbers will enable interconnected VoIP providers to be more responsive to end user LNP requests by eliminating the extra time, complexity, and potential for confusion associated with the existing processes.¹⁸⁶ It is our intention that users of interconnected VoIP services should enjoy the benefits of local number portability without regard to whether the interconnected VoIP provider obtains numbers directly or through a carrier partner.¹⁸⁷ Thus, we modify our rules to include language codifying that intention. Specifically, we adopt

¹⁸¹ *C.f.*, *Toll Free Access Codes*, CC Docket No. 95-155, Second Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 11162, 11185, para. 9 (1997) ("We also may limit any [non-carrier] RespOrg's allocation of toll free numbers or possibly decertify it as a RespOrg under § 251(e)(1) or § 4(i) [of the Communications Act.]").

¹⁸² *VoIP LNP Order*, 22 FCC Rcd 19531. Specifically, the Commission stated that "both an interconnected VoIP provider and its numbering partner must facilitate a customer's porting request to or from an interconnected VoIP provider. By 'facilitate,' we mean that the interconnected VoIP provider has an affirmative legal obligation to take all steps necessary to initiate or allow a port-in or port-out itself or through its numbering partner on behalf of the interconnected VoIP customer (*i.e.*, the 'user'), subject to a valid port request, without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the number." *Id.* at 19548-49, para. 32 (emphasis added). *See also* 47 C.F.R. § 52.34 (explaining the obligation of interconnected VoIP providers to facilitate "valid number portability request[s]").

¹⁸³ 47 C.F.R. § 52.34.

¹⁸⁴ *See VoIP LNP Order*, 22 FCC Rcd at 19550, para. 35.

¹⁸⁵ These requirements were imposed pursuant to sections 251(e) and 251(b)(2), as well as to the Commission's ancillary authority under Title I of the Communications Act. *See id.* at 19543, para. 21, 19541, para. 19.

¹⁸⁶ *See, e.g.*, Flowroute Comments at 3-4 (explaining that relying on carriers for portability impedes the ability of consumers to switch providers in some cases, and also makes it difficult for interconnected VoIP providers to ensure the validity of port requests concerning numbers assigned to their own end user customers); Vonage Comments at 6-7 (explaining that direct access eliminates the risk of breakdowns in communications between an interconnected VoIP provider and its third-party numbering provider that can cause customer-impacting errors); VON Comments at 4 ("[D]irect access will allow number porting without forced coordination with a third-party numbering provider, thereby simplifying the number porting process and reducing the opportunity for error.").

¹⁸⁷ *See California PUC Comments* at 21 ("All numbers assigned to two-way telecommunications devices should be portable; the source of numbers should not be the basis for any disparate treatment."); Vonage Comments at 25 ("The obligation to complete ports out to VoIP providers does not hinge on whether that VoIP provider obtains numbers via a relationship with a CLEC partner or directly."); AT&T Comments at 28 (stating that "although there is no ambiguity in the Commission's *VoIP LNP Order* on this point, we would not oppose the Commission's

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an affirmative obligation requiring telecommunications carriers that receive a valid porting request to or from an interconnected VoIP provider to take all steps necessary to initiate or allow a port-in or port-out without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the NANP-based telephone number.¹⁸⁸

56. We disagree with commenters' assertions that the Commission lacks authority to require local exchange carriers (LECs) and CMRS providers to port numbers to and from interconnected VoIP providers, or to require interconnected VoIP providers to port numbers to and from such carriers.¹⁸⁹ The Act requires LECs "to provide, to the extent technically feasible, number portability," and defines "number portability" as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."¹⁹⁰ Opponents assert that these provisions limit the Commission to requiring number portability only between "telecommunications carriers," and since the Commission has not classified interconnected VoIP providers as such, it cannot require LECs or non-LEC CMRS providers to port numbers directly to and from interconnected VoIP providers.¹⁹¹

57. We disagree. We observe that while section 251(b)(2) expressly addresses LECs' obligations to port numbers when their customers switch to another telecommunications carrier, it is silent about any obligations of LECs beyond that, and does not preclude reliance on other, more general authority to impose additional LNP obligations on LECs under section 251(e)(1), nor does it address the obligations of non-LEC wireless carriers.¹⁹² Because number portability—whether to and from an interconnected VoIP provider, LEC, or non-LEC carrier—clearly makes use of telephone numbers, implicating "facets of numbering administration" under section 251(e)(1), we conclude that section 251(e)(1) provides authority supporting LECs' and non-LEC wireless carriers' obligation to port numbers directly to and from interconnected VoIP providers.¹⁹³

58. We also find that section 251(e)(1) provides sufficient authority to require interconnected VoIP providers that obtain numbers directly from the Numbering Administrators to port numbers to and from other providers of voice service. Section 251(e)(1) provides the Commission "exclusive jurisdiction

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making the intent of that order even clearer on this issue"); Comcast Comments at 7; XO Reply at 8 (supporting the Commission's proposal to codify its intention to allow users of interconnected VoIP services the benefits of local number portability without regard to whether the interconnected VoIP provider obtains numbers directly or through a carrier partner).

¹⁸⁸ See *Direct Access NPRM*, 28 FCC Rcd at 5869, paras. 61-62; see also *infra* App. B., Final Rules.

¹⁸⁹ See, e.g., NARUC Trial Report Comments at 8 (filed Mar. 4, 2014) ("Congress simply did not extend the duty to provide number portability to providers that are not 'telecommunications carriers.'"); Bandwidth Trial Report Comments at 5 (filed Mar. 4, 2014) (same); Bandwidth Comments at 20 ("It is not clear to Bandwidth how the Commission has the legal authority to require a carrier to port numbers to a non-carrier, particularly without first declaring that the services in question are 'telecommunications services.'").

¹⁹⁰ 47 U.S.C. §§ 251(b)(2), 153(37).

¹⁹¹ See *supra* note 189; see also COMPTTEL Comments at 8; Bandwidth Trial Report Comments at 4-8.

¹⁹² See, e.g., *Adirondack Medical Center v. Sebelius*, 740 F.3d 692, 699 (D.C. Cir. 2014) ("[I]t is not unreasonable to say § 1395ww(d)(5)(l)(i) operates to the extent that § 1395ww(d)(3)(a)(vi) [and another provision] are silent. The two [latter] provisions say nothing about adjusting the hospital-specific rate; therefore, the broad grant of authority [in 1395ww(d)(5)(l)(i)] (and the Secretary's use thereof) fills a space that the specific provisions do not occupy. Such an arrangement does not run afoul of the general/specific cannon.").

¹⁹³ See, e.g., *Telephone Number Portability*, CC Docket No. 95-116, RM 8535, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8431-32, para. 143 (1996) ("Implementation of long-term service provider portability by CMRS carriers will have an impact on the efficient use and uniform administration of the number resource.").

over those portions of the North American Numbering Plan that pertain to the United States,¹⁹⁴ and the Commission has retained its “authority to set policy with respect to all facets of numbering administration in the United States.”¹⁹⁵ As the Commission explained in the *VoIP LNP Order*, to the extent that an interconnected VoIP provider provides services that offer its customers NANP telephone numbers, the interconnected VoIP provider “subjects [itself] to the Commission’s plenary authority under section 251(e)(1) with respect to those numbers.”¹⁹⁶ As the Commission has previously found, “[f]ailure to extend LNP obligations to interconnected VoIP providers . . . would thwart the effective and efficient administration of our numbering administration responsibilities under section 251 of the Act.”¹⁹⁷

59. The industry and Commission have developed limits on the extent to which a provider must port numbers from one geographic area to another. For example, under a NANC guideline adopted by the Commission, a wireline carrier must port to another wireline carrier within the same rate center.¹⁹⁸ A wireline carrier must port numbers to a wireless carrier where the requesting wireless carrier’s coverage area overlaps with the geographic location of the customer’s wireline rate center, so long as the porting-in wireless carrier maintains the number’s original rate center designation following the port.¹⁹⁹ A wireless carrier must port out a NANP telephone number to another wireless carrier, or a wireline carrier that is within the number’s originating rate center.²⁰⁰ In the past, interconnected VoIP providers (with the exception of SBCIS) have obtained numbers through carrier partners, and the porting obligations to or from the interconnected VoIP provider stemmed from the status of the numbering partner.²⁰¹

60. The Commission sought comment on the geographic limitations, if any, that should apply to ports between either a wireline or wireless carrier and an interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators.²⁰² There is broad support in the record

¹⁹⁴ 47 U.S.C. § 251(e)(1).

¹⁹⁵ *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers; Area Code Relief Plan for Dallas and Houston, Ordered by the Public Utility Commission of Texas; Administration of the North American Numbering Plan; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, CC Docket Nos. 96-98, 95-185, 92-237; NSD File No. 96-8; IAD File No. 94-102, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392, 19512, para. 217 (1996) (explaining that by retaining exclusive jurisdiction over numbering policy the Commission preserves its ability to act flexibly and expeditiously).

¹⁹⁶ *VoIP LNP Order*, 22 FCC Rcd at 19543, para. 22.

¹⁹⁷ *Id.* at 19546-47, para. 27.

¹⁹⁸ *See Telephone Number Portability*, CC Docket No. 95-116, Second Report and Order, 12 FCC Rcd 12281, 12313, para. 51 (1997) (adopting the technical and operational standards and procedures recommended by the NANC in the *Working Group Report*); NANC Local Number Portability Administration Working Group Report, App. D, Architecture & Administrative Plan for Local Number Portability, 7.3 (Apr. 25, 1997) (*Working Group Report*) (explaining that portability is technically limited to rate center/rate district boundaries of the incumbent LEC due to rating/routing concerns). A “rate center” is a geographic area that is used to determine whether a call is local or toll. *See VoIP LNP Order*, 22 FCC Rcd at 19534, n.13.

¹⁹⁹ *See Telephone Number Portability; CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues*, CC Docket No. 96-116, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 23697, 23706, para. 22 (2003) (*Intermodal Number Portability Order*). A wireless carrier’s coverage area is the “area in which wireless service can be received from the wireless carrier.” *Id.* at 23698, para. 1.

²⁰⁰ *Intermodal Number Portability Order*, 18 FCC Rcd at 23706, para. 22.

²⁰¹ *VoIP LNP Order*, 22 FCC Rcd at 19549-50, para. 34.

²⁰² *See Direct Access NPRM*, 28 FCC Rcd at 5869, para. 63; *see also, e.g.*, California PUC Comments at 21-22 (recommending that ports to VoIP providers should not be constrained by geographic considerations, while a port out from a VoIP provider to a wireline provider would have to be within the wireline provider’s territory); Comcast Comments at 8 (“VoIP providers should only be required to port numbers to a wireline carrier with facilities or telephone numbers in the same rate center, or to a wireless carrier whose coverage area overlaps with the geographic

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for industry involvement in addressing technical feasibility in porting arrangements between interconnected VoIP providers and wireline and wireless carriers.²⁰³ We agree that the industry should be involved in addressing these issues. Accordingly, we direct the North American Numbering Council (NANC) to examine and address any specific considerations for interconnected VoIP provider porting both to and from wireline, wireless, and other interconnected VoIP providers. In particular, we direct the NANC to examine any rate center or geographic considerations implicated by porting directly to and from interconnected VoIP providers, including the implications of rate center consolidation, as well as public safety considerations, any such PSAP and 911 issues that could arise. We also direct the NANC to give the Commission a report addressing these issues, which includes options and recommendations, no later than 180 days from the release date of this Report and Order.

61. We find, however, that we need not delay giving interconnected VoIP providers direct access to numbers pending specific industry input. The Commission is currently examining how to address non-geographic number assignment in an all-IP world, and that proceeding is the forum in which to address such concerns.²⁰⁴ The Direct Access Trial provided an opportunity to test porting directly to interconnected VoIP providers, and that porting occurred without incident.²⁰⁵ As such, we decline at present to articulate specific geographic limitations on ports between an interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators and a wireline or wireless carrier.²⁰⁶ Instead, we find that an interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators and is not utilizing the services of a numbering partner for LNP purposes must port telephone numbers to and from a wireline or wireless carrier where technically feasible.²⁰⁷ Similarly, a wireline or wireless carrier must also port in and port out telephone numbers to

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location of the customer's rate center (so long as the wireless carrier maintains the number's original rate center designation following the port.); AT&T Comments at 28 (“[T]he Commission should apply the same rate center restriction on ports to interconnected VoIP providers that it adopted for wireline-to-wireless ports in *Wireline-to-Wireless LNP Order*.”); Interisle Comments at 10-11 (asserting that geographic limitations should be no different for interconnected VoIP providers than for any other provider); Terra Nova Telecom Comments at 11 (same).

²⁰³ See, e.g., Comcast Comments at 8 (stating that the Commission should “continue to rely on industry working groups to establish the ‘best practices’ and appropriate geographic limitations, if any, for other types of ports, including new porting scenarios that arise in the future.”); AT&T Trial Report Comments at 4 (filed Mar. 4, 2014) (“[W]e believe that the Commission should charge the North American Numbering Council (NANC) with the intra-industry collaborative task of agreeing upon the mechanisms and processes necessary to give the *non-carrier* [interconnected VoIP providers] the equivalent provider-to-provider experience enjoyed by carriers today with respect to . . . numbering related matters.”); XO Reply at 8 (stating that the Commission “should continue to rely on industry working groups to establish the ‘best practices’ and appropriate geographic limitations, if any, for other types of ports, including new porting scenarios that arise in the future”).

²⁰⁴ See *infra* para. 71 and note 258.

²⁰⁵ See *Direct Access Trial Report*, 29 FCC Rcd at 932, para. 14.

²⁰⁶ The record reflects concern from state commissions that assignment of numbers from a foreign rate center by interconnected VoIP providers prevents customers from later porting their numbers to a facilities-based provider. See Joint State Comments at 12 (“It appears that non-geographic number assignments to retail customers may be a means for some VoIP providers to avoid their porting obligations.”). As the Commission has previously observed, “because interconnected VoIP providers offer telephone numbers not necessarily based on the geographic location of their customers – many times at their customers’ requests – there may be limits to number porting between providers.” *VoIP LNP Order*, 22 FCC Rcd at 19550, n.114. We reiterate that we expect interconnected VoIP providers to fully inform their customers about these limitations, particularly limitations that result from the nomadic nature of, and use of non-geographic numbers by, certain interconnected VoIP services. See *id.*

²⁰⁷ See 47 C.F.R. § 52.34(a) (requiring that an interconnected VoIP provider “must facilitate an end-user customer’s . . . valid number portability request . . . either to or from a telecommunications carrier or an interconnected VoIP [provider]” where “facilitate” is defined as the interconnected VoIP provider’s “affirmative legal obligation to take all steps necessary to initiate or allow a port-in or port-out itself . . . without unreasonable delay or unreasonable

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an interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators and that is not utilizing the services of a numbering partner for LNP purposes where technically feasible.²⁰⁸

b. Interconnection Obligations

62. The Commission reminds providers that the *USF/ICC Transformation Order* said that “[t]he duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection” and that the Commission “expect[s] all carriers to negotiate in good faith in response to requests for [VoIP] interconnection.”²⁰⁹ The Commission sought comment on the effect that direct access to numbers for interconnected VoIP providers would have on the industry’s transition to direct interconnection in IP, the status of IP interconnection for VoIP providers today, and the extent to which permitting interconnected VoIP providers to obtain numbers directly from the Numbering Administrators would promote VoIP interconnection.²¹⁰ The Commission stated its expectation that “granting VoIP providers direct access to numbers would facilitate several types of VoIP interconnection, including interconnection between over-the-top VoIP providers and cable providers, interconnection between two over-the-top providers, and interconnection between cable providers,” and sought comment on this analysis.²¹¹ The Commission also sought comment on whether direct access to numbers for interconnected VoIP providers would affect the rights and obligations of service providers vis-à-vis VoIP interconnection.²¹²

63. VoIP interconnection is an important element in completing the transition from TDM to IP networks and services.²¹³ As explained above, we find, and the record reflects, that permitting interconnected VoIP providers to obtain numbers directly from the Numbering Administrators will encourage and promote VoIP interconnection.²¹⁴ For example, Vonage explains that direct access is

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procedures that have the effect of delaying or denying porting of the NANP-based telephone number”); *VoIP LNP Order*, 22 FCC Rcd at 19550, n.114 (“[I]f an interconnected VoIP service customer selects a number within his geographic rate center and moves out of that rate center, and then requests porting to a wireline carrier in his new rate center, the customer would not be able to port the number.”).

²⁰⁸ See *VoIP LNP Order*, 22 FCC Rcd at 19950, para. 35.

²⁰⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 18045, para. 1011.

²¹⁰ *Direct Access NPRM*, 28 FCC Rcd at 5865-66, paras. 52-54.

²¹¹ *Id.* at 5866, para. 54.

²¹² *Id.* at 5867, para. 56.

²¹³ See AT&T Comments at 24; Intelpeer Comments at 3-4 (“As more IP connections become available, the additional features and functionalities offered with end-to-end IP voice communications will promote increased consumer adoption of such services, thus generating even more IP traffic for exchange amongst carriers and providers.”); XO Reply at 10 (asserting that VoIP interconnection “dramatically improves call quality by giving interconnected VoIP providers greater control over calls, avoiding unnecessary TDM/IP handoffs, providing greater visibility into call routing, and simplifying troubleshooting . . . [VoIP] interconnection promises benefits for both consumers and the industry as a whole”).

²¹⁴ See *supra* para. 19; see also Vonage Apr. 11, 2014 *Ex Parte* Letter at 2 (“[T]he value of an IP interconnection arrangement for a potential IP interconnection partner is directly related to the volume of customer telephone numbers that Vonage can provide access to under the IP interconnection arrangement. In addition, the certainty from permanent rules would give potential IP interconnection partners much greater incentive to undertake the necessary investment to establish IP interconnections.”); AT&T Comments at 23 (“[P]roviding direct access to numbering resources will be an important catalyst in furthering the ongoing transition and broadening the commercial IP interconnection that already has occurred.”); VON Comments at 6 (stating that “the lack of direct access to numbers has obstructed VoIP providers’ good-faith attempts to establish IP interconnection arrangements with other providers” and allowing direct access will “mak[e] the process of negotiating interconnection agreements

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necessary to achieve voluntary VoIP interconnection arrangements because “providers must, as a practical matter, be able to see i[nterconnected]VoIP providers as the ‘owners’ of a number in the industry databases [in] order to route traffic to such providers directly. Without direct access, i[nterconnected]VoIP providers’ numbers appear to belong to underlying numbering partners, preventing direct routing between i[nterconnected]VoIP providers and their potential IP interconnection partners.”²¹⁵ In the *Direct Access Trial Report*, the Bureau found that the trial indicated that there may be some confusion regarding parties’ rights and obligations with respect to interconnection, but that such matters could be addressed in pending rulemakings addressing the topic.²¹⁶ Though some commenters assert that the Commission must address VoIP interconnection obligations in its pending rulemaking proceedings before permitting interconnected VoIP providers to obtain numbers directly,²¹⁷ we disagree that such a step is required. The process and obligations we establish in this Order enable interconnected VoIP providers that are unable to obtain state certification to request Commission authorization in order to enable them to obtain numbers directly from the Numbering Administrators. Our actions in this Order neither rely on, nor require, the Commission to address the many issues surrounding VoIP interconnection. Thus, given the complexity and importance of VoIP interconnection in facilitating the transition to all-IP network, we find that issues relating to VoIP interconnection that may result from interconnected VoIP providers obtaining numbers directly from the Numbering Administrators are more appropriately addressed in the Commission’s pending proceedings addressing VoIP interconnection.²¹⁸

c. Intercarrier Compensation

64. In the *USF/ICC Transformation Order*, the Commission adopted a default uniform national bill-and-keep framework as the ultimate intercarrier compensation end state for all telecommunications traffic exchanged with a LEC, and established a measured transition that focused initially on reducing certain terminating switched access rates.²¹⁹ As explained in the *Direct Access*

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significantly more efficient”); XO Reply at 1 (“[P]ermitting direct access to VoIP providers is likely to facilitate a smoother and faster transition to an all-IP world for voice services.”). *But see* COMPTTEL Comments at 5-6 (stating that it is the inability to get agreements with major ILECs for VoIP interconnection—not the inability to obtain numbers from NANPA and PA—that is preventing consumers from experiencing the innovation of IP technology); *id.* (asserting that even if a change in numbering rules would facilitate VoIP interconnection between two over-the-top VoIP providers, given that such providers serve less than 3% of the PSTN subscriber base, such interconnection would do little in furthering the Commission’s objectives).

²¹⁵ Letter from Brita D. Strandberg, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 *et al.*, at 2 (filed Jul. 11, 2014).

²¹⁶ *See Direct Access Trial Report*, 29 FCC Rcd at 934-37, paras. 19-23, 26 (reporting that during the trial, Vonage concluded a VoIP interconnection agreement with Verizon, and that other providers have entered into or are negotiating VoIP interconnection agreements with Vonage, and that Millicorp also reports that it is in the final stages of negotiating an interconnection agreement with Verizon).

²¹⁷ *See, e.g.*, Bandwidth Comments at 17-18 (stating that “the Commission should, as recommended by NARUC, complete its [rulemaking] proceeding to determine how VoIP Interconnection will be regulated for carriers and non-carriers alike”); Spencer Telecom Comments at 3-5, 10-13 (“Unless the Commission confirms the right of carriers to IP interconnection, the major ILECs will continue to refuse to interconnect on an IP basis and the OTT VoIP providers that obtain direct access to numbers will fail to obtain the interconnection agreements needed to make such access useful.”); GVNW Consulting Comments at 9; Level 3 Reply at 3-4 (arguing that the Commission should address whether section 251 and 252 of the Act apply to VoIP interconnection before considering revisions to the rules governing direct access to numbers which will have “at best, only a modest (and indirect) impact on advancing VoIP interconnection”).

²¹⁸ *See Technology Transitions Order*, 29 FCC Rcd 1433; *USF/ICC Transformation Order*, 26 FCC Rcd at 18123-47, paras. 1335-98.

²¹⁹ *Direct Access NPRM*, 28 FCC Rcd at 5863, para. 47; *USF/ICC Transformation Order*, 26 FCC Rcd at 17676-77, para. 35.

NPRM, the Commission set forth several important policy goals for VoIP traffic in the *USF/ICC Transformation Order*.²²⁰ First, the Commission at that time “set an express goal of facilitating industry progression to all-IP networks.”²²¹ Second, while providing a “move away from the pre-existing, flawed intercarrier compensation regimes,” the Commission sought to “reduce disputes” stemming from the lack of clarity regarding intercarrier compensation obligations for VoIP traffic.²²² Third, the Commission stated that a significant goal was to eliminate opportunities and incentives to engage in access avoidance, both for non-VoIP traffic²²³ and for VoIP traffic.²²⁴

65. The implementation of intercarrier compensation obligations depends on whether the traffic being exchanged is tariffed or exchanged pursuant to an agreement. If traffic is subject to state or federal intercarrier compensation tariffs, intercarrier compensation generally is owed by the entity that receives the tariffed access services. For traffic exchanged pursuant to an agreement, intercarrier compensation is determined by such agreements. Interconnected VoIP providers that access numbers directly from the Numbering Administrators can enter into agreements to interconnect with other providers.²²⁵ Thus, the Commission sought comment on concerns about how the implementation of intercarrier compensation obligations may change as a result of granting interconnected VoIP providers direct access to numbers.²²⁶ The Commission also sought comment on how the Commission should address any new ambiguities in intercarrier compensation payment obligations that might arise as a result of permitting interconnected VoIP providers to access number directly.²²⁷

66. Intercarrier compensation was one of the considerations discussed in the technical trial completed in December 2013. Based on the results of that trial, the Bureau determined that “participants were able to port-in and port-out numbers and issue new numbers to customers, with no significant billing, routing, or compensation disputes reported.”²²⁸ The Bureau further found that “the trial did not identify technical problems regarding . . . intercarrier compensation.”²²⁹

67. Commenters to this proceeding disagree as to what effect authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators will have on intercarrier compensation in the future. AT&T asserts that the Commission should reject concerns that implementation of intercarrier compensation obligations may change as a result of giving interconnected VoIP providers direct access to numbers, explaining that obligations to pay intercarrier compensation have never stemmed from numbers.²³⁰ Vonage contends that direct access enables interconnected VoIP

²²⁰ *Direct Access NPRM*, 28 FCC Rcd at 5863, para. 48.

²²¹ *USF/ICC Transformation Order*, 26 FCC Rcd at 18123, para. 1335; *id.* at 17926, para. 783.

²²² *Id.* at 18009, para. 946.

²²³ *Id.* at 17912, para. 754.

²²⁴ *Id.* at 18006, paras. 941, 951.

²²⁵ *Direct Access NPRM*, 28 FCC Rcd at 5864, para. 50; *see also* AT&T Comments at 22-23 (explaining that providing interconnected VoIP providers direct access to numbering resources will result in compensation for exchanged traffic governed by contracts between the parties that will be outside the default intercarrier compensation regime).

²²⁶ *Direct Access NPRM*, 28 FCC Rcd at 5864, para. 50.

²²⁷ *Id.* at 5865, para. 50.

²²⁸ *Direct Access Trial Report*, 29 FCC Rcd at 936, para. 24.

²²⁹ *Id.* at 927, para. 1; *see also id.* at 937, para. 28.

²³⁰ *See* AT&T Comments at 20; *see also* CenturyLink Comments at 16 (asserting that the intercarrier compensation structure does not change with direct access for interconnected VoIP providers because competitive tandem providers will continue to charge tandem access rates when TDM customers call IP customers); SmartEdgeNet

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providers to seek VoIP interconnection arrangements, which will facilitate the transition to a bill-and-keep regime through commercial agreements.²³¹ Other commenters agree that allowing direct access to numbers will have no effect on intercarrier compensation or outbound reciprocal compensation.²³² On the other hand, Bandwidth asserts that failure to clearly address intercarrier compensation issues will “almost certainly lead to an even higher incidence of call completion problems.”²³³ Interisle contends that interconnected VoIP providers should not be allowed to use their OCNs for billing purposes due to concerns about “misbilling” and “complexity,” but should be required to bill for intercarrier compensation solely through their wholesale partners.²³⁴ NTCA expresses concerns about potential problems with phantom traffic.²³⁵

68. We find that concerns about potential intercarrier compensation issues are speculative and that they do not constitute sufficient grounds to delay authorizing direct access to numbers for interconnected VoIP providers. Bandwidth and NTCA fail to provide any data or evidence of problems with call completion or phantom traffic resulting from the trial, and the *Direct Access Trial Report* did not identify any such problems.²³⁶ Moreover, the vast majority of the issues raised, i.e., concerns about

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Comments at 14 (stating that allowing interconnected VoIP providers to assign numbers directly has no bearing on whether intercarrier compensation payments are made or not).

²³¹ See Vonage Comments at 23-24.

²³² See *id.* Vonage explains that interconnected VoIP providers will likely continue to rely on carrier partners to deliver traffic, and the Commission’s rules entitle those carrier partners to collect intercarrier compensation for functions either the carrier partner or Vonage performs. *Id.* See also Windstream Reply at 9-10; XO Reply at 9; Vonage Trial Report Comments at 4 (filed Mar. 4, 2014) (explaining that during and since the trial, “direct access did not impact terminating intercarrier compensation for calls originated from these numbers”).

²³³ Bandwidth Reply at 18; see also Level 3 Reply at 2-3 (asserting that the commission should clarify the ability of LECs to collect intercarrier compensation for VoIP calls under the Commission’s VoIP Symmetry Rule to encourage investment in, and movement to, IP switching infrastructures).

²³⁴ Interisle Comments at 12-13; see also Terra Nova Telecom Comments at 1-3.

²³⁵ NTCA Comments at 6-7 (asserting that the Commission must address phantom traffic, and if a carrier partner through which interconnection is achieved fails to pay, liability should attach to the number holder).

²³⁶ *Direct Access Trial Report*, 29 FCC Rcd at 927, para. 1. The Commission recently released a Declaratory Ruling clarifying issues related to the VoIP symmetry rules, including the ability of certain LECs to collect intercarrier compensation for VoIP calls. See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Declaratory Ruling, 30 FCC Rcd 1587 (2015). A few days before the Sunshine period began in this proceeding on June 12, 2015, Level 3 raised, for the first time, a concern about potential intercarrier compensation disputes under section 61.26(f) and related VoIP symmetry rules if the VoIP provider, rather than the LEC, is the party listed in the NPAC database as providing the telephone number. See Letter from Joseph C. Cavender, Vice President & Asst. General Counsel, Federal Affairs, Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 et al., at 2-3 (filed June 9, 2015) (citing 47 C.F.R. § 61.26(f)). To address this concern, Level 3 proposes a number of revisions to sections 61.26(f) and 51.913(b) of the Commission’s rules intended to, among other things, make intercarrier compensation payment obligations explicit if either the CLEC or the VoIP provider partner is listed in the NPAC database. *Id.* at 4-5 & Attach. In response, AT&T asserts that these rule revisions could have broader policy implications and require careful consideration by both interested parties and the Commission. See Letter from Hank Hultquist, Vice President, Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 et al., at 1-2 (filed June 11, 2015) (claiming that the rule changes proposed by Level 3 could create the potential for arbitrage and may have far-reaching implications); see also Letter from Curtis L. Groves, Assistant General Counsel, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 et al., at 2-3 (filed Jun. 12, 2015) (urging the Commission not to act on Level 3’s request because it requires notice and comment, and would dramatically expand the scope of the VoIP symmetry rule and the potential for arbitrage). Intercarrier compensation obligations under the VoIP symmetry rules are complex and we find we do not have an adequate record upon which to fully evaluate both the policy and technical implications of Level 3’s proposal. Accordingly, we decline at this time to adopt Level 3’s proposed rule modifications.

incorrect billing, phantom traffic, and call completion, were raised by commenters before the limited trial occurred, and such potential problems never materialized.²³⁷ For these reasons, we decline to delay our action here based on billing and intercarrier compensation concerns expressed in the record. We find that, on balance, authorizing interconnected VoIP providers to access numbers directly will serve the Commission's "express goal of facilitating industry progression to all-IP networks."²³⁸ If, in the future, billing or intercarrier compensation issues related to interconnected VoIP providers having direct access to numbering resources arise, we will address them at that time.

d. Call Routing and Termination

69. The Commission also sought comment generally on whether authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators would hinder or prevent call routing or tracking, and how the Commission can prevent or minimize such complications.²³⁹ The Commission sought comment on whether marketplace solutions are adequate to properly route calls by interconnected VoIP providers, absent a VoIP interconnection agreement, and whether the Commission should require interconnected VoIP providers to maintain carrier partners to ensure that calls are routed properly.²⁴⁰ The Commission also sought comment on the routing limitations that interconnected VoIP providers currently experience as a result of having to partner with a carrier in order to get numbers, and on the role and scalability of various industry databases in routing VoIP traffic directly to the interconnected VoIP provider over IP links.²⁴¹ The Commission also asked how numbering schemes and databases integral to the operations of PSTN call routing will need to evolve to operate well in IP-based networks.²⁴²

70. The record reflects that authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators will facilitate, rather than hinder, call routing and tracking.²⁴³ Further, based on the record, we have no reason to assume that marketplace solutions like those described in the *Direct Access NPRM* will not be adequate to properly route calls to and from interconnected VoIP providers,²⁴⁴ or that changes to the numbering databases are necessary as a result of this Order.²⁴⁵ We

²³⁷ See, e.g., Letter from James C. Falvey, Counsel CLEC Participants, to Ms. Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200 et al., at 1 (filed Mar. 20, 2013) (expressing concerns about phantom traffic); Bandwidth.com, Hypercube, Level 3, Pac-West Telecomm, and COMPTTEL 2012 Comments at 13-14 (filed Jan. 25, 2012) (expressing concerns about billing, call routing, and intercarrier compensation issues); Bandwidth Reply at 3, 18-19 (expressing concerns about call completion, billing disputes).

²³⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 18123, para. 1335; *id.* at 17926, para. 783.

²³⁹ *Direct Access NPRM*, 28 FCC Rcd 5862, para. 44.

²⁴⁰ *Id.*

²⁴¹ *Id.* at 5862, para. 45.

²⁴² *Id.* at 5862, para. 46.

²⁴³ See, e.g., AT&T Comments at 16; Vonage Comments at 20-21 ("Giving VoIP providers greater control over the routing of their calls will actually improve call routing and completion."); Comcast Comments at 10-11 ("Comcast anticipates that the transition to an all-IP world for voice traffic generally will simplify the routing process."); VON Comments at 6 (asserting that allowing direct access will eliminate the need for the development of costly non-industry-standard databases to identify VoIP numbers); Vonage Reply at 19 (noting that the existing system, which associates numbers assigned to Vonage end-users with Vonage's underlying carriers rather than Vonage, is not transparent and can make it difficult for other providers to track calls between their customers and Vonage subscribers).

²⁴⁴ See, e.g., AT&T Comments at 17; SmartEdgeNet Comments at 20 (stating that direct access to numbers will not change the mechanics of interconnected VoIP call routing in any material way); Vonage Comments at 20 (stating that currently available marketplace solutions, together with the inclusion of VoIP providers in the LERG and other relevant databases, ensure that call routing and termination are adequately addressed).

also find, in light of comments in the record and based on lessons learned from our technical trial that, as a technical matter, it is not necessary for interconnected VoIP providers to use a carrier partner to obtain numbers or complete calls. We agree with Telcordia and do not anticipate “any database-related call routing or tracking problems arising from allowing VoIP providers to have direct access to numbers.”²⁴⁶ We disagree with commenters who assert that direct access to numbers for interconnected VoIP providers will raise significant routing issues,²⁴⁷ or that the Commission must mandate changes to the numbering databases at this time.²⁴⁸ We also disagree with commenters asserting that the Commission should require interconnected VoIP providers to have a carrier partner for routing purposes.²⁴⁹ We agree with Intelpeer that “adopting an interim solution as a permanent requirement presumes that such arrangements will be necessary indefinitely, which consequently discourages the industry from continuing to pursue and develop better alternatives.”²⁵⁰ Further, no trial participant reported any routing failures or billing or compensation disputes as a result of direct access to numbers for interconnected VoIP provider trial participants.²⁵¹ Based upon this result, we conclude that further regulatory intervention is not needed at this time to ensure that routing works from a technical perspective.²⁵² As Neustar and Telcordia noted, the numbering databases can accommodate a wide range of scenarios involving interconnected VoIP providers, whether those providers have direct access to numbers or obtain numbers through a carrier

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²⁴⁵ See, e.g., COMPTTEL Comments at 12 (explaining that addressing such re-engineering at this point is premature because signaling system and database evolution are complex subjects, and expand well beyond the scope of the numbering issues contemplated in this proceeding); Comcast Comments at 9 (“Making NANP numbers directly accessible by VoIP providers should not necessitate any new routing requirements. Rather, VoIP providers granted direct access to numbers should simply take over the duties and responsibilities currently assumed by the competitive LEC partners.”); Comcast Comments at 10-11 (explaining that the industry will need to create standards for the routing of IP-based voice traffic using databases such as ENUM and will need to establish procedures to govern call routing during the transitional period in which both legacy and IP-based routing databases simultaneously are used to handle VoIP traffic, but that the industry should take the lead in establishing the relevant parameters that will work for all voice service providers); XO Reply at 8.

²⁴⁶ Telcordia Comments at 2-5.

²⁴⁷ See, e.g., Bandwidth Comments at 17-18 (asserting that “[p]ermitt[ing] non-carriers direct access without clear rules would be at cross purposes with the Commission’s efforts to improve call completion rates and would lead to widespread misrouting and call completion issues”).

²⁴⁸ See, e.g., Intelpeer Comments at 5-6 (asserting that a partition for VoIP numbers should be created in the NPAC, the LERG, and the Business Integrated Rating/Routing Database System (BIRRRDS) for a non-geographic numbering plan, similar to the partition established for wireless numbers which are not subject to geographic limitations, and that the database providers should expand their fields to allow VoIP providers to use their IP addresses used to transmit IP voice traffic); Hypercube Comments at 12-13 (asserting that all non-carrier interconnected VoIP providers with direct access should be required to maintain an alternative LEC routing of “last resort” with their switches homed to a LERG-listed LEC tandem, as a default routing option).

²⁴⁹ See, e.g., Bandwidth Comments at 13-14.

²⁵⁰ Intelpeer Comments at 4; see also SmartEdgeNet Comments at 21; AT&T Comments at 27; Vonage Reply at 22 (asserting that requiring calls to be routed through a carrier partner notwithstanding the actual arrangement established by an interconnected VoIP provider would create roadblocks for the IP transition and undermine the entire purpose of this proceeding for no benefit).

²⁵¹ *Direct Access Trial Report*, 29 FCC Rcd at 936, para. 24; see also Vonage Trial Report Comments at 4 (explaining that during and since the trial, Vonage routed calls successfully).

²⁵² See *id.* at 932, para. 14; Letter from Brita D. Strandberg and Kristine Laudadio Devine, Counsel to Vonage Holdings Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 13-97 et al., at 5 (filed Dec. 19, 2014) (Vonage Dec. 19, 2014 *Ex Parte* Letter); Telcordia Comments at 2-5.

partner.²⁵³ We expect that interconnected VoIP providers will continue to route traffic consistent with existing guidelines and practices.²⁵⁴

71. We observe that in January 2014, the Commission initiated a proceeding inviting interested providers to submit detailed proposals to test real-world applications of planned changes in technology that are likely to have tangible effects on consumers.²⁵⁵ These voluntary service-based experiments will examine the impacts of replacing existing customer services with IP-based alternatives in discrete geographic areas or ways.²⁵⁶ As part of this proceeding and subsequent experiments, the Commission will evaluate any issues that may arise with call routing.²⁵⁷ In addition, the Commission held a workshop to facilitate the design and development of a Numbering Testbed to enable research into numbering in an all-IP network in March 2014.²⁵⁸ Thus, given the Commission's ongoing examination of issues relating to the transition to IP-based networks, including call routing issues,²⁵⁹ we conclude that the Commission's open proceedings addressing systematic reform are the most appropriate venue to address any call routing concerns stemming from interconnected VoIP providers obtaining numbers directly from the Numbering Administrators. However, as underscored in Commission orders, any call delivery failures have significant public interest ramifications.²⁶⁰ Therefore, the Commission stands ready to address any problems associated with interconnected VoIP providers' direct access to numbers that negatively affect the integrity of routing and call delivery processes.

²⁵³ See Neustar Comments at 16; Telcordia Comments at 3-4.

²⁵⁴ See, e.g., Telcordia Comments at 4-5 (“[A]s long as VoIP providers, like all other carriers with access to numbering resources, ensure that their numbering and routing data is accurately input and timely updated in existing industry databases, call routing and tracking should not be a problem.”); NTCA Reply at 5; XO Reply at 8; Vonage Reply at 2 (stating that the Commission should ensure that VoIP providers are subject to the same routing requirements as carriers and need not adopt unusual or unnecessary routing schemes).

²⁵⁵ See *Technology Transitions Order*, 29 FCC Rcd 1433.

²⁵⁶ *Id.* at 1436, para. 5.

²⁵⁷ *Id.* at 1530, App. B, para. 43.

²⁵⁸ See *FCC Chief Technologist to Host Numbering Testbed Workshop*, WC Docket No. 13-97, Public Notice, 29 FCC Rcd 2115 (Feb. 28, 2014); *Technology Transitions Order*, 29 FCC Rcd at 1483, para. 152 (delegating authority to “facilitate the development of a telephony numbering testbed for collaborative, multi-stakeholder research and exploration of technical options and opportunities for telephone numbering in an all-IP network”). The Numbering Testbed will operate under the auspices of the NANC, which will provide a report to the Commission describing the testbed activities and making recommendations. See *id.* at para. 168 (encouraging the Chief Technology Officer to collaborate with experts within the Commission, the NANC, and other Commission advisory committees, industry standards organizations, academic institutions, and others with numbering management expertise).

²⁵⁹ See *Rural Call Completion Order and NPRM*, 28 FCC Rcd 16154 (requiring certain collection and reporting data on how successfully calls are being delivered, especially to rural areas; prohibiting false audible ringing; and seeking comment on additional reforms pertaining to autodialer traffic, intermediate providers, and on other safe harbor options and reporting requirements); *USF/ICC Transformation Order*, 26 FCC Rcd at 17890-904, paras. 702-35 (adopting new rules in part to address phantom traffic and re-emphasizing the Commission's longstanding prohibition on call blocking).

²⁶⁰ See *Rural Call Completion Order and NPRM*, 28 FCC Rcd at 16154, para. 1 (stating such failures include “causing rural businesses to lose customers, cutting families off from their relatives in rural areas, and creating potential for dangerous delays in public safety communications in rural areas,” requiring certain collection and reporting data on how successfully calls are being delivered, especially to rural areas); see also *Developing a Unified Intercarrier Compensation Regime, Establishing Just and Reasonable Rates for Local Exchange Carriers*, CC Docket No. 01-92, WC Docket No. 07-135, Declaratory Ruling, 27 FCC Rcd 1351, 1356, para. 12 n.37 (Wireline Comp. Bur. 2012) (*2012 Call Completion Declaratory Ruling*).

6. Transitioning to Direct Access

72. In the *Direct Access NPRM*, the Commission recognized that allowing direct access to numbers by entities lacking state certification could affect existing revenue streams for companies that currently provide wholesale services to interconnected VoIP providers.²⁶¹ The Commission also recognized that transferring numbers from one provider to another could potentially present logistical challenges, at least if the volume of numbers to be transferred in a rate center is large.²⁶² The Commission therefore sought comment on whether any adopted changes should be made on a gradual or phased-in basis and, if so, what would be appropriate timeframes and limits for a graduated transition.²⁶³ In addition, the Commission sought comment on other steps it should take to ensure that any transition to direct access to numbers by interconnected VoIP providers occurs without unnecessary disruption to consumers or the industry.²⁶⁴

73. Few commenters addressed this issue or advocated that the rules should provide for a graduated or staged-in implementation.²⁶⁵ Level 3, expressing concerns about the orderliness and timeline of the transition and possible logistical challenges of transferring large volume of numbers, urged that the rules not take effect until at least 90 days after adoption.²⁶⁶ Intelepeer contended that the rules could be implemented within 18 months after issuance of the NPRM, and within six months after the trial ended.²⁶⁷

74. After analyzing the record and lessons learned from the Direct Access Trial, we conclude that we need not phase in the rule changes that allow interconnected VoIP providers to obtain numbers directly from the Numbering Administrators. The industry has had ample opportunity to prepare for this change. The *Direct Access NPRM* was issued in April 2013 and the Direct Access Trial concluded more than a year ago.²⁶⁸ The Numbering Administrators and the industry will have even more time to transition to the new numbering regime, since interconnected VoIP providers must still apply for,²⁶⁹ and obtain, Commission authorization after this Order is adopted.²⁷⁰ With regard to possible logistical issues in that transition, the Direct Access Trial gave the Numbering Administrators and participants an opportunity to test the technical feasibility of providing interconnected VoIP providers direct access to numbering resources. Finally, because interconnected VoIP providers may not request more numbers than they are able to use (due to our utilization requirements), and because our porting rules provide

²⁶¹ *Direct Access NPRM*, 28 FCC Rcd at 5870, para. 65.

²⁶² *Id.*

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ *But see* Bandwidth Comments at 21 (asserting that “it is reasonable to allow the industry to adjust to a new regulatory paradigm by ensuring a gradual transition that is operationally managed according to Commission established volume and time limits”).

²⁶⁶ *See* Level 3 Comments at 10.

²⁶⁷ *See* Intelepeer Comments at 7-9.

²⁶⁸ *See* Level 3 Comments at 10 (stating that any rule change to expand access to telephone numbers to non-carriers should be done in a way that permits an orderly transition and timeline for business planning purposes).

²⁶⁹ We note that once the rules adopted in this Report and Order become effective, the waiver granted to SBCIS will expire and SBCIS must comply with the newly adopted rules in order to obtain direct access to numbers. *See SBCIS Waiver Order*, 20 FCC Rcd at 2963, para. 11 (“We grant the waiver until the Commission adopts final numbering rules regarding IP-enabled services.”). In addition, those interconnected VoIP providers that participated in the *Direct Access Trial* must comply with the rules and processes set forth in this Report and Order, once effective, in order to obtain additional numbers.

²⁷⁰ In addition, because the Commission is requiring that interconnected VoIP providers file an application for authorization before they can obtain numbers directly from the Numbering Administrators, the Commission must comply with the requirements of the Paperwork Reduction Act before the authorization process becomes effective.

additional time to accommodate requests for complex ports,²⁷¹ we expect that the Numbering Administrators' will be able to handle number requests from interconnected VoIP providers without the need for a slowed or graduated implementation.

C. Scope of Commission's Decision

75. In the *Direct Access NPRM*, the Commission proposed to allow interconnected VoIP providers to obtain direct access to numbers and sought comment on whether it should expand direct access to numbers to other types of entities that use numbers indirectly.²⁷² In particular, the Commission sought comment on whether it should expand access to numbers to all VoIP providers (interconnected and one-way) and on the types of services and applications that use numbers today, and that are likely to do so in the future.²⁷³

76. Our decision today applies solely to interconnected VoIP providers.²⁷⁴ We find that permitting interconnected VoIP providers to request and receive numbers directly from the Numbering Administrators is, in itself, a significant step that has the potential to benefit a large number of consumers.²⁷⁵ According to the *2014 FCC Local Competition Report*, the number of residential interconnected VoIP subscribers increased from 19.7 million subscribers in December 2008 to 37.7 million subscribers in December 2013.²⁷⁶ As the transition from legacy circuit-switched to broadband

²⁷¹ Compare 47 C.F.R. § 52.35(a) (establishing one business day porting interval for simple ports) with 47 C.F.R. § 52.35(d) (establishing a four business day porting interval for non-simple ports). We observe also that the NANC has adopted a "Best Practice" that permits longer intervals for port requests involving more than 50 numbers. See *Comment Sought on North American Numbering Council Proposal for Standardized Minimum Thresholds for Non-Simple Ports and "Projects,"* WC Docket No. 07-244, CC Docket No. 95-116, Public Notice, 26 FCC Rcd 13026 (Wireline Comp. Bur. 2011).

²⁷² *Direct Access NPRM*, 28 FCC Rcd at 5872-73, para. 70-71. The Commission observed that an increasingly wide array of services and applications, such as home security systems and programmable appliances, rely on telephone numbers. *Id.*

²⁷³ *Id.* at 5873, para. 71.

²⁷⁴ As defined in section 9.3 of the Commission's rules, interconnected VoIP providers are providers of a service that (1) enables real-time, *two-way* voice communications, (2) requires a broadband connection from the user's location, (3) requires Internet protocol-compatible customer premises equipment, and (4) permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network. 47 C.F.R. § 9.3. Our decision today does not apply to providers of other forms of VoIP service, including non-interconnected VoIP service, as defined under the Commission's rules for Telecommunications Relay Service. See 47 C.F.R. § 64.601(a)(15). We conclude that interconnected VoIP providers are more likely than other VoIP providers to need direct access to numbers simply because they are more likely to be used by consumers as replacements for "plain old telephone service" —POTS— and because outbound-only VoIP does not require telephone numbers. See, e.g., Brandon Widder, *How Skype Works: What's Behind the Premiere Online Calling Service* (Sept. 25, 2013), <http://www.digitaltrends.com/web/how-does-skype-work/> (noting that Skype, which allows online video calling, instant messaging, and mobile chat, can be used simply with software, a microphone and camera, and an active Internet connection). We note as well that in all of the comments and replies received in response to the *Direct Access NPRM*, only one commenter mentioned non-interconnected or one-way VoIP providers. See VON Comments at 8 (calling for non-interconnected or one-way VoIP providers to have direct access to numbers, should they choose to do so). Given the dearth of comments in the record regarding providers of VoIP services that are not interconnected VoIP, we find it reasonable to conclude that such providers' need for direct access to numbers does not rise to the level of their interconnected counterparts. For these reasons, we limit the scope of today's decision to interconnected VoIP providers.

²⁷⁵ See *supra* Section III.A.

²⁷⁶ See *Local Telephone Competition Report* at 14, Tbl. 3; *2015 Broadband Progress Report*, 30 FCC Rcd at 1393, para 26.

networks and IP-based connections for voice progresses, we expect Americans' reliance on VoIP service to increase.²⁷⁷

77. While the Commission may consider permitting other types of entities to obtain numbers directly from the Numbering Administrators in the future, we decline to do so now. The bulk of the record focuses on the benefits and risks associated with extending direct access to numbers to interconnected VoIP providers. In addition, the technical trial was limited to interconnected VoIP providers. We thus find that we have sufficient information to establish appropriate terms and conditions for interconnected VoIP providers in light of the record and the trial. However, other types of entities might warrant different conditions for obtaining numbers, and we lack an adequate record on what such conditions should be. Thus, we reject proposals to expand direct access to numbers to entities other than interconnected VoIP providers at this time.²⁷⁸

D. Legal Authority to Extend Numbering Requirements to Interconnected VoIP Providers that Choose Direct Access

78. Section 251(e)(1) of the Act, which was enacted by the Telecommunications Act of 1996 (1996 Act), gives the Commission "exclusive jurisdiction" over that portion of the North American Numbering Plan (NANP) that pertains to the United States, and provides that such numbers must be "available on an equitable basis."²⁷⁹ The Commission retains "authority to set policy with respect to all facets of numbering administration in the United States."²⁸⁰ The Commission has concluded that its numbering authority allows it to extend numbering-related requirements to interconnected VoIP providers that utilize telephone numbers.²⁸¹ Nothing in section 251(e)(1) limits access to numbers to "telecommunications carriers" or "telecommunications services," and thus in defining the underlying policies regarding access to and use of numbers, we conclude that we can provide such access directly to interconnected VoIP providers, without regard to whether they are carriers. Moreover, the obligation to ensure that numbers are available on an equitable basis is reasonably understood to include not only how numbers are made available but to whom, and on what terms and conditions. Thus, we conclude that the Commission has authority under section 251(e)(1) to extend to interconnected VoIP providers both the rights and obligations associated with using telephone numbers.

79. Some commenters assert that the Commission must classify interconnected VoIP providers as telecommunications carriers in order to authorize them access numbers directly from the

²⁷⁷ 2015 Broadband Progress Report, 30 FCC Rcd at 1393, para 26.

²⁷⁸ See, e.g., Flowroute Comments at 6; VON Comments at 8; AT&T Comments at 30 (supporting expansions as long as the numbers are used consistent with the principle of universal connectivity); Level 3 Comments at 2 (asserting that the Commission should also provide access to numbers for "inbound only" services, as such service can be used as a fundamental building block for providing interconnected VoIP service).

²⁷⁹ 47 U.S.C. § 251(e)(1).

²⁸⁰ *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Area Code Relief Plan for Dallas and Houston, Ordered by the Public Utility Commission of Texas, Administration of the North American Numbering Plan, Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, CC Docket Nos. 96-98, 95-185, and 92-237, NSD File No. 96-8, IAD File No. 94-102, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392, 19512, para. 271 (1996) (explaining that by retaining exclusive jurisdiction over numbering policy the Commission preserves its ability to act flexibly and expeditiously).

²⁸¹ See *VoIP 911 Order*, 20 FCC Rcd at 10265, para. 33 (relying on the Commission's authority over U.S. NANP numbers, particularly Congress' direction to use that authority regarding 911, to impose 911 obligations on interconnected VoIP providers, given interconnected VoIP providers' use of NANP numbers to provide service); *VoIP LNP Order*, 20 FCC Rcd at 10243, para. 22 (extending LNP requirements to interconnected VoIP providers on the basis of section 251(e)(1) authority); see also Vonage Comments at 9-10; Shockey Comments at 15; SmartEdgeNet Reply at 6-7.

Numbering Administrators, asserting that to do otherwise would allow interconnected VoIP providers the benefits of Title II classification without actually classifying interconnected VoIP providers as Title II telecommunications carriers and subjecting them to all of the requirements to which competing telecommunications carriers are subject.²⁸² NARUC and Bandwidth assert that the Commission lacks authority to extend the benefits and obligations of number portability to providers that are not telecommunications carriers and do not offer telecommunications services.²⁸³ They assert that the authority granted to the Commission in section 251(e)(1) of the Act over “those portions of the North American Numbering Plan that pertain to the United States” must be read in conjunction with section 251(e)(2), which requires that the costs of both number administration and number portability be borne by “all telecommunications carriers.”²⁸⁴ NARUC and Bandwidth assert that the broader power to administer numbers cannot be applied in a way that conflicts directly with the more specific requirements and duties specified in sections 251(b), 251(e), 153(37), and 153(51), and in particular, the number portability obligations in the Act that apply to telecommunications carriers.²⁸⁵

80. We disagree. Nothing in section 251(e) restricts the Commission’s jurisdiction to telecommunications carriers. In contrast, sections 251(a)-(c) pertain expressly to telecommunications carriers, local exchange carriers, and incumbent local exchange carriers, respectively. It is a well-understood rule of statutory construction that, when Congress includes a term in one portion of the statute but not another, it did so intentionally.²⁸⁶ Congress’s limitation in sections 251(a) through (c) shows that where—in the same statutory section—Congress wanted to limit certain rights or obligations just to telecommunications carriers or telecommunications services, it knew how to do so. The absence of any such express limitation in section 251(e)(1) supports our finding that Congress did not intend to limit the Commission’s flexibility to extend direct access to numbers to non-carrier interconnected VoIP providers.

81. Further, we do not find that extending direct access to numbers to interconnected VoIP providers conflicts with the specific provisions to which commenters cite. In particular, telecommunications carriers (and more particularly, their end-user customers) generally benefit from the telephone network, including not only the ability of the carriers’ end-user customers to receive calls placed to the telephone numbers assigned to them, but also their ability to place calls to numbers assigned to other end users, whether those end users are customers of traditional voice telecommunications carriers or interconnected VoIP providers.²⁸⁷ Thus, authorizing interconnected VoIP providers to obtain numbers directly from the Numbering Administrators under section 251(e) does not conflict with the fact that recovery of the costs of numbering administration is focused on telecommunications carriers under

²⁸² See COMPTTEL Comments at 7-9; California PUC Comments at 7-9. The Commission has not classified interconnected VoIP services as either telecommunications services or information services, and the issue remains pending before the Commission.

²⁸³ NARUC Trial Report Comments at 6-8; Bandwidth Trial Report Comments at 5.

²⁸⁴ NARUC Trial Report Comments at 10; Bandwidth Trial Report Comments at 6.

²⁸⁵ NARUC Trial Report Comments at 10; Bandwidth Trial Report Comments at 6-7. See 47 U.S.C. §§ 251(b)(2); 251(e)(2), 153(37) (“The term ‘number portability’ means the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another.”); 153(51) (The term ‘telecommunications carrier’ means any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in [section 226 of this title](#)).”).

²⁸⁶ See *Brown v. Gardner*, 513 U.S. 115, 120 (1994) (“[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”) (quoting *Russello v. United States*, 464 U.S. 16, 23 (1993)).

²⁸⁷ See, e.g., *USF/ICC Transformation Order*, 26 FCC Rcd at 17907, para. 744 (citing “analyses [that] have recognized that both parties generally benefit from participating in a call” as part of the rationale for intercarrier compensation reforms adopted there).

section 251(e)(2).²⁸⁸ Further, as the Commission found in the *VoIP LNP Order*, the language in section 251(e)(2), which phrases the obligation to contribute to the costs of numbering administration as applying to “all telecommunications carriers,” reflects Congress’s intent to ensure that no telecommunications carriers were omitted from the contribution obligation, and does not preclude the Commission from exercising its authority to require other providers of comparable services to make such contributions.²⁸⁹

82. Nor does authorizing direct access to numbers for interconnected VoIP providers under section 251(e) conflict with the fact that section 251(b)(2) addresses LECs’ obligation to allow customers to port numbers when switching from one telecommunications carrier to another.²⁹⁰ We believe that section 251(b)(2) is reasonably understood simply as reflecting a requirement that Congress anticipated as necessary to promote competition in local markets, rather than reflecting any inherent Congressional judgment regarding the universe of entities that might have direct access to telephone numbers.²⁹¹ And in any case, the Commission has required service providers that have not been found to be LECs, but that are expected to compete against LECs, to comply with the LNP obligations set forth in section 251(b)(2).²⁹² Thus, because we conclude that the Commission has authority under section 251(e)(1) to extend the numbering requirements discussed above to interconnected VoIP providers, we find it unnecessary to first determine the classification of interconnected VoIP service, and decline to do so here.

E. Enabling Direct Access to p-ANI Codes for VoIP Positioning Center Providers

83. Under the Commission’s rules, applicants for p-ANI codes, like applicants for numbers, must provide evidence that they are authorized to provide service in the area in which they are requesting codes.²⁹³ As discussed above, telecommunications carriers are typically required to provide either (1) a Commission license or (2) a CPCN issued by a state regulatory commission in order to obtain numbers from the Numbering Administrators. However, in October 2008, as part of its implementation of the NET 911 Act,²⁹⁴ the Commission granted interconnected VoIP providers the right to obtain p-ANI codes without such authorization, for the purpose of providing E911 services.²⁹⁵ The Commission did not, in that Order, extend this right to VPC providers; it sought comment on this issue instead in the *Direct*

²⁸⁸ See, e.g., *TOPUC v. FCC*, 183 F.3d 393, 427-30 (5th Cir. 1999) (upholding Commission universal service contribution requirements on paging carriers against APA challenges, as well as various Constitutional challenges, because paging carriers benefit from the networks that universal service funds support); cf. *Rural Cellular Ass’n v. FCC*, 685 F.3d 1083, 1090-91 (D.C. Cir. 2012) (citing *TOPUC v. FCC* and rejecting Constitutional challenges to the Commission’s universal service contributions requirements in part because the contributors benefit from the supported networks).

²⁸⁹ See *VoIP LNP Order*, 20 FCC Rcd at 10247, para. 28 (“Thus, the language does not circumscribe the class of carriers that may be required to support numbering administration.”).

²⁹⁰ See 47 U.S.C. § 251(b)(2) (imposing number portability obligations on LECs); *id.* § 153(37) (defining “number portability”).

²⁹¹ See, e.g., *Telephone Number Portability*, CC Docket No. 95-116, Third Report and Order, 13 FCC Rcd 11701, 11702-703, para. 3 (1998) (explaining that “Congress recognized that the inability of customers to retain their telephone numbers when changing local service providers hampers the development of local competition” and that “[t]o address this concern, Congress added section 251(b)(2) to the 1934 Act”).

²⁹² See *VoIP LNP Order*, 20 FCC Rcd at 10241, para. 19; *Telephone Number Portability*, CC Docket No. 95-116, RM 8535, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8431-32, para. 153 (1996) (extending LNP obligations to CMRS providers under section 1, 2, 4(i), and 332 of the Act); see also 47 U.S.C. § 251(b)(2) (imposing the duty to provide number portability on local exchange carriers).

²⁹³ See App. B, Final Rules; 47 C.F.R. § 52.15(g)(2).

²⁹⁴ See New and Emerging Technologies 911 Improvement Act of 2008, Pub. L. No. 110-283, 122 Stat. 2620 (2008) (NET 911 Act).

²⁹⁵ *Implementation of the NET 911 Improvement Act of 2008*, WC Docket No. 08-171, Report and Order, 23 FCC Rcd 15884, 15892-97, paras. 21-29 (2008) (*NET 911 Order*).

Access NPRM.²⁹⁶ Specifically, the Commission sought comment on whether allowing VPC providers access to p-ANI codes would enhance public safety by further ensuring that emergency calls are properly routed to trained responders of the PSAPs, and whether there are any unique technical characteristics of p-ANI codes that make them different from the numbers currently included in section 52.15(g)(2)(i).²⁹⁷ The Commission also sought comment on whether permitting VPCs direct access to p-ANI codes would encourage the continued growth of interconnected VoIP services.²⁹⁸ At the same time, the Commission granted Telecommunication Systems, Inc. (TCS), a VPC provider, a limited waiver of section 52.15(g)(2)(i) of the Commission's rules so that it could obtain p-ANI codes in South Carolina and in other states where it could not obtain state certification to show that it was authorized to provide service.²⁹⁹ The Commission limited the scope and duration of the waiver to such time as it addresses whether section 52.15(g)(2)(i) should be modified to allow all providers of VPC service to directly obtain p-ANI codes.

84. As we discuss below, and based upon the record, we find that public safety and efficient p-ANI administration considerations necessitate a revision of our rules to permit VPC providers to obtain direct access to p-ANI codes for use in the delivery of E911 services in those states where VPC providers cannot obtain certification.³⁰⁰ We disagree with TCS's assertions that requiring VPC providers to obtain state certifications serves no purpose,³⁰¹ and that state certification procedures are simply not designed to determine the suitability of a VPC that typically does not provide retail service and over whom the state commissions have little or no jurisdiction.³⁰² Rather, we agree with Intrado and recognize the importance of state commissions in certifying and regulating 911 service providers.³⁰³ As such, we decline to adopt TCS's proposals to waive the authorization requirement in section 52.15(g)(2)(i) in states that do offer certification, or to provide a national authorization for VPCs.³⁰⁴ Instead, we revise our rules to permit

²⁹⁶ As the Commission explained, VPC providers typically work with interconnected VoIP providers to provide E911 access to customers. *Direct Access NPRM*, 28 FCC Rcd at 5874, para. 76. When an interconnected VoIP customer makes a 911 call, the interconnected VoIP provider's softswitch or call controller sends a query to the VPC, asking for information as to where to route the 911 call. The VPC responds with call routing instructions for the softswitch and a ten-digit p-ANI code, selected from a pool of numbers, for the appropriate PSAP. The softswitch or call controller does not itself use the p-ANI code for routing, but instead forwards it to various other elements of the E911 system, such as the Selective Router, where it is used for proper routing of the call and determining the caller's location for the PSAP.

²⁹⁷ *Direct Access NPRM*, 28 FCC Rcd 5875, para. 79; *see also supra* note 6.

²⁹⁸ *Id.*

²⁹⁹ The waiver permitted TCS to show that it could not obtain state certification by demonstrating that the state does not certify VPC providers. *Id.* at 5886, para. 114.

³⁰⁰ *See, e.g.*, Intrado Comments at 4 (acknowledging that there may be instances where state certification is not permitted or otherwise not appropriate and in those instances, agreeing that the Commission may be needed as a "regulatory 'backstop' to ensure that there is no jurisdictional gap between the exercise of federal and state authority").

³⁰¹ *See* TCS Comments at 4 (arguing that state certification is a burdensome and costly process, and typically does not focus on issues of relevance with regard to whether an entity should be eligible to provide VPC service). TCS indicates that in order to maintain its state certifications, it must make approximately 490 monthly and annual state level reports, and pay annual fees in all of its jurisdiction. *Id.* at 7.

³⁰² *Id.* at 4-5.

³⁰³ *See* Intrado Reply at 3-4 (pointing to the importance of state commissions in certifying and regulating 911 service providers, bringing together a knowledge of state-specific needs and the ability to ensure reliable service, and arguing that state commissions should retain the primary responsibility for evaluating and certifying VPCs to receive access to number resources used to complete 911 calls).

³⁰⁴ As such, we deny TCS's Petition for Waiver of our rules.

VPC's to request p-ANI codes from the RNA for public safety purposes in states where a provider of VPC service can demonstrate that it cannot obtain state certification because the state does not certify providers of VPC service.

85. Public interest considerations necessitate this modification of our rules.³⁰⁵ The record demonstrates that the inability to obtain p-ANI codes to provide VPC services may disrupt E911 service.³⁰⁶ As TCS explains, it supports approximately 50 percent of all U.S. wireless E911 calls, serving over 140 million wireless and IP-enabled devices.³⁰⁷ One of the main purposes of its VPC service is to provide call routing instructions to the VoIP service provider's softswitch so that E911 calls can be routed to the appropriate PSAP.³⁰⁸ P-ANI codes provide the means for that communication.³⁰⁹ TCS asserts that after extensive and expensive testing of each p-ANI code by the VPC provider, the code is assigned to a unique PSAP.³¹⁰ The VPC provider then tests these p-ANI codes with a gateway service provider to make sure that the codes route to the proper PSAP.³¹¹ TCS further explains that it obtains p-ANI codes from a fixed pool that is shared by multiple VPC softswitches.³¹² Approximately ten p-ANI codes are assigned per PSAP. Once tested, these codes can be used simultaneously by multiple service providers.³¹³ TCS argues that if it were unable to obtain its own p-ANI codes, nomadic VoIP providers would have to obtain, test, manage, and deploy their own p-ANI codes, requiring each PSAP to test p-ANI codes, at considerable time and expense, with "dozens (or hundreds)" of nomadic interconnected VoIP service

³⁰⁵ See 47 U.S.C. § 251(e)(1) (granting the Commission authority over that portion of the NANP that pertains to the United States); see also *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers; Area Code Relief Plan for Dallas and Houston, Ordered by the Public Utility Commission of Texas; Administration of the North American Numbering Plan; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, CC Docket Nos. 96-98, 95-185, and 92-237, NSD File No. 96-8, IAD File No. 94-102, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392, 19512, para. 271 (1996) (retaining Commission authority to set policy with respect to all facets of numbering administration in the United States). We observe that permitting VPC providers to obtain direct access to p-ANI codes for use in the delivery of E911 services in those states where VPC providers cannot obtain state certification is also consistent with our statutory directive to promote "safety of life and property through the use of wire and radio communications." 47 U.S.C. § 151.

³⁰⁶ See TCS Comments at 5-7 (explaining that failure to allow VPCs access to p-ANI codes would make it more difficult for TCS to provide E911 capabilities, which Commission regulations require it to provide to interconnected VoIP service providers on a reasonable basis); *id.* at 6 (explaining that allowing VPCs access to p-ANI codes would enhance public safety by further ensuring that emergency calls are properly routed to the appropriate PSAPs); see also Letter from H. Russell Frisby, Jr., Counsel for TeleCommunication Systems, Inc., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200 (filed May 11, 2009) (TCS May 11, 2009 *Ex Parte* Letter) (stating that "APCO International believes that if VPCs are forced to discontinue services to [VoIP Service Providers] VoIP consumers may be at risk when calling 9-1-1").

³⁰⁷ TCS Comments at 2.

³⁰⁸ TCS May 11, 2009 *Ex Parte* Letter at n.3.

³⁰⁹ *Id.*

³¹⁰ *Id.*

³¹¹ *Id.* at n.8 (noting that the reality is that almost all VoIP providers lack the resources to acquire, test, and manage p-ANI codes and the associated PSAP relationship).

³¹² *Id.* at n.3.

³¹³ *Id.* TCS notes that although it is impossible to address the impact of VPCs on number conservation with complete precision, it calculates that a VPC could serve the entire country with less than 1% of the p-ANI resources required by VoIP providers to accomplish the same services. *Id.* at 5.

providers that might never actually use the p-ANI codes assigned to them.³¹⁴ This process, it predicts, would potentially exhaust the reservoir of assignable p-ANI codes³¹⁵ and create disruption, confusion, and even danger to our E911 system.³¹⁶ TCS asserts that allowing VPCs access to p-ANI codes would enhance public safety by ensuring that emergency calls are properly routed to the appropriate PSAPs,³¹⁷ and help to encourage the continued growth of VoIP services by making it easier for small interconnected VoIP service providers to rely on VPCs.³¹⁸

86. We acknowledge TCS's assertion that not providing a federal regulatory backstop in cases where state certification is unavailable runs counter to the public interest by making it more difficult for TCS to fulfill its regulatory obligations to provide E911 capabilities to interconnected VoIP service providers.³¹⁹ Further, we agree that the alternative of continuing to require every small interconnected VoIP service provider to undertake the time and expense to secure p-ANIs themselves in states that do not certify VPCs is unnecessary and would only serve to hamper their operations.³²⁰ We concur with TCS that requiring interconnected VoIP providers to obtain p-ANI codes they might never use would be inefficient and would accelerate the exhaust of this valuable resource. While we are skeptical that "dozens (or even hundreds)" of individual VoIP service providers would individually undertake to deploy their own multi-jurisdictional, p-ANI-based positioning solutions, we do recognize the economies of scale and the efficient use of limited numbering resources that result when a VPC's pool of p-ANIs is shared among multiple VoIP service providers.

87. We decline to establish a separate Commission certification process to allow VPC providers direct access to p-ANI codes where states do not offer their own certification process for VPCs, as suggested by Intrado.³²¹ TCS's comments reflect that, at the time of filing, it had obtained certification in 40 states.³²² To date, we have not received additional requests from TCS or any other VPC provider under the temporary waiver. Therefore, we do not find that the benefits of establishing and requiring a separate certification process for VPCs outweigh the burdens of doing so at this time. Further, we also observe that, as p-ANIs are "non-dialable" numbers with unique technical characteristics that make them different from the numbers currently included in section 52.15(g)(2), granting VPCs direct access to p-ANI codes in states where certification is not available would not affect the pool of "dialable" numbers and would thus not affect number exhaust.³²³ Today's modification to our rules—which allow a VPC provider unable to demonstrate authorization to provide service in a state to demonstrate instead that the state does not certify VPC providers in order to request p-ANI codes directly from the Numbering Administrators for purposes of providing E-911 service—is limited. It only applies to circumstances in which a VPC provider demonstrates that it cannot obtain p-ANI codes in a particular state because the state does not certify VPC providers. A VPC provider may make this showing, for example, by providing

³¹⁴ *Id.* at 4. TCS notes that most VoIP providers are too small to undertake the certification and testing efforts and without the ability to rely on VPCs, those providers might have to choose between limiting their operations and ignoring their statutory obligations. *Id.* at 4-5.

³¹⁵ *Id.* at 4.

³¹⁶ *Id.* at 5.

³¹⁷ See TCS Comments at 6.

³¹⁸ *Id.* at 7.

³¹⁹ See *id.* at 5.

³²⁰ See *id.*

³²¹ See Intrado Comments at 4-5 (proposing that the Commission convene a federal advisory committee to set the guidelines by which certifications would be granted).

³²² See TCS Comments at 4.

³²³ See *id.* at 7.

the RNA with a denial from a state commission with the reason for the denial being that the state does not certify VPC providers, or a statement from the state commission or its general counsel that it does not certify VPC providers. Unlike the limited waiver granted to TCS in the *Direct Access NPRM*, we require the VPC provider to make this showing directly to the RNA. Upon such a showing to the RNA, the VPC provider may obtain p-ANI codes in that particular state.

IV. PROCEDURAL MATTERS

A. Regulatory Flexibility Analysis

88. As required by the Regulatory Flexibility Act (RFA),³²⁴ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Direct Access NPRM*.³²⁵ The Commission sought written public comment on the possible significant economic impact on small entities regarding the proposals addressed in the *Direct Access NPRM*, including comments on the IRFA. Pursuant to the RFA, a Final Regulatory Flexibility Analysis is set forth in Appendix C.

B. Paperwork Reduction Act of 1995 Analysis

89. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

90. In this document, we establish a process to authorize interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators, rather than through carrier affiliates or partners. We have assessed the effects of these rules and find that any burden on small businesses and other small entities will be minimal because the decision to apply for Commission authorization to obtain numbers directly from the Numbering Administrators is strictly voluntary. Interconnected VoIP providers, including small businesses, may continue to obtain numbers through numbering partners. Moreover, the Commission has attempted to ease the administrative burden on small entities that do decide to submit Numbering Authorization Applications by streamlining the application process as much as possible, including the establishment of a module within the Electronic Comment Filing System that facilitates filing of applications electronically.

C. Congressional Review Act

91. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

D. Accessible Formats

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

V. ORDERING CLAUSES

93. Accordingly, IT IS ORDERED that pursuant to Sections 1, 3, 4, 201-205, 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 303(r), the

³²⁴ *See* 5 U.S.C. § 603.

³²⁵ *Direct Access NPRM*, 28 FCC Rcd at 5897-915, Appx. B.

Report and Order hereby IS ADOPTED and Part 52 of the Commission's Rules, 47 C.F.R. Part 52, IS AMENDED as set forth in Appendix B. The Report and Order shall become effective 30 days after publication in the Federal Register, except for 47 C.F.R. §§ 52.15(g)(2)-(g)(3), as amended in Appendix B, which shall become effective upon announcement in the Federal Register of OMB approval and an effective date of those rules.

94. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 3, 4, 201-205, 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 303(r), the Petition of TeleCommunication Systems, Inc. and HBF Group, Inc. for Waiver of Part 52 of the Commission's Rules, filed February 20, 2007 in CC Docket No. 99-200, and the Petition of Vixxi Solutions, Inc. for Limited Waiver of Number Access Restrictions, filed September 8, 2008 in CC Docket No. 99-200 ARE DENIED to the extent set forth herein, effective upon release.

95. IT IS FURTHER ORDERED that pursuant to the authority contained in sections 1, 3, 4, 201-205, 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 303(r), the Petitions for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Numbering Resources filed in CC Docket No. 99-200 by RNK Inc. on February 4, 2005; Nuvio Corporation on February 15, 2005; Dialpad Communications, Inc. on March 1, 2005; UniPoint Enhanced Services d/b/a PointOne on March 2, 2005; VoEX, Inc. on March 4, 2005; Vonage Holdings Corp. on March 4, 2005; Qwest Communications Corporation on March 29, 2005; CoreComm-Voyager, Inc. on April 22, 2005; Net2Phone Inc. on May 5, 2005; WilTel Communications, LLC on May 9, 2005; Constant Touch Communications on May 23, 2005; Frontier Communications of America, Inc. on August 29, 2006, SmartEdgeNet, LLC on March 6, 2012; Millicorp, LLC on March 14, 2012, and Bandwidth.com, Inc. on June 13, 2012 ARE DISMISSED AS MOOT, effective upon release.

96. IT IS FURTHER ORDERED that, pursuant to sections 1, 4(i), 4(j), 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i)-(j), 251, 303(r), and sections 52.11(b) and 52.25(d) of the Commission's rules, 47 C.F.R. §§ 52.11(b), 52.25(d), the North American Numbering Council SHALL SUBMIT its recommendations to the Commission within 180 days of the release date of this Report and Order, as discussed in paragraph 60 of this Report and Order.

97. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**List of Commenters****Commenters**

AT&T Services, Inc. (AT&T)
Bandwidth.com, Inc. (Bandwidth)
California Public Utilities Commission (California PUC)
CenturyLink
Comcast Corporation (Comcast)
COMPTEL
Flowroute LLC (Flowroute)
GVNW Consulting, Inc. (GVNW)
HyperCube Telecom, LLC (HyperCube)
Intelepeer, Inc. (Intelepeer)
Interisle Consulting Group LLC, Aero Communications LLC and Terra Nova Telecom
Level 3 Communications, LLC (Level 3)
Michigan Public Service Commission (Michigan PSC)
Neustar, Inc. (Neustar)
New Jersey Division of Rate Counsel
NTCA – The Rural Broadband Association (NTCA)
Pennsylvania Public Utility Commission (Pennsylvania PUC)
Public Service Commission of Wisconsin, The Oregon Public Utility Commission, the Idaho Public Utilities Commission, the Nebraska Public Service Commission and the Minnesota Department of Commerce (Joint State)
Shockey Consulting
SmartEdgeNet, LLC (SmartEdgeNet)
Spencer Telecom, LLC (Spencer)
Telcordia Technologies, Inc. d/b/a iconectiv (Telcordia or iconectiv)
TeleCommunications Systems, Inc. (TCS)
Terra Nova Telecom, Inc. (Terra Nova)
Texas 9-1-1 Alliance, the Texas Commission of State Emergency Communications, and the Municipal Emergency Communication Districts Association (Texas 9-1-1 Entities)
Verizon and Verizon Wireless (Verizon)
Voice on the Net Coalition (VON)
Vonage Holdings Corp. (Vonage)

Reply Comments

Alliance for Telecommunications Industry Solutions (ATIS)
AT&T
Bandwidth.com
Comcast
COMPTEL
HyperCube
Intrado Inc. (Intrado)
Level 3
New Jersey Division of Rate Counsel and the National Association of State Utility Consumer Advocates
NTCA
Pennsylvania PUC
SmartEdgeNet
Vonage
Washington Utilities and Transportation Commission (WUTC)

Windstream Corporation (Windstream)
XO Communications, LLC (XO)

APPENDIX B

Final Rules

PART 52 – NUMBERING

1. The authority citation for Part 52 continues to read as follows:

AUTHORITY: Sections 1, 2, 4, 5, 48 Stat. 1066, as amended; 47 U.S.C. § 151, 152, 154, 155 unless otherwise noted. Interpret or apply secs. 3, 4, 201-05, 207-09, 218, 225-27, 251-52, 271 and 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 153, 154, 201-05, 207-09, 218, 225-27, 251-52, 271 and 332 unless otherwise noted.

Subpart A – Scope and Authority

2. Amend Section 52.5 to add new paragraph (b), redesignate paragraphs (b) and (c) and paragraphs (c) and (d), redesignate paragraph (i) as paragraph (e), redesignate paragraphs (d)-(h) as paragraphs (f)-(j), and revise new paragraphs (b), (e), (i), and (j) to read as follows:

§ 52.5 Definitions

(b) *Interconnected Voice over Internet Protocol (VoIP) service provider.* The term “interconnected VoIP service provider” is an entity that provides interconnected VoIP service, as that term is defined in 47 U.S.C. § 153(25).

(c) *North American Numbering Council (NANC).* ***

(d) *North American Numbering Plan (NANP).* ***

(e) *Service provider.* The term “service provider” refers to a telecommunications carrier or other entity that receives numbering resources from the NANPA, a Pooling Administrator or a telecommunications carrier for the purpose of providing or establishing telecommunications service. For the purposes of this part, the term “service provider” includes an interconnected VoIP service provider.

(f) *State.* ***

(g) *State Commission.* ***

(h) *Telecommunications.* ***

(i) *Telecommunications carrier or carrier.* A “telecommunications carrier” or “carrier” is any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in 47 U.S.C. 226(a)(2)). For the purposes of this part, the term “telecommunications carrier” or “carrier” includes an interconnected VoIP service provider.

(j) *Telecommunications service.* The term “telecommunications service” refers to the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. For purposes of this part, the term “telecommunications service” includes interconnected VoIP service as that term is defined in 47 U.S.C. § 153(25).

Subpart B – Administration

3. Amend Section 52.15 to revise paragraphs (g)(1) and (g)(2), redesignate paragraphs (g)(3)-(g)(5) as paragraphs (g)(4)-(g)(6), and add new paragraph (g)(3) to read as follows:

§52.15 Central office code administration

* * * * *

(g) Applications for Numbering Resources.

(1) *General requirements.* An applicant for numbering resources must include in its application the applicant's company name, company headquarters address, OCN, parent company's OCN(s), and the primary type of business in which the numbering resources will be used.

(2) *Initial numbering resources.* An applicant for initial numbering resources must include in its application evidence that the applicant is authorized to provide service in the area for which the numbering resources are requested; and that the applicant is or will be capable of providing service within sixty (60) days of the numbering resources activation date. A provider of VoIP Positioning Center (VPC) services that is unable to demonstrate authorization to provide service in a state may instead demonstrate that the state does not certify VPC service providers in order to request pseudo-Automatic Numbering Identification (p-ANI) codes directly from the Numbering Administrators for purposes of providing 911 and E-911 service.

(3) *Commission authorization process.* A provider of interconnected VoIP service may show a Commission authorization obtained pursuant to this paragraph as evidence that it is authorized to provide service under paragraph (g)(2).

(i) *Contents of the application for interconnected VoIP provider numbering authorization.* An application for authorization must reference this section and must contain the following:

(A) The applicant's name, address, and telephone number, and contact information for personnel qualified to address issues relating to regulatory requirements, compliance with Commission's rules, 911, and law enforcement;

(B) An acknowledgment that the authorization granted under this paragraph is subject to compliance with applicable Commission numbering rules; numbering authority delegated to the states; and industry guidelines and practices regarding numbering as applicable to telecommunications carriers;

(C) An acknowledgement that the applicant must file requests for numbers with the relevant state commission(s) at least 30 days before requesting numbers from the Numbering Administrators;

(D) Proof that the applicant is or will be capable of providing service within sixty (60) days of the numbering resources activation date in accordance with paragraph (g)(2) of this section;

(E) Certification that the applicant complies with its Universal Service Fund contribution obligations under 47 C.F.R. Part 54, Subpart H, its Telecommunications Relay Service contribution obligations under 47 C.F.R. § 64.604(c)(5)(iii), its NANP and LNP administration contribution obligations under 47 C.F.R. §§ 52.17 and 52.32, its

obligations to pay regulatory fees under 47 C.F.R. § 1.1154, and its 911 obligations under 47 C.F.R. Part 9; and

(F) Certification that the applicant possesses the financial, managerial, and technical expertise to provide reliable service. This certification must include the name of applicant's key management and technical personnel, such as the Chief Operating Officer and the Chief Technology Officer, or equivalent, and state that none of the identified personnel are being or have been investigated by the Federal Communications Commission or any law enforcement or regulatory agency for failure to comply with any law, rule, or order; and

(G) Certification pursuant to §§ 1.2001-.2002 of this chapter that no party to the application is subject to a denial of Federal benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1988. *See* 21 U.S.C. § 862.

(ii) An applicant for Commission authorization under this section must file its application electronically through the "Submit a Non-Docketed Filing" module of the Commission's Electronic Comment Filing System (ECFS). Once the Commission reviews the application and assigns a docket number, the applicant must make all subsequent filings relating to its application in this docket. Parties may file comments addressing an application for authorization no later than 15 days after the Commission releases a public notice stating that the application has been accepted for filing, unless the public notice specifies a different filing date.

(iii) An application under this section is deemed granted by the Commission on the 31st day after the Commission releases a public notice stating that the application has been accepted for filing, unless the Wireline Competition Bureau (Bureau) notifies the applicant that the grant will not be automatically effective. The Bureau may halt this auto-grant process if (1) an applicant fails to respond promptly to Commission inquiries, (2) an application is associated with a non-routine request for waiver of the Commission's rules, (3) timely-filed comments on the application raise public interest concerns that require further Commission review, or (4) the Bureau determines that the application requires further analysis to determine whether granting the application serves the public interest. The Commission reserves the right to request additional information after its initial review of an application.

(iv) *Conditions applicable to all interconnected VoIP provider numbering authorizations.* An interconnected VoIP provider authorized to request numbering resources directly from the Numbering Administrators under this section must adhere to the following requirements:

(A) Maintain the accuracy of all contact information and certifications in its application. If any contact information or certification is no longer accurate, the provider must file a correction with the Commission and each applicable state within thirty (30) days of the change of contact information or certification. The Commission may use the updated information or certification to determine whether a change in authorization status is warranted;

(B) Comply with the applicable Commission numbering rules; numbering authority delegated to the states; and industry guidelines and practices regarding numbering as applicable to telecommunications carriers;

(C) File requests for numbers with the relevant state commission(s) at least thirty (30) days before requesting numbers from the Numbering Administrators;

(D) Provide accurate regulatory and numbering contact information to each state commission when requesting numbers in that state.

4. Amend Section 52.16 by removing paragraph (g).
5. Amend Section 52.17 by removing paragraph (c).

Subpart C – Number Portability

6. Amend Section 52.21 by removing paragraph (h) and redesignating paragraphs (i)–(w) as paragraphs (h)–(v).
7. Amend Section 52.32 by removing paragraph (e).
8. Amend Section 52.33 by revising paragraph (b) to read as follows:

(b) All telecommunications carriers other than incumbent local exchange carriers may recover their number portability costs in any manner consistent with applicable state and federal laws and regulations.

9. Amend Section 52.34 by adding new subsection (c) as follows:

(c) Telecommunications carriers must facilitate an end-user customer’s valid number portability request either to or from an interconnected VoIP or VRS or IP Relay provider. “Facilitate” is defined as the telecommunication carrier’s affirmative legal obligation to take all steps necessary to initiate or allow a port-in or port-out itself, subject to a valid port request, without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the NANP-based telephone number.

10. Amend Section 52.35 by removing paragraph (e)(1) and redesignating paragraphs (e)(2) and (e)(3) as (e)(1) and (e)(2), respectively.
11. Amend Section 52.36 by removing paragraph (d).

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Direct Access NPRM*.² The Commission sought written public comment on the proposals in the *Direct Access NPRM*, including comment on the IRFA. The Commission did not receive any comments on the *Direct Access NPRM* IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

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

2. Section 52.15(g)(2) of the Commission's rules limits access to telephone numbers to entities that demonstrate they are authorized to provide service in the area for which the numbers are being requested.⁴ The Commission has interpreted this rule as requiring evidence of either a state certificate of public convenience and necessity (CPCN) or a Commission license. As a practical matter, generally only telecommunications carriers are able to provide the proof of authorization required under our rules, and thus able to obtain numbers directly from the Numbering Administrators. Neither authorization is typically available in practice to interconnected VoIP providers because state commissions may lack jurisdiction to certify VoIP providers and they are not eligible for a Commission license.⁵ Also, the Commission has preempted state entry regulation of certain interconnected VoIP services to the extent that it interferes with important federal objectives.

3. *Establishing a Commission Authorization Process.* The Report and Order (Order) finds that a state or Commission authorization is necessary to protect against number exhaust and to ensure a level competitive playing field among traditional telecommunications carriers and interconnected VoIP providers. As such, today's Order establishes a Commission authorization process that will enable interconnected VoIP service providers to voluntarily request and obtain telephone numbers directly from the Numbering Administrators, subject to several conditions designed to minimize number exhaust and preserve the integrity of the numbering system. This nationwide authorization will fulfill the requirement under the Commission's rules that entities must furnish evidence of authorization in order to provide service.⁶ The Order directs and delegates authority to the Wireline Competition Bureau to implement and maintain the authorization process. Once an interconnected VoIP provider has Commission authorization to obtain numbers, it may request them directly from the Numbering Administrators. We believe that this approach will provide a uniform, streamlined process while ensuring that the integrity of our numbering system is not jeopardized. The process also provides an opportunity for states to offer their unique

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Notice of Proposed Rulemaking, Order, and Notice of Inquiry, 28 FCC Rcd 5842, 5897-915, App. B (2013) (*Direct Access NPRM*).

³ See 5 U.S.C. § 604.

⁴ 47 C.F.R. § 52.15(g)(2).

⁵ See *Direct Access NPRM*, 28 FCC Rcd at 5854, para. 20; see also, e.g., Letter from Randall B. Lowe, Counsel to SmartEdgeNet, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200 (filed June 26, 2012) (stating that at least 24 jurisdictions have precluded their utility commissions from regulating VoIP service, including issuing CPCNs); *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7613, n.178 (2000) (“[A]ll wireless carriers seeking to use spectrum to provide service in particular geographic areas must be licensed in those areas, under Title III of the Communications Act, by the Commission.”).

⁶ See *Order*, *supra* para. 22.

perspective regarding numbering resources within their states, while acting consistent with national numbering policy.

4. As part of the Commission authorization process, applicants must: (1) comply with applicable Commission rules related to numbering, including, among others, numbering utilization and optimization requirements (in particular, filing Numbering Resource Utilization Forecast (NRUF) Reports),⁷ comply with guidelines and procedures adopted pursuant to numbering authority delegated to the states, and comply with industry guidelines and practices applicable to telecommunications carriers with regard to numbering; (2) file requests for numbers with the relevant state commission(s) at least 30 days before requesting numbers from the Numbering Administrators; (3) provide contact information for personnel qualified to address issues relating to Commission rules, compliance, 911, and law enforcement; (4) provide proof of compliance with the Commission's "facilities readiness" requirement in section 52.15(g)(2) of the rules;⁸ (5) certify that the applicant complies with its Universal Service Fund obligations under 47 C.F.R. Part 54, Subpart H, its Telecommunications Relay Service contribution obligations under 47 C.F.R. § 64.604(c)(5)(iii), its NANP and LNP administration contribution obligations under 47 C.F.R. §§ 52.17 and 52.32, its obligations to pay regulatory fees under 47 C.F.R. § 1.1154, and its 911 obligations under 47 C.F.R. Part 9; and (6) certify that the applicant has the requisite technical, managerial, and financial capacity to provide service. This certification must include the name of applicant's key management and technical personnel, such as the Chief Operating Officer and the Chief Technology Officer, or equivalent, and state that none of the identified personnel are being or have been investigated by the Commission or any law enforcement or regulatory agency for failure to comply with any law, rule, or order.⁹ We believe that these requirements will allow interconnected VoIP providers to obtain numbers with minimal burden or delay while simultaneously preventing providers from obtaining numbers without first demonstrating that they can deploy and properly utilize such resources.

5. The Order finds that these terms and conditions appropriately reflect the unique circumstances that pertain to interconnected VoIP providers and are designed to expand the type of entities that can obtain numbers without unduly straining that limited resource. Requiring interconnected VoIP providers that obtain numbers directly from the Numbering Administrators to comply with the same numbering requirements and industry guidelines and practices as telecommunications carriers will help alleviate many concerns about number exhaust, ensure competitive neutrality among providers of voice

⁷ The Order also clarifies that numbers provided to carriers, interconnected VoIP providers, or other non-carrier entities by numbering partners should be reported as "intermediate," and that these entities do not qualify as "end users" or "customers" as those terms are used in the definition of "assigned numbers" in section 52.15(f)(1)(iii) of the Commission's rules. The record indicates that carriers are not reporting the use of numbers under the intermediate category of the rules consistently and that there are widely differing interpretations of the definitions of "intermediate" and "assigned" numbers and of the requirement to report numbers in the intermediate category. This clarification is therefore necessary in order to provide consistency and accuracy in number reporting and to limit telephone number exhaust.

⁸ The Order permits an interconnected VoIP provider that has obtained Commission authorization to request numbers directly to demonstrate proof of facilities readiness by (1) providing a combination of an agreement between the interconnected VoIP provider and its carrier partner and an interconnection agreement between that carrier and the relevant local exchange carrier (LEC), or (2) proof that the interconnected VoIP provider obtains interconnection with the Public Switched Telephone Network (PSTN) pursuant to a tariffed offering or a commercial arrangement (such as a Time Division Multiplexing (TDM)-to-IP or a VoIP interconnection agreement) that provides access to the PSTN. The interconnected VoIP provider need not demonstrate that the point where it delivers traffic to or accepts traffic from the PSTN is in any particular geographic location so long as it demonstrates that it is ready to provide interconnected VoIP service, which is by definition service that permits users to receive calls that originate on the PSTN and to terminate calls to the PSTN.

⁹ See *Order*, *supra* para. 24.

services, and offer greater visibility into number utilization.¹⁰ Requiring proof of compliance with the Commission's facilities readiness requirement will also ensure that only interconnected VoIP providers that are prepared to provide service can gain direct access to numbers, and help to account for the unique circumstances of interconnected VoIP providers within the market for voice services while also ensuring that calls are interconnected with the PSTN and terminated properly.

6. The 30-day notice required as a condition of authorization will allow the states to monitor number usage and raise any concerns about the request with the provider, the Commission, and the Numbering Administrators. It will further contribute to the efficient utilization of numbering resources by allowing state commissions to advise interconnected VoIP providers as to which rate centers have excess blocks of numbers available. This notice period also gives state commissions the opportunity to determine, as they currently do with carriers, whether the request is problematic for any reason, such as the provider's failure to submit timely NRUF reports or meet the utilization threshold necessary to obtain additional numbers. We do not, however, require 30-days' notice be provided to the Commission, as the Commission will have access to this information once it is made available to the Numbering Administrators.¹¹

7. This authorization process will remove regulatory barriers to efficient use of numbers and will further facilitate the creation and dissemination of innovative services and technologies that will benefit both consumers and providers.¹² In addition, we expect that allowing interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators will increase visibility and accuracy of number utilization and improve responsiveness in the number porting process by eliminating the extra time, complexity, and potential for confusion associated with the existing processes. This process will also increase the transparency of call routing, which will in turn enhance carriers' ability to ensure that calls are being completed properly. This enhanced ability is of value in addressing concerns about rural call completion. We expect that interconnected VoIP provider use of numbers obtained directly from the Numbering Administrators will enable more expedient troubleshooting of problematic calls to rural LECs that may originate from interconnected VoIP providers. We also expect that, to the extent that it facilitates direct IP interconnection, the authorization process established in the Order will result in the expansion of the broadband infrastructure necessary to support VoIP, and will further the Commission's goals of accelerating broadband deployment and ensuring that more people have access to higher quality broadband service.¹³ Further, permitting interconnected VoIP providers direct access to numbers can improve competition and benefit consumers by increasing demand for interconnected VoIP services and giving providers a greater incentive to expand their offerings to new service areas.

8. *Procedure for Requesting Commission Authorization.* In order to streamline the processing of interconnected VoIP providers' Numbering Authorization Applications, the Order establishes a mechanism for these applications within the Commission's Electronic Comment Filing System (ECFS). The Order delegates authority to the Bureau to oversee this mechanism and the processing of these applications. The mechanism established includes a "Submit a Non-Docketed Filing" module that facilitates filing of these applications into a single docket where all such applications must be filed. When making its submission, the applicant must select "VoIP Numbering Authorization

¹⁰ See Order, *supra* para. 28.

¹¹ See Order, *supra* paras. 33-35.

¹² As SmartEdgeNet explains, because "interconnected VoIP providers who do their own numbering will be identified in the Local Exchange Routing Guide ('LERG') and similar industry databases, other providers will be able to determine more easily with whom they are exchanging traffic, which should lead to the development of new and more efficient traffic exchange and call termination arrangements." SmartEdgeNet Comments at 5.

¹³ See VON Comments at 4.

Application” from the “Submit a Non-Docketed Filing” module within ECFS, or successor online-filing mechanism. The filing must include the application, as well as any attachments.

9. Bureau staff will first review VoIP Numbering Authorization Applications for conformance with procedural rules. Assuming that the applicant satisfies this initial procedural review, Bureau staff will assign the application its own case-specific docket number and release an “Accepted-For-Filing Public Notice” seeking comment on the application. The Public Notice will be associated with the docket established for the application. All subsequent filings by the applicant and interested parties related to this application must be submitted via ECFS in this docket. Parties wishing to submit comments addressing the request for authorization should do so as soon as possible, but no later than 15 days after the Commission releases an Accepted-For-Filing Public Notice, unless the Public Notice sets a different deadline. On the 31st day after an “Accepted-For-Filing Public Notice” is released, the application will be deemed granted unless the Bureau notifies the applicant that the grant will not be automatically effective. The Bureau may halt this auto-grant process if (1) an applicant fails to respond promptly to Commission inquiries; (2) an application is associated with a non-routine request for waiver of the Commission’s rules; (3) timely-filed comments on the application raise public interest concerns that necessitate further Commission review; or (4) the Bureau determines that the request requires further analysis to determine whether grant of an authorization would serve the public interest.¹⁴ To enable this process, the Order also delegates authority to the Bureau to make inquiries and compel responses from an applicant regarding the applicant and its principals’ past compliance with applicable Commission rules. Once a Numbering Authorization Application is granted or deemed granted, the applicant can immediately proceed to provide states from which it intends to request numbers the required 30-days’ notice.¹⁵ If the Bureau issues a public notice announcing that the application for authorization will not be automatically granted, the interconnected VoIP provider may not provide 30-days’ notice and obtain numbers until the Bureau announces in a subsequent order or public notice that the application has been granted. We believe that this process strikes a proper balance between expeditiously authorizing interconnected VoIP provider requests for direct access to numbers while providing an adequate opportunity to consider more fully those requests that raise concerns.

10. *Additional Requirements to Obtain Direct Access to Numbers.* In order to improve efficiency and utilization data while facilitating better predictions of number exhaust, the Commission also requires interconnected VoIP providers to furnish accurate regulatory and numbering contact information to the relevant state commission(s) when they request numbers in that state and to update this information whenever it becomes outdated. This requirement will help states to effectively and readily address matters relating to regulatory compliance, provision of 911 service, and law enforcement. It will also enable state regulators to monitor local numbering issues, which will, in turn, assist the Commission in its overall efforts to conserve numbers.

11. The Order also requires interconnected VoIP providers to utilize their own unique Operating Company Numbers (OCN) (as opposed to the OCNs of their carrier affiliates or partners) when obtaining numbers directly from the Numbering Administrators. Requiring each interconnected VoIP provider to use its own unique OCN follows the same procedure required for carriers who are already getting direct access to numbers. Additionally, requiring each interconnected VoIP service provider to show which numbers are in its own inventory—as opposed to in a carrier affiliate’s or partner’s inventories—will improve number utilization data used to predict number exhaust and enable states to more easily identify the service providers involved when porting issues arise.

12. To balance state commission concerns about customers’ expectation of access to all active N11 dialing arrangements as VoIP services become a replacement for traditional carrier service and the industry concerns about the technical feasibility of providing N11, we require interconnected VoIP

¹⁴ See Order, *supra* paras. 38-41.

¹⁵ See Order, *supra* para. 41.

providers, as a condition of maintaining their authorization for direct access to numbers, to continue to provide their customers with the ability to access 911 and 711, the Commission-mandated N11 numbers that interconnected VoIP providers are required to provide regardless of whether they obtain numbers directly or through a numbering partner. We also require interconnected VoIP providers to give their customers access to Commission-designated N11 numbers in use in a given rate center where an interconnected VoIP provider has requested numbering resources, to the extent that the provision of these dialing arrangements is technically feasible.

13. We expect that interconnected VoIP providers will notify consumers and state commissions if they cannot provide access to a particular N11 code due to technical difficulties. These requirements will allow the potential availability of these dialing arrangements until the Commission has concluded its pending rulemaking addressing the technical feasibility of interconnected VoIP providers' offering of these codes. Absent continued access to these numbers, their availability will diminish as consumers increasingly favor VoIP services over traditional telecommunications services.

14. The Order declines to adopt other proposals in the record calling for additional restrictions and conditions on interconnected VoIP providers' obtaining numbers, which are not imposed on telecommunications carriers. The Commission finds these additional restrictions to be unnecessary, with the potential to significantly disadvantage interconnected VoIP providers relative to competing carriers offering voice services. The record also does not demonstrate the need to impose additional restrictions at this time. We believe that the measures taken in the Order will sufficiently promote efficient number utilization and protect against number exhaust.

15. *Local Number Portability Obligations.* The Commission intends that users of interconnected VoIP services should enjoy the benefits of local number portability (LNP) without regard to whether the interconnected VoIP provider obtains numbers directly or through a carrier partner. As such, the Order requires telecommunications carriers that receive a valid porting request to or from an interconnected VoIP provider to take all steps necessary to initiate or allow a port-in or port-out without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the NANP-based telephone number. The Order also requires interconnected VoIP providers that obtain numbers directly from the Numbering Administrators and which do not utilize the services of a numbering partner for LNP purposes to port telephone numbers to and from a wireline or wireless carrier.

16. The Commission declines to articulate specific geographic limits on ports between an interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators and a wireline or wireless carrier at this time. Instead, the Commission directs the North American Numbering Council (NANC) to examine and address any specific considerations for interconnected VoIP provider porting both to and from wireline, wireless, and other interconnected VoIP providers. In particular, the Commission directs the NANC to examine any rate center or geographic considerations implicated by porting directly to and from interconnected VoIP providers, including the implications of rate center consolidation, as well as public safety considerations such as any Public Safety Answering Point (PSAP) and 911 issues that could arise. The Order directs the NANC to give the Commission a report addressing these issues, which includes options and recommendations, no later than 180 days from the release date of the Order.

17. *Enabling Direct Access to p-ANI Codes for VPCs.* The Order also finds that that public safety and efficient p-ANI administration considerations also necessitate a revision of our rules to permit VoIP Positioning Center (VPC) providers to obtain direct access to p-ANI codes for use in the delivery of E911 services in those states where VPC providers cannot obtain certification. Under section 52.15(g)(2) of our rules, applicants for p-ANI codes, like applicants for numbers, must provide evidence that they are authorized to provide service in the area in which they are requesting codes. We revise our rules to permit VPC's to request p-ANI codes from the Routing Number Administrator (RNA) for public safety purposes in states where a provider of VPC service can demonstrate that it cannot obtain state certification because the state does not certify providers of VPC service. A VPC provider may make this showing, for example, by providing the RNA with a denial from a state commission with the reason for

the denial being that the state does not certify VPC providers, or a statement from the state commission or its general counsel that it does not certify VPC providers. Unlike the limited waiver granted to Telecommunication Systems, Inc. (TCS) in the *Direct Access NPRM*, we require the VPC provider to make this showing directly to the RNA. Upon such a showing to the RNA, the VPC provider may obtain p-ANI codes in a particular state.¹⁶

18. The record shows that the inability to obtain p-ANI codes to provide VPC services may disrupt E911 service.¹⁷ TCS supports approximately 50 percent all of U.S. wireless E911 calls, serving over 140 million wireless and IP-enabled devices.¹⁸ One of the main purposes of its VPC service is to provide call routing instructions to the VoIP service provider's softswitch so that E911 calls can be routed to the appropriate PSAP. P-ANI codes provide the means for that communication. After extensive and expensive testing of each p-ANI code by the VPC provider, the code is assigned to a unique PSAP. The VPC provider then tests these p-ANI codes with a gateway service provider to make sure that the codes route to the proper PSAP. Approximately ten p-ANI are assigned per PSAP, which allows ten different calls from a variety of IP-enabled voice service providers to be processed simultaneously. Once tested, these codes can be used simultaneously by multiple service providers.

19. The Order acknowledges TCS's assertion that not providing a federal regulatory backstop in cases where state certification is unavailable runs counter to the public interest by making it more difficult for TCS to fulfill its regulatory obligations to provide E911 capabilities to interconnected VoIP service providers.¹⁹ Further, the Commission agrees that the alternative of continuing to require every small interconnected VoIP service provider to undertake the time and expense to secure p-ANIs themselves in states that do not certify VPCs is unnecessary and would only serve to hamper their operations.²⁰ The Order concurs with TCS that requiring interconnected VoIP providers to obtain p-ANI codes they might never use would be inefficient and would accelerate the exhaust of this valuable resource. While we are skeptical that "dozens (or even hundreds)" of individual VoIP service providers would individually undertake to deploy their own multi-jurisdictional, p-ANI-based positioning solutions, we do recognize the economies of scale and the efficient use of limited numbering resources that result when a VPC's pool of p-ANIs is shared among multiple VoIP service providers.

20. The Order declines to establish a separate Commission certification process to allow VPC providers direct access to p-ANI codes where states do not offer their own certification process for VPCs, as suggested by Intrado.²¹ TCS's comments reflect that, at the time of filing, it had obtained certification in 40 states.²² To date, the Commission has not received additional requests from TCS or any other VPC provider under the temporary waiver. Therefore, the Commission does not find that the benefits of establishing and requiring a separate certification process for VPCs outweigh the burdens of doing so at this time. Further, as p-ANIs are "non-dialable" numbers with unique technical characteristics that make them different from the numbers currently included in section 52.15(g)(2), granting VPCs direct access to

¹⁶ See *Order, supra* para. 87.

¹⁷ See TCS Comments at 5-7 (explaining that failure to allow VPCs access to p-ANI codes would make it more difficult for TCS to provide E911 capabilities, which Commission regulations require it to provide to interconnected VoIP service providers on a reasonable basis); *id.* at 6 (explaining that allowing VPCs access to p-ANI codes would enhance public safety by further ensuring that emergency calls are properly routed to the appropriate PSAPs).

¹⁸ TCS Comments at 2.

¹⁹ *Id.* at 5.

²⁰ See *id.*

²¹ See Intrado Comments at 4-5 (proposing that the Commission convene a federal advisory committee to set the guidelines by which certifications would be granted).

²² See TCS Comments at 4.

p-ANI codes in states where certification is not available would not affect the pool of “dialable” numbers and would thus not impact number exhaust.²³

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

21. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are addressed throughout the Order.

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

22. 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 adopted rules.²⁴ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”²⁵ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.²⁶ 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.²⁷

1. Total Small Businesses

23. A small business is an independent business having less than 500 employees. Nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA.²⁸ Affected small entities as defined by industry are as follows.

2. Internet Access Service Providers

24. *Internet Access Service Providers.* The rules adopted in the Order apply to Internet access service providers. The Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider’s own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,²⁹ which has an SBA small business size standard of 1,500 or fewer employees.³⁰ These are also labeled “broadband.” The latter are within the category of All Other

²³ See *supra* para. 91.

²⁴ See 5 U.S.C. § 603(b)(3).

²⁵ See *id.* § 601(6).

²⁶ See *id.* § 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.”

²⁷ See 15 U.S.C. § 632.

²⁸ See SBA, Office of Advocacy, *Frequently Asked Questions*, http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Jan. 25, 2015).

²⁹ U.S. Census Bureau, *2012 NAICS Definitions, 517110 Wired Telecommunications Carriers*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012%20NAICS%20Search> (last visited Mar. 18, 2015).

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

Telecommunications,³¹ which has a size standard of annual receipts of \$25 million or less.³² These are labeled non-broadband. According to Census Bureau data for 2007, there were 3,188 firms in the first category, total, that operated for the entire year.³³ Of this total, 3,144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1,000 employees or more.³⁴ For the second category, the data show that 1,274 firms operated for the entire year.³⁵ Of those, 1,252 had annual receipts below \$25 million per year. Consequently, we estimate that the majority of broadband Internet access service provider firms are small entities that may be affected by the rules adopted in this Order.

25. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service.

26. *Internet Publishing and Broadcasting and Web Search Portals.* Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The Commission has not adopted a size standard for entities that create or provide these types of services or applications. However, the Census Bureau has identified firms that “primarily engaged in 1) publishing and/or broadcasting content on the Internet exclusively or 2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals).”³⁶ The SBA has developed a small business size standard for this category, which is: all such firms having 500 or fewer employees.³⁷ According to Census Bureau data for 2007, there were 2,705 firms in this category that operated for the entire year.³⁸ Of this total, 2,682 firms had employment of 499 or fewer employees, and 23 firms had employment of 500 employees or more.³⁹ Consequently, we estimate that the majority of these firms are small entities that may be affected by rules adopted pursuant to the NPRM.

3. Wireline Providers

27. *Wired Telecommunications Carriers.* The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or

³¹ U.S. Census Bureau, *2012 NAICS Definitions, 517919 All Other Telecommunications*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012%20NAICS%20Search> (last visited Mar. 18, 2015).

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

³³ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

³⁴ *See id.*

³⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517919 (rel. Nov. 19, 2010) (receipts size), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

³⁶ U.S. Census Bureau, *2012 NAICS: 519130 - Internet publishing and broadcasting and web search portals*, <http://www.census.gov/econ/isp/sampler.php?naicscode=519130&naicslevel=6> (last visited Mar. 18, 2015).

³⁷ *See* 13 C.F.R. § 121.201, NAICS code 519130.

³⁸ U.S. Census Bureau, 2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 5, “Employment Size of Firms for the United States: 2007, NAICS Code 519130” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

³⁹ *Id.*

fewer employees.⁴⁰ According to Census Bureau data for 2007, there were 3,188 firms in this category, total, that operated for the entire year.⁴¹ Of this total, 3,144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1,000 employees or more.⁴² Thus, under this size standard, the majority of firms can be considered small.

28. *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 size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴³ According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers.⁴⁴ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁴⁵ Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules adopted in the Order.

29. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁶ According to Commission data,⁴⁷ 1,307 carriers reported that they were incumbent local exchange service providers.⁴⁸ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁴⁹ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by rules adopted pursuant to the Order.

30. 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.”⁵⁰ 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.⁵¹ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize

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

⁴¹ U.S. Census Bureau, 2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 5, “Employment Size of Firms for the United States: 2007, NAICS Code 517110” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

⁴² *See id.*

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

⁴⁴ Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, tbl. 5.3 (Sept. 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf (*Trends in Telephone Service*).

⁴⁵ *See id.*

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

⁴⁷ *See Trends in Telephone Service* at tbl. 5.3.

⁴⁸ *See id.*

⁴⁹ *See id.*

⁵⁰ 5 U.S.C. § 601(3).

⁵¹ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (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

that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

31. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵² According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.⁵³ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.⁵⁴ 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.⁵⁵ In addition, 72 carriers have reported that they are Other Local Service Providers.⁵⁶ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.⁵⁷ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities that may be affected by rules adopted pursuant to the Order.

32. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁸ According to Commission data,⁵⁹ 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by rules adopted pursuant to the Order.

33. *Operator Service Providers (OSPs).* Although we did not include Operator Service Providers (OSPs) as part of our Initial Regulatory Flexibility Analysis in the *Direct Access NPRM*, after further analysis we conclude that some such providers may be affected by the rules adopted in this Order. We therefore include them as part of this Final Regulatory Flexibility Analysis. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁰ According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.⁶¹

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U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b).

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

⁵³ See *Trends in Telephone Service* at tbl. 5.3.

⁵⁴ See *id.*

⁵⁵ See *id.*

⁵⁶ See *id.*

⁵⁷ See *id.*

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

⁵⁹ *Trends in Telephone Service* at tbl. 5.3.

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

⁶¹ *Trends in Telephone Service* at tbl. 5.3.

Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by rules adopted pursuant to the Order.

34. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶² According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁶³ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁴ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted in this Order.

35. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁵ According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁶⁶ Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.⁶⁷ Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the NPRM.

36. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard 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 size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁸ According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁶⁹ Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.⁷⁰ Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the NPRM.

4. Wireless Providers – Fixed and Mobile

37. *Wireless Telecommunications Carriers (except Satellite).* Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁷¹ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁷² For the category of Wireless Telecommunications Carriers (except Satellite), census data for 2007 show

⁶² See 13 C.F.R. § 121.201, NAICS code 517911.

⁶³ See *Trends in Telephone Service* at tbl. 5.3.

⁶⁴ See *id.*

⁶⁵ See 13 C.F.R. § 121.201, NAICS code 517911.

⁶⁶ See *Trends in Telephone Service* at tbl. 5.3.

⁶⁷ See *id.*

⁶⁸ See 13 C.F.R. § 121.201, NAICS code 517110.

⁶⁹ See *Trends in Telephone Service* at tbl. 5.3.

⁷⁰ See *id.*

⁷¹ U.S. Census Bureau, 2012 NAICS Definitions, *517210 Wireless Telecommunications Categories (Except Satellite)*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2012%20NAICS%20Search> (last visited Mar. 18, 2015).

⁷² 13 C.F.R. § 121.201, NAICS code 517210 (2012 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

that there were 1,383 firms that operated for the entire year.⁷³ Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1000 employees or more.⁷⁴ Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, we estimate that the vast majority of wireless firms are small.

38. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁷⁵ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁷⁶ According to Commission data, 413 carriers reported that they were engaged in wireless telephony.⁷⁷ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁷⁸ Therefore, a little less than one third of these entities can be considered small.

39. *Paging (Private and Common Carrier).* In the IRFA that was incorporated in the *Direct Access NPRM*, we included Paging (Private and Common Carrier) providers as one of the categories of small entities to which the proposed rules might have applied. Based on further analysis, we do not believe that the rules adopted in this Order will have an effect on this category of private entities. We therefore do not include them in our Final Regulatory Flexibility Analysis.

5. Satellite Service Providers

40. *Satellite Telecommunications Providers.* Although we did not include Satellite Telecommunications Providers as part of our Initial Regulatory Flexibility Analysis in the *Direct Access NPRM*, after further analysis we conclude that some such providers may be affected by the rules adopted in this Order. We therefore include them as part of this Final Regulatory Flexibility Analysis.

41. Two economic census categories address the satellite industry. The first category has a small business size standard of \$30 million or less in average annual receipts, under SBA rules.⁷⁹ The second has a size standard of \$30 million or less in annual receipts.⁸⁰

42. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”⁸¹ For this category, Census Bureau data for 2007 show that there were a total of 512 firms that operated for the entire year.⁸² Of this total, 495 firms had annual receipts of

⁷³ U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

⁷⁴ *See id.*

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

⁷⁶ *Id.*

⁷⁷ *Trends in Telephone Service* at tbl. 5.3.

⁷⁸ *Id.*

⁷⁹ 13 C.F.R. § 121.201, NAICS Code 517410.

⁸⁰ 13 C.F.R. § 121.201, NAICS Code 517919.

⁸¹ U.S. Census Bureau, *2012 NAICS Definitions, 517410 Satellite Telecommunications*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012> (last visited Mar. 18, 2015).

⁸² U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517410” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

under \$50 million, and 17 firms had receipts of over \$50 million.⁸³ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

43. The second category of All Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or Voice over Internet Protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”⁸⁴ The SBA has developed a small business size standard for this category: that size standard is \$30.0 million or less in average annual receipts.⁸⁵ According to Census Bureau data for 2007, there were 2,383 firms in this category that operated for the entire year.⁸⁶ Of these, 2,305 establishments had annual receipts of under \$10 million and 78 establishments had annual receipts of \$10 million or more.⁸⁷ Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

6. Cable Service Providers

44. *Cable and Other Program Distributors.* Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises 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 telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”⁸⁸ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was all such firms having \$13.5 million or less in annual receipts.⁸⁹ According to Census Bureau data for 2007, there were a total of 3,188 firms in this category that operated for the entire year.⁹⁰ Of this total, 2,694 firms had annual receipts of under \$10 million, and 504 firms had receipts of \$10 million or more.⁹¹ Thus, the majority of these firms can be considered small and may be affected by rules adopted pursuant to the Order.

⁸³ *Id.*

⁸⁴ U.S. Census Bureau, *2007 NAICS Definitions: 517919 All Other Telecommunications*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2007%20NAICS%20Search> (last visited Mar. 18, 2015).

⁸⁵ See 13 C.F.R. § 121.201, NAICS code 517919.

⁸⁶ U.S. Census Bureau, 2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 4, “Receipts Size of Firms for the United States: 2007, NAICS Code 517919” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

⁸⁷ *See id.*

⁸⁸ U.S. Census Bureau, 2012 NAICS Definitions, *517110 Wired Telecommunications Carriers*, (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012> (last visited Mar. 18, 2015).

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

⁹⁰ U.S. Census Bureau, 2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 4, “Receipts Size of Firms for the United States: 2007, NAICS Code 517110” (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

⁹¹ *Id.*

45. *Cable Companies and Systems.* The Commission has also 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.⁹² Industry data shows that there are 660 cable operators in the country.⁹³ Of this total, all but eleven cable operators nationwide are small under this size standard.⁹⁴ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.⁹⁵ Current Commission records show 4,945 cable systems nationwide.⁹⁶ Of this total, 4,380 cable systems have less than 20,000 subscribers, and 565 systems have 20,000 or more subscribers, based on the same records.⁹⁷ Thus, under this standard, we estimate that most cable systems are small entities.

46. *Cable System Operators.* The Communications Act of 1934, as amended, 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."⁹⁸ The Commission has determined that an operator serving fewer than 677,000 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.⁹⁹ Based on available data, we find that all but ten incumbent cable operators are small entities under this size standard.¹⁰⁰ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,¹⁰¹ and therefore we are unable to estimate

⁹² 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, MM Docket Nos. 92-266 and 93-215, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408, para. 28 (1995).

⁹³ NCTA, *Industry Data, Number of Cable Operators and Systems*, <https://www.ncta.com/industry-data> (last visited Mar. 18, 2015). Depending upon the number of homes and the size of the geographic area served, cable operators use one or more cable systems to provide video service. See *Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, MB Docket No. 12-203, Fifteenth Report, 28 FCC Rcd 10496, 10505-06, para. 24 (2013) (*15th Annual Competition Report*).

⁹⁴ These data are derived from R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857. The Commission applied this size standard to MVPD operators in its implementation of the CALM Act. See *Implementation of the Commercial Advertisement Loudness Mitigation (CALM) Act*, MB Docket No. 11-93, Report and Order, 26 FCC Rcd 17222, 17245-46, para. 37 (2011) (*CALM Act Report and Order*) (defining a smaller MVPD operator as one serving 400,000 or fewer subscribers nationwide, as of December 31, 2011).

⁹⁵ 47 C.F.R. § 76.901(c).

⁹⁶ The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on Aug. 28, 2013. A cable system is a physical system integrated to a principal headend.

⁹⁷ See *id.*

⁹⁸ 47 U.S.C. § 543(m)(2); see also 47 C.F.R. § 76.901(f) & nn.1-3.

⁹⁹ 47 C.F.R. § 76.901(f); see also *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (Cable Servs. Bureau 2001).

¹⁰⁰ These data are derived from R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

¹⁰¹ 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 § 76.901(f) of the Commission's rules. See 47 C.F.R. § 76.909(b).

more accurately the number of cable system operators that would qualify as small under this size standard.

7. All Other Information Services

47. *All Other Information Services.* The Census Bureau defines this industry as including “establishments primarily engaged in providing other information services (except news syndicates, libraries, archives, Internet publishing and broadcasting, and Web search portals).”¹⁰² Our action pertains to interconnected VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$7.0 million or less in average annual receipts.¹⁰³ According to Census Bureau data for 2007, there were 367 firms in this category that operated for the entire year.¹⁰⁴ Of these, 334 had annual receipts of under \$5 million, and an additional 11 firms had receipts of between \$5 million and \$9,999,999.¹⁰⁵ Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

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

48. In the Order, the Commission establishes a voluntary authorization process to enable interconnected VoIP providers that seek direct access to numbers and that are without a state certification to demonstrate that they are authorized to provide service under our rules. Once granted, this Commission authorization permits an interconnected VoIP provider to request numbers directly from the Numbering Administrators. The Commission expects that interconnected VoIP providers will continue to use carrier partners in some instances, and today’s Order does not prohibit those partner relationships.

49. To the extent that an interconnected VoIP provider voluntarily seeks to obtain direct access to numbers through a Commission authorization, the Commission imposes, as a condition of this authorization, the same requirements to which traditional telecommunications carriers are subject, as well as several unique conditions of access that reflect the particular circumstances of interconnected VoIP providers.

50. In order to apply for Commission authorization, interconnected VoIP providers must (1) comply with applicable Commission rules related to numbering, including, among others, numbering utilization and optimization requirements (in particular, filing NRUF Reports), comply with guidelines and procedures adopted pursuant to numbering authority delegated to the states, and comply with industry guidelines and practices applicable to telecommunications carriers with regard to numbering; (2) file requests for numbers with the relevant state commission(s) at least 30 days before requesting numbers from the Numbering Administrators on an on-going basis; (3) provide contact information for personnel qualified to address issues relating to Commission rules, compliance, 911, and law enforcement; (4) provide proof of compliance with the Commission’s “facilities readiness” requirement in section 52.15(g)(2)¹⁰⁶ of the rules; (5) certify that the applicant complies with its Universal Service Fund

¹⁰² U.S. Census Bureau, *2007 NAICS Definitions: 519190 All Other Information Services*, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=519190&search=2007%20NAICS%20Search> (last visited Mar. 18, 2015).

¹⁰³ See 13 C.F.R. § 121.201, NAICS code 519190.

¹⁰⁴ U.S. Census Bureau, *2007 Economic Census, Information: Subject Series – Establishment and Firm Size: Table 5, “Employment Size of Firms for the United States: 2007, NAICS Code 519190”* (issued Nov. 2010), <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk> (last visited Mar. 18, 2015).

¹⁰⁵ See *id.*

¹⁰⁶ See Appx. B, Final Rules.

obligations under 47 C.F.R. Part 54, Subpart H, its Telecommunications Relay Service contribution obligations under 47 C.F.R. § 64.604(c)(5)(iii), its NANP and LNP administration contribution obligations under 47 C.F.R. §§ 52.17 and 52.32, its obligations to pay regulatory fees under 47 C.F.R. § 1.1154, and its 911 obligations under 47 C.F.R. Part 9; and (6) certify that the applicant has the requisite technical, managerial, and financial capacity to provide service. This certification must include the name of the applicant's key management and technical personnel, such as the Chief Operating Officer and the Chief Technology Officer, or equivalent, and state that none of the identified personnel are being or have been investigated by the Commission or any law enforcement or regulatory agency for failure to comply with any law, rule, or order.¹⁰⁷

51. Among other things, NRUF reporting requires carriers to report how many of their numbers have been designated as “assigned” or “intermediate.” This designation affects the utilization percentage, e.g., the percentage of the total numbering inventory that is assigned to customers for use, of the reporting carrier.¹⁰⁸ An “intermediate” number is one that is made available for use by another telecommunications carrier or non-carrier, but has not necessarily been assigned to an end-user or customer.¹⁰⁹ An “assigned” number is one that has been assigned to a specific end-user or customer.¹¹⁰ The Order clarifies that numbers provided to carriers, interconnected VoIP providers, or other non-carrier entities by numbering partners should be reported as “intermediate,” and that such entities do not qualify as “end users” or “customers” as those terms are used in the definition of “assigned numbers” in section 52.15(f)(1)(iii) of the Commission's rules.¹¹¹ We find that this clarification is necessary to provide consistency and accuracy in number reporting and to limit telephone number exhaust.

52. The Order also requires interconnected VoIP providers who obtain a Commission authorization to file notices of intent to request numbers with the relevant state commissions, on an ongoing basis, at least 30 days prior to requesting numbers from the Numbering Administrators.

53. Under section 52.15(g)(2) of our rules, a provider must demonstrate that it “is or will be capable of providing service within sixty (60) days of the numbering resources activation date.”¹¹² The Order requires interconnected VoIP providers that request numbers directly from the Numbering Administrators to comply with this “facilities readiness” requirement, consistent with the requirements imposed on other providers of competitive voice services. The Order permits an interconnected VoIP provider that has obtained Commission authorization to request numbers directly to demonstrate proof of facilities readiness by (1) providing a combination of an agreement between the interconnected VoIP provider and its carrier partner and an interconnection agreement between that carrier and the relevant LEC, or (2) proof that the interconnected VoIP provider obtains interconnection with the PSTN pursuant to a tariffed offering or a commercial arrangement (such as a TDM-to-IP or VoIP interconnection agreement) that provides access to the PSTN.¹¹³

54. In order to streamline the processing of an interconnected VoIP provider's Numbering Authorization Application, the Order establishes a “Submit a Non-Docketed Filing” module within the Commission's ECFS that facilitates filing of such applications into a single docket where all such applications must be filed. The applicants will be required to select “Numbering Authorization

¹⁰⁷ See Order, *supra* para. 24.

¹⁰⁸ The numbering utilization level is calculated by dividing all *assigned numbers* by the total numbering resources in the applicant's inventory and multiplying the result by 100. See 47 C.F.R. § 52.15(g)(3)(ii).

¹⁰⁹ *Id.* § 52.15(f)(v).

¹¹⁰ *Id.* § 52.15(f)(iii).

¹¹¹ *Id.* § 52.15(f)(iii).

¹¹² *Id.* § 52.15(g)(2).

¹¹³ See Order, *supra* para. 37.

Application” from the “Submit a Non-Docketed Filing” module within ECFS, or successor online-filing mechanism. The filing must include the application, as well as any attachments. Once an interconnected VoIP provider’s authorization application is granted or deemed granted, the applicant can immediately proceed to provide states from which it intends to request numbers the required 30-days’ notice.¹¹⁴ Interconnected VoIP providers who apply for and receive Commission authorization for direct access to numbers are subject to, and acknowledge Commission enforcement authority.¹¹⁵

55. In addition to these requirements, interconnected VoIP providers seeking direct access must, as a condition of maintaining their authorization for direct access to numbers (1) provide accurate regulatory and numbering contact information to the relevant state commission(s) when they request numbers in that state and update this information whenever it becomes outdated; (2) use their own unique OCNs (as opposed to the OCNs of their carrier affiliates or partners) when obtaining numbers directly from the Numbering Administrators; and (3) continue to provide their customers with the ability to access 911 and 711, the Commission-mandated N11 numbers that interconnected VoIP providers are required to provide regardless of whether they obtain numbers directly or through a numbering partner, as well as give their customers access to Commission-designated N11 numbers in use in a given rate center where an interconnected VoIP provider has requested numbering resources,¹¹⁶ to the extent that the provision of these dialing arrangements is technically feasible.

56. The Order further imposes an affirmative obligation on telecommunications carriers to facilitate a valid porting request to or from an interconnected VoIP provider. Carriers are obligated to take all steps necessary to initiate or allow a port-in or port-out itself without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the NANP-based telephone number. An interconnected VoIP provider that has obtained its numbers directly from the Numbering Administrators and is not utilizing the services of a numbering partner for LNP purposes must port telephone numbers to and from a wireline or wireless carrier.¹¹⁷

57. The Order also permits VPC providers to obtain direct access to p-ANI codes for use in the delivery of E911 services in those states where a VPC provider can demonstrate that it cannot obtain state certification because the state does not certify providers of VPC service. A VPC provider may make this showing, for example, by providing the RNA with a denial from a state commission with the reason for the denial being that the state does not certify VPC providers, or a statement from the state

¹¹⁴ See Order, *supra* paras. 38-41.

¹¹⁵ See 47 U.S.C. § 503(b)(1) (“Any person who is determined by the Commission . . . to have . . . willfully or repeatedly failed to comply substantially with the terms and conditions of any . . . other instrument or authorization issued by the Commission . . . [or] willfully or repeatedly failed to comply with any of the provisions of this Act or of any rule, regulation, or order issued by the Commission under this Act . . . shall be liable to the United States for a forfeiture penalty.”).

¹¹⁶ In addition to 911 and 711, to date, the Commission has designated—and required carriers to provide access to—four additional N11 codes – 211, 311, 511, and 811. See *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 5572 (1997) (designating 311 for non-emergency police and other governmental services); *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Third Report and Order and Order on Reconsideration, 15 FCC Rcd 16753 (2000) (designating 211 for information and referral services and 511 for travel and information services); *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Sixth Report and Order, 20 FCC Rcd 5539 (2005) (designating 811 for state “One Call” notification systems for providing advanced notice of excavation activities to underground facility operators in compliance with the Pipeline Safety Improvement Act of 2002). The remaining N11 codes – 411 and 611 – are widely used by carriers, but have not been assigned by the Commission for nationwide use. In some states, N11 codes that have not been assigned nationally can continue to be assigned for local uses, provided that such use can be discontinued on short notice. See North American Numbering Plan Administrator website, *available at* <http://www.nanpa.com>.

¹¹⁷ See Order, *supra* paras. 54-61.

commission or its general counsel that it does not certify VPC providers. Unlike the limited waiver granted to TCS in the *Direct Access NPRM*, we require the VPC provider to make this showing directly to the RNA. Upon such a showing to the RNA, the VPC provider may obtain p-ANI codes in a particular state.¹¹⁸

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

58. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (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.¹¹⁹

59. The Commission is aware that some of the rules adopted in this Order will impact small entities by imposing costs and administrative burdens. For this reason, in reaching its final conclusions and taking action in this proceeding, the Commission has taken a number of measures to minimize or eliminate the costs and burdens generated by compliance with the adopted regulations.

60. Interconnected VoIP providers are not required to seek Commission authorization—the Order establishes a voluntary process designed to allow interconnected VoIP providers that seek direct access to obtain it. Telecommunications carriers in like positions must similarly seek state certification or a Commission license. The Order only requires those interconnected VoIP providers seeking a Commission authorization to request numbers directly from the Numbering Administrators to comply with the applicable Commission rules related to numbering, including, among others, numbering utilization and optimization requirements, complying with guidelines and procedures adopted pursuant to numbering authority delegated to the states, and complying with industry guidelines and practices applicable to telecommunications carriers with regard to numbering.¹²⁰ Although the Order requires such providers to submit specific documentation as a condition of obtaining Commission authorization, the Commission has attempted to minimize this burden by streamlining the application process as much as possible. For instance, to ease the administrative burden on small entities of producing and submitting a Numbering Authorization Application, the Commission has established within its own ECFS a module that facilitates filing of applications online.¹²¹

61. Consistent with the proposal in the *Direct Access NPRM*, the Commission considered allowing interconnected VoIP providers to file FCC Forms 499-A or 477 in place of this Numbering Authorization Application. However, the Commission ultimately concluded that the process adopted in today's Order was better targeted to demonstrating authorization of interconnected VoIP providers to provide service, as FCC Forms 499-A and 477 do not demonstrate commitments to comply with the Commission's rules and specific numbering requirements, or reflect that an applicant has the appropriate technical, managerial, and financial capacity to provide service. Moreover, as a practical matter, a new interconnected VoIP provider seeking to launch a new service may not have a Form 477 on file at the time that it seeks to obtain numbers.

62. While the Order adopts several requirements that interconnected VoIP providers must fulfill as a condition of receiving Commission authorization, the Commission declined to adopt several

¹¹⁸ See *Order*, *supra* para. 87.

¹¹⁹ 5 U.S.C. § 603(c)(1)–(c)(4).

¹²⁰ See *Order*, *supra* para. 24.

¹²¹ See *Order*, *supra* para. 38.

other proposals that would have placed a greater monetary and administrative burden on small entities, including proposals in the record that, as a condition of direct access, an interconnected VoIP provider be required to (1) transfer all of the numbers it has obtained from its numbering partners to the interconnected VoIP provider's new OCN, and (2) take numbers from certain rate centers chosen by the state commissions in more populous areas or in blocks of less than 1000 numbers.¹²² The Commission also declined to revise its current reporting requirements and adopt as requirements additional voluntary commitments imposed in the Direct Access Trial, as some commenters suggested.¹²³ The Commission concluded that additional restrictions beyond those adopted are unnecessary and would significantly burden and disadvantage small interconnected VoIP providers relative to competing carriers offering voice services. The Commission also considered, and ultimately declined to adopt further rules or take further action, pertaining to VoIP interconnection obligations, intercarrier compensation obligations, or call routing and tracking. We believe that the measures taken in this Order will promote efficient number utilization and protect against number exhaust without the need for further restrictions and regulations at this time.

63. We find also that the establishment of a Commission authorization process to enable interconnected VoIP providers to obtain direct access to numbers may lower costs for interconnected VoIP providers in some instances, by allowing them to obtain telephone numbers directly from the Numbering Administrators without having to retain the services of a carrier partner. In its comments, Vonage asserts that doing so will improve competition in the voice services market, broadening the options for consumers and reducing costs by eliminating the middleman for telephone numbers.¹²⁴ Thus, the regulations promulgated in the Order may benefit small entities financially by eliminating inefficiencies and the associated expenses.

F. Report to Congress

64. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.¹²⁵ In addition, the Commission will send a copy of the Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.¹²⁶

¹²² See Order, *supra* paras. 44, 47.

¹²³ See Order, *supra* paras. 48-49. As part of the Direct Access Trial, the Commission required participants, among other obligations, to maintain at least 65 percent number utilization across their telephone inventories, to offer VoIP interconnection to other carriers and providers, and to provide the Commission with a transition plan for migrating customers to their own numbers within 90 days of commencing that migration and every 90 days thereafter for 18 months. See Order, *supra* para. 49.

¹²⁴ Vonage Comments at 8.

¹²⁵ See 5 U.S.C. § 801(a)(1)(A).

¹²⁶ See *id.* § 604(b).

**STATEMENT OF
CHAIRMAN TOM WHEELER**

Re: *Numbering Policies for Modern Communications*, WC Docket No. 13-97, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Telephone Number Portability*, CC Docket No. 95-116, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Connect America Fund*, WC Docket No. 10-90, *Numbering Resource Optimization*, CC Docket No. 99-200.

As our communications infrastructure transitions to IP networks, the Commission has worked to preserve the values that consumers and businesses have come to expect from their networks, while unleashing new waves of better products and services made possible by these more efficient networks. Today, the Commission moves to expedite the ongoing technology transitions and enhance one of the most popular services they have already enabled: Voice over Internet Protocol (or VoIP as it's commonly known).

VoIP already accounts for nearly one-third of all local phone subscribers – 48 million connections. Interconnected VoIP providers have been able to do this despite a competitive disadvantage. Specifically, under our current rules interconnected VoIP providers have to go through a third party to obtain telephone numbers for new customers. With this item, we amend our rules to enable interconnected VoIP providers to obtain their own telephone numbers directly from the Numbering Administrators.

This promises to deliver significant benefits for consumers:

- More competition. Leveling the playing field for interconnected VoIP providers when it comes to accessing numbers will make it easier for them to compete, giving consumers more options for phone service.
- Lower prices. Allowing interconnected VoIP providers to directly access numbers should deliver cost savings for VoIP providers, which, through increased competition, we expect to be passed down to consumers.
- Better service. Direct access will promote more efficient number utilization, and eliminate the extra time, complexity, and potential for confusion associated with transferring or “porting” a customer’s existing number to or from an interconnected VoIP provider.
- Enhanced reliability. Direct access to numbers by interconnected VoIP providers will facilitate IP-to-IP interconnection, and increase the transparency of call routing. This will enhance carriers’ ability to ensure that calls are being completed properly, and allow us to address concerns about rural call completion through more expedient troubleshooting of problematic calls to rural local exchange carriers (LECs) from interconnected VoIP providers.

Let there be no mistake – numbers are a critical national resource, and we are adopting protections to ensure that only good stewards of our numbering resources have access. Applicants must agree to a number of conditions, such as certifying that they comply with Universal Service Fund and public safety obligations, giving advance notice to state commissions of number requests, and provide contact information for personnel who can address issues relating to 911, law enforcement, and regulatory compliance.

Finally, I want to call out the FCC staff for running a diligent process to make sure we get this right. They took a business-like approach of testing the proposition before proposing its rollout. Today’s action was informed by a six-month technical trial in which five interconnected VoIP provider participants obtained numbers directly from the Numbering Administrators. During the trial, over 4,500 new numbers went into service, with over 139,000 port-in requests and over 800 port-out requests, all of which were successful. There were no routing failures or billing or compensation disputes reported during the trial. The Bureau’s report concluded that it is technically feasible for interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrators and use them to provide services, and

gives me confidence that the steps we are taking today will promote competition and lead to significant consumer benefits.

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

Re: *Numbering Policies for Modern Communications*, WC Docket No. 13-97, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Telephone Number Portability*, CC Docket No. 95-116, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Connect America Fund*, WC Docket No. 10-90, *Numbering Resource Optimization*, CC Docket No. 99-200.

Protecting consumers while instituting simple, streamlined rules that promote competition and innovation based on data-driven processes are key aspects of good government. I submit that this Order embodies all of these principles.

I have long advocated modernizing our rules in a way that promotes innovation and investment in the marketplace while holding true to the core values of the Act including competition, consumer protection, universal service, and public safety. All IP networks offer more redundancy and the introduction of new, innovative services; I support this item because I believe it satisfies all of these objectives.

Before moving to a blanket Order authorizing interconnected VoIP providers to receive direct access to numbers, however, the Commission conducted a trial to determine if there were any technical concerns or issues relating to compliance with policies, such as intercarrier compensation. The Trial Report identified no such concerns. So, today, we are poised to adopt this Order and establish a permanent process for interconnected VoIP providers to receive direct access to numbers with actual data demonstrating that the process works. This will enable the Commission to proceed in a prudent and well-reasoned fashion. To me, this epitomizes good government and sound decision-making.

I am also pleased that the Order includes sufficient checks in the authorization process, including certifying compliance with our numbering rules as well as contributions to universal service to help ensure that entities are in good standing before requesting numbers. The item also ensures that the Commission has full legal authority to take action if an entity violates our numbering rules.

Additionally, the Order improves transparency of numbering allocation by clarifying when it is appropriate to designate a number as “assigned” to ensure it is being used by an end user rather than held by a provider. And I appreciate the recognition of the state role with respect to numbers and the continued federal-state partnership on this important issue.

While I am supportive of this Order, I would be remiss if I failed to mention the elephant in the room – the classification of VoIP. For over a decade, this agency has punted on this issue and, unfortunately, we continue this trend by failing to make a decision. This must end. We should make a decision, and stand by it.

I want to thank the Wireline Competition Bureau for their diligent work not only on this item, but also on the trial and Trial Report. Because of their tremendous work, we are able to move forward today. Finally, I want to recognize Matt DelNero in particular to congratulate and welcome him to his first meeting as Chief of the Wireline Competition Bureau. Thank you.

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Numbering Policies for Modern Communications*, WC Docket No. 13-97, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Telephone Number Portability*, CC Docket No. 95-116, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Connect America Fund*, WC Docket No. 10-90, *Numbering Resource Optimization*, CC Docket No. 99-200.

It was two decades ago, but I remember it like it was yesterday. My parents in Hartford, Connecticut announced that the childhood telephone number I had always known would change. Area code 203 was no more. Welcome to area code 860. This was hardly a big deal in the history of communications. But it was the first time I remember thinking about the link between place and number and community and identity.

What felt strange twenty years ago now seems quaint. Today, forty-four percent of households have cut the cord and use only wireless service. In my office, that percentage is a lot higher—and the numbers associated with our devices are a jumble of area codes from across the country. We are severing place and number like never before and the platforms we use to communicate are evolving faster than ever before—not only from wireline to wireless, but also from low-speed to high-speed. Beyond that, they are multiplying into new forms, with a range of messaging applications built into social networks and applications that may in time turn into new communications hubs.

With this rush of change, one thing is clear—it's time for the Commission to change, too. That's why today's decision is the right one.

Even better, it puts in place an idea we incubated here in our very own policy sandbox. Two years ago, we launched a trial process to see if it was technically feasible for interconnected VoIP providers to obtain access to numbering resources directly. The trial provided a proof-of-concept. It helped guide today's effort to update the authorization process so that more communications providers can access numbering resources and develop more innovative services. In addition, this effort will improve access to a key input for 911 emergency services.

The mechanics of this proceeding are complex. But at its core this decision is a simple reminder of how our networks are in a period of profound change. The communications devices in my childhood home no longer look anything like what they did twenty years ago. We can reach out and connect in ways that were unthinkable back when the area code I always knew was changed. This is change for the good. Our work here today is, too. It has my full support.

**STATEMENT OF
COMMISSIONER AJIT PAI**

Re: *Numbering Policies for Modern Communications*, WC Docket No. 13-97, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Telephone Number Portability*, CC Docket No. 95-116, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Connect America Fund*, WC Docket No. 10-90, *Numbering Resource Optimization*, CC Docket No. 99-200.

For those of us born under the Ma Bell system, today is the future. A monopoly has been replaced by hundreds of competitors. Consumers are giving up their copper landlines and embracing the IP Transition. Interconnected VoIP providers now serve a majority of residential consumers and an increasing number of enterprises.¹ And innovations, both on the network and riding over it, abound.

But the Commission's rules are stuck thirty years in the past. Despite the technological changes that are reshaping the way Americans communicate, our rules pretend that all calls originate and terminate on the public switched telephone network, that routing must be done using last-generation switches and SS7, and that telephones are tied to a particular geographic area.

It's time to modernize our rules and give interconnected VoIP providers direct access to telephone numbers so they can serve their customers without paying off "intermediate carriers"—basically middlemen that raise the cost of interconnected VoIP service. It's been over a year since the successful interconnected VoIP numbering trial and more than a decade since we started looking at the regulatory framework for IP-enabled services,² so there's nothing left to hold us back. To that end, I'm especially excited we've made clear that interconnected VoIP providers need only apply once to serve anywhere in the nation. This one-and-done system keeps regulatory barriers to telephone numbers low, which ultimately will benefit would-be competitors and competition.

I am nonetheless disappointed that we are not reforming another aspect of our numbering system: how we pay for it. The Commission established the current payment scheme in 1998, but it has come under increasing strain. One problem is that the system departs from the longstanding regulatory principle of linking costs and benefits. This means that some carriers financially benefit from the numbering system's bells and whistles (in regulatory speak: intra-provider ports and "modifies"), while their competitors must pick up the tab. Another problem is that payments are assessed on a declining and unsustainable base—telecommunications revenues—even though more and more numbers are in service. And this mismatch perversely means that carriers that make a business of vending telephone numbers may contribute nothing at all. We need to pry these rules out of the muck of the past.

I am grateful to my colleagues for accepting my suggestions to improve this order, and I want to thank the numbering team in the Wireline Competition Bureau—Randy Clarke, Marilyn Jones, Melissa Droller Kinkel, Ann Stevens, and John Visclosky—for their innumerable efforts to get this done right. Consumers benefit when we eliminate unnecessary regulatory barriers to innovation and investment, and with today's action, we're doing just that.

¹ FCC, Wireline Competition Bureau, Local Telephone Competition Status as of Dec. 31, 2013, at 14 (2014), available at <http://go.usa.gov/3yDeW>.

² *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Report, 29 FCC Rcd 927 (Wireline Comp. Bur. 2014); *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004).

**STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY**

Re: *Numbering Policies for Modern Communications*, WC Docket No. 13-97, *IP-Enabled Services*, WC Docket No. 04-36, *Telephone Number Requirements for IP-Enabled Services Providers*, WC Docket No. 07-243, *Telephone Number Portability*, CC Docket No. 95-116, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Connect America Fund*, WC Docket No. 10-90, *Numbering Resource Optimization*, CC Docket No. 99-200.

While I appreciate all of the work that has gone into this item, the obvious failure here is taking ten years to complete any proceeding. Let's put this debate in perspective: this proceeding has survived four Chairmen and two acting Chairmen; eight Commissioners; and six Wireline Bureau Chiefs. By nearly all accounts, this item, given that it does not consist of the most complex subject matter, epitomizes the federal government bureaucracy. Channeling Commissioner Pai by quoting a movie, there is an appropriate line from one of my favorites, *Grosse Pointe Blank*, when the Jeremy Piven character turns to the John Cusack character and says, "Ten Years Man! Ten! Where've you been for Ten Years?"

Substantively, the tenets of the decisions contained in this item seem anachronistic at this point in time. In fact, I must admit that I find the entire debate rooted in a technology and a system that is fading, and fading fast. Consumers, especially younger consumers, do not care about their specific telephone number, care even less about a specific area code, have little fondness for voice communications and are considering a breakup with traditional SMS texting. To be completely honest, given the use of contact lists in my smartphone and the auspices of the Internet cloud, I do not know a single telephone number, except my own. No one uses phonebooks anymore and telephone numbers are on the way out.

I am also skeptical of the justifications provided in this item. For example, the argument that VoIP providers need direct access to telephone numbers in order to compete with other modes of voice providers seems overblown given that VoIP has become mainstream in today's marketplace, even without this capability. The item notes that the number of residential interconnected VoIP subscribers increased from 19.7 million subscribers in December 2008 to 37.7 million subscribers in December 2013. Indeed, that report marked the first time that VoIP represented more than half of residential wireline connections. Moreover, the item doesn't attempt to quantify any aspect of VoIP costs to obtain numbers from other providers, mainly CLECs, although I've been told anecdotally it is about \$1 million per month for one major provider.

Nonetheless, it is time to bring this proceeding to a close and I will support the item because I don't see any great harm in moving forward, especially since it contains a number of necessary edits I sought. In particular, the item now makes clear that VoIP direct access to numbers is completely voluntary and is in no way mandatory. It also makes crystal clear that the scope of the item is limited to the telephone numbering system of today tied to the PSTN and does not extend to any new developments, such as IP-addresses, ENUM domain names, or any other unique identifiers.