

State of California

Public Utilities Commission

San Francisco

MEMORANDUM

Date : July 5, 2013

To : The Commission
(Meeting of July 11, 2013)

From : Helen M. Mickiewicz
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Subject: FCC's Request for Comments on Notice of Proposed Rulemaking, Order and Notice of Inquiry, re: VoIP Providers' Direct Access to Telephone Numbers¹

RECOMMENDATION: The CPUC should file comments in response to the *Notice of Proposed Rulemaking (NPRM)* and the companion *Notice of Inquiry (Notice)* released by the Federal Communications Commission (FCC) on April 18, 2013. In the *NPRM*, the FCC seeks comment on a host of issues pertaining to whether it should modify its rules regarding allocation of numbering resources so that Voice over Internet Protocol (VoIP) providers (and providers of IP-enabled services) may obtain telephone numbers directly from the North American Numbering Plan Administrator (NANPA) rather than obtaining those numbers through another service provider, as is done today.

BACKGROUND: Section 251(e) of the 1996 Federal Telecommunications Act gives the FCC "exclusive jurisdiction" over the North American Numbering Plan (NANP), but allows the FCC to delegate "to State commissions or other entities all or any portion of such jurisdiction". The Communications Act specifies that the administration in question is over "telecommunications numbering".² Accordingly, in 1996, commensurate with the beginning of local telephone competition, the FCC delegated to the states authority to "resolve matters concerning the implementation of area codes." Concurrently, the FCC authorized creation of an independent,

¹ *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; Petition of Vonage Holdings Corp. for Limited Waiver of Section 52.15 (g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources; Petition of TeleCommunication Systems, Inc. and HBF Group, Inc. for Waiver of Part 52 of the Commission's Rules; Released April 18, 2013.

² See 47 U.S.C. 251(e).

non-governmental entity to perform the function of administering the North American Numbering Plan (NANP), meaning that NANPA oversees the national numbering plan.³

During this same transition period, beginning in the mid-1990's, the onset of local telephone competition and the growing popularity of wireless service resulted in an explosive nationwide demand for telephone numbers. The demand was particularly acute in California, where, by 1999, the CPUC was about to open its 26th area code, in the face of a strong and negative public outcry. In response, the CPUC petitioned for and received from the FCC express delegated authority to implement number conservation measures. Subsequently, the FCC opened its Numbering Resource Optimization (NRO) rulemaking to establish national rules for the monitoring and allocation of numbers. In the FCC's March 2000 *NRO Order*, California was required to conform its number conservation rules to the FCC's rules.⁴ As a result of the combined CPUC rules and FCC rules, telephone numbers were allocated in a more rational manner, with carrier accountability for their inventories forming a key element of the new scheme. The CPUC did not open a new area code for a decade, and number demand moved to the back burner at both the state and federal levels.

In February of 2004, the FCC released a *NPRM* on IP-Enabled Services, in which the Commission sought comments on "whether any action relating to numbering resources is desirable to facilitate or at least not impede the growth of IP-enabled services, while at the same time continuing to maximize the use and life of numbering resources in the North American Numbering Plan."⁵ In the 2004 *NPRM*, the FCC noted that "packets routed across a global network with multiple access points defy jurisdictional boundaries" and sought comment on a network model of three layers: facility, protocol and application. The CPUC commented that "[t]he FCC should exercise its authority under Title II over voice-grade telephony service over IP, and should not forbear from enforcing the provisions of Title II, to ensure that the fundamental policy objectives of the Act are realized." The *IP-Enabled Services* docket remains open, but the FCC to date has not determined how IP-enabled services or VoIP services should be classified – whether as common carriers under Title II of the Communications Act, or as information service providers.

Also in 2004, SBC IP Communications, Inc. (SBC IP) petitioned the FCC for a limited waiver of the Commission's rules that require each applicant for NANP resources to submit evidence that it is authorized to provide service in the area for which the numbering resources are being requested.⁶ The FCC sought comment, and in Reply Comments in August of 2004, the CPUC opposed the request to "circumvent state numbering authority to which all other NXX code holders are subject." The CPUC strongly urged the Commission to deny SBC IP's Petition.

³ As part of the implementation of the Telecom Act of 1996, the FCC issued the *Second Report and Order on Local Competition (FCC 96-333)* adopted August 8, 1996.

⁴ It is worth noting that California's comments in the Numbering Resource Optimization Docket were very influential; the FCC adopted as national rules some of the rules the CPUC had implemented pursuant to its delegated authority.

⁵ Comment Sought On SBC IP Communications, Inc. Petition For Limited Waiver Of Section 52.12(g)(2)(i) Of The Commission's Rules Regarding Access To Numbering Resources, CC Docket No. 99-200, Public Notice, DA 04-2144 (rel. July 16, 2004).

⁶ 47 CFR 52.15 (g)(2)(i).

Granting the requested waiver before resolving the broader VoIP issues raised in the Commission's *IP-Enabled Services* proceeding is a dangerous step towards allowing VoIP provider to reap an important benefit of being a carrier – direct access to numbering resources – without bearing a carrier's responsibilities.⁷

In February of the following year, 2005, the FCC granted the waiver (*SBCIS Order*), but set forth rules for the carrier to follow.⁸ “Specifically, we require SBCIS to comply with the Commission's other numbering utilization and optimization requirements, numbering authority delegated to the states, and industry guidelines and practices, including filing the Numbering Resource Utilization and Forecast Report (NRUF).”⁹

Following the SBCIS Order, many VoIP providers similarly requested direct access to numbering resources and/or limited waivers from the FCC rules. On April 5, 2005, the CPUC submitted comments on a petition from Vonage:

In light of the Commission's decision to grant a limited waiver to one VoIP provider (subject to certain conditions), however, the CPUC does not oppose granting the same limited waiver to similar VoIP providers, under the same conditions. In addition, the CPUC urges the Commission to affirm that such VoIP providers (including SBC IS) are subject to state numbering requirements (established pursuant to authority delegated by the Commission) *to the same extent that other companies are subject to those requirements*. [Original emphasis.]¹⁰

The CPUC also urged the FCC to address the scope of delegated authority to the states, if any, over VoIP providers, and the broader question of direct access to numbering in the *IP Enabled*

⁷ 31 August 2004, CPUC Reply Comments to Comment Sought On SBC IP Communications, Inc. Petition For Limited Waiver Of Section 52.12(g)(2)(i) Of The Commission's Rules Regarding Access To Numbering Resources, CC Docket No. 99-200, Public Notice, DA 04-2144 (rel. July 16, 2004), at page 29.

⁸ In the months between the filing of the Petition and issuance of the *Order*, SBCIP was acquired by SBCIS.

⁹ Administration of the North American Numbering Plan, CC Docket 99-200, Order, FCC 05-20 (rel. February 1, 2005) (*SBCIS Order*). p 4.

¹⁰ 11 April 2005 Comment of CPUC on RNK, Inc. Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Numbering Resources, filed February 7, 2005 (RNK Petition); Nuvio Corporation Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Numbering Resources, filed February 15, 2005 (Nuvio Petition); UniPoint Enhanced Services d/b/a PointOne Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Numbering Resources, filed March 2, 2005 (PointOne Petition); Dialpad Communications, Inc. Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources, filed March 1, 2005 (Dialpad Petition); Vonage Holdings Corporation Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources, filed March 4, 2005 (Vonage Petition); VoEX, Inc. Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources, filed March 4, 2005 (VoEX Petition).

Services proceeding. In late 2011, the FCC sought to refresh the record for the “Me-Too” Petitions for Waiver that followed the 2005 SBC IS order. In January of 2012, the CPUC commented on Vonage’s petition for waiver, stating that we did not oppose the petition, but urged the FCC to update its rules to “benefit consumers and make more efficient use of numbers.” Noting that the FCC has yet to resolve the regulatory status of VoIP or IP-enabled service providers, the CPUC continued to advocate that VoIP providers gaining direct access to numbering resources should “be subject to the same rules and authority, including the authority granted to the states, as other providers.”¹¹

The April 2013 *NPRM* proposes to “promote innovation and efficiency by allowing interconnected Voice over Internet Protocol (VoIP) providers to obtain telephone numbers directly from the North American Numbering Plan Administrator (NANPA) and the Pooling Administrator (PA), subject to certain requirements,” and seeks comment on a “forward-looking approach to numbers for other types of providers and uses...”¹²

In addition, the FCC issued an Order directing “a limited technical trial of direct access to numbers” for 6 months for Vonage and other interconnected VoIP providers, who had originally petitioned for waiver in 2005. The FCC will provide waivers to “test whether giving interconnected VoIP providers direct access to numbers will raise issues relating to number exhaust, number porting, VoIP interconnection, or inter-carrier compensation, and if so, how those issues may be efficiently addressed.”¹³ The FCC also granted a waiver of section 52.15 (g)(2)(i) to allow TeleCommunications Systems, Inc. (TCS), a provider of Voice Positioning Center service, direct access to p-ANI¹⁴ codes for 9-1-1 and E9-1-1 service.¹⁵

In the *NOI*, the FCC seeks “comment on a range of issues regarding our long-term approach to numbering resources,”¹⁶ including the relationship between numbers and geography.

DISCUSSION AND RECOMMENDATIONS: Staff recommends the CPUC file comments on the following specific issues raised in the Public Notice.

¹¹ *Wireline Competition Bureau Seeks to Refresh Record on Petitions for Waiver of Commission’s Rules Regarding Access to Numbering Resources*, CC Docket No. 99-200, Public Notice, 26 FCC Rcd 17039 (2011); CPUC Comments 25 Jan 2012, p. 4.

¹² *Numbering NPRM*, ¶ 1.

¹³ *Ibid*, ¶ 2.

¹⁴ A p-ANI (“pseudo-Automatic Number Identification”) number is a telephone number used to support routing of wireless 9-1-1 calls. It may identify a wireless cell, cell sector or Public Safety Answering Point (PSAP) to which the call should be routed.

¹⁵ *Ibid*, ¶ 3.

¹⁶ *Ibid*, ¶ 4.

Legal Issues

Staff does not dispute the FCC’s exclusive authority over the North American Numbering Plan (NANP).¹⁷ The underlying question, however, is whether the FCC may lawfully allow entities that are not “telecommunications carriers” or provide “telecommunications service” to obtain numbers from the NANP. The FCC acknowledges in the *NPRM* that it “has not addressed the classification of interconnected VoIP services, and thus retail interconnected VoIP providers in many, but not all, instances take the position that they are not subject to regulation as telecommunications carriers, nor can they directly avail themselves of various rights under sections 251 and 251 of the [1996 Federal Telecommunications] Act.”¹⁸ Many VoIP providers either do not seek state certification, or state commissions (including California) are prohibited by state law from licensing VoIP providers. Accordingly, the FCC notes, interconnected VoIP providers cannot obtain numbers directly from the NANPA because they cannot provide the evidence of state certification required by FCC numbering rules.¹⁹ The FCC seeks comment on what documentation, if any, a VoIP provider should give the NANPA as “evidence of authority” to provide service and thus, to obtain numbers? This request poses a conundrum: how exactly would an entity not authorized by a state commission to provide service, and possibly having no authority from any other entity, including the FCC, show “evidence of authority to provide service”? Notwithstanding the apparent illogic of the FCC’s request, staff proposes to recommend that, in California, an interconnected VoIP provider could show evidence of compliance with P.U. Code § 285, which requires VoIP providers to collect and remit to the CPUC public purpose program surcharges. In addition, staff proposes that the CPUC recommend, in response to another FCC question, that states “lacking authority to provide certification for interconnected VoIP service,” including California, be given “a formal opportunity to object to the assignment of numbers to these providers,” as states do today with requests from telecommunications carriers.²⁰

Numbering Administration Requirements

- **Intermediate Numbers:** In its initial *Order* in the Numbering Resource Optimization Docket, issued in March 2000, the FCC established several categories of numbers, including categories for “assigned”, “aging”, “available”, “reserved”, “intermediate”, and “administrative” numbers. Staff proposes to comment on “imposing number utilization

¹⁷ See § 251(e) of the 1996 Telecommunications Act: “The Commission shall have exclusive jurisdiction over[the NANP].”

¹⁸ *Ibid*, ¶ 6. The CPUC notes, for example, that the FCC is proposing to allow VoIP providers and IP-enabled services providers who interconnect under § 251 of the Act to participate in the Commission’s envisioned intercarrier compensation scheme, without deeming those providers to be “telecommunications carriers”, or the service they provide to be “telecommunications service.” But here, the FCC is proposing a different solution.

¹⁹ *Ibid*, ¶ 7; see 47 C.F.R.52.15(g)(2)(i): “Applications for initial numbering resources shall include evidence that:

.... (i) The applicant is authorized to provide service in the area for which the numbering resources are being requested.”

²⁰ *Ibid*, ¶ 21.

and reporting requirements directly on VoIP providers”²¹ by discussing California’s experience with existing FCC rules pertaining to number utilization and reporting. In particular, staff proposes to comment on the use of intermediate numbers, which are numbers assigned to a facilities-based service provider which, in turn, allocates the same numbers to a non-facilities-based provider, such as a wireless or wireline reseller, or a VoIP provider. This category of number is extremely difficult to track, because it is in limbo between two service providers, with neither of the providers actually accountable for the number. Staff proposes that the CPUC recommend to the FCC that it eliminate the category of “intermediate” numbers altogether, and consider whether, in light of changes in technology, some other categories of numbers also should be eliminated.

- **State Role and Geographic Decoupling:** In comments filed in January 2012, the CPUC proposed that state commissions be allowed to determine the rate center from which numbers can be assigned to VoIP providers.²² The CPUC proposed this because VoIP providers, unlike traditional wireline providers, do not need to associate a number with a specific geographical location designated by a rate center. If adopted, the CPUC’s proposal would mean that a state could determine where VoIP providers would obtain numbers within an area code, thus affording the state the flexibility to allocate numbers more efficiently. In these comments, staff also proposes to support the CPUC’s previous recommendation that the FCC should direct VoIP providers to treat all terminating calls as “local” calls.²³
- **Number Utilization:**²⁴ In an earlier *Order*, the FCC established a utilization threshold that carriers must meet before they can obtain new blocks of numbers. The current threshold is 75%, which means that a carrier must show that it has used 75% of the numbers in its inventory before it can obtain new numbers. In its petition to the FCC for direct access to numbers, Vonage has offered “to maintain at least 65 percent number utilization across its telephone number inventory”²⁵ and in the *NPRM*, the FCC has proposed Commission oversight at 90-day reporting intervals. California has proposed a higher threshold, at least 75 percent, multiple times, beginning with our 1999 petition for numbering authority. Staff proposes to recommend that the FCC adopt a threshold of no less than 75%, and perhaps should consider phasing in, over time, a higher threshold, especially if the FCC adopts other measures that would ensure more accurate tracking of number use.
- **Effect on Competition:** The FCC seeks comment “on whether our proposal to allow direct access to numbers for interconnect VoIP providers might affect competition, and if

²¹ *Ibid*, ¶¶ 22-23.

²² ¶¶ 26, 27, 28, referring to the CPUC’s Comments in response to Wireline Competition Bureau Seeks to Refresh Record on Petitions for Waiver of Commission’s Rules Regarding Access to Numbering Resources, CC Docket No. 99-200, Public Notice, 26 FCC Rcd 17039 (2011).

²³ The net effect of this type of routing will be to eliminate the capability to charge for intra-LATA long distance. California proposed this in Jan 25, 2012, p. 10.

²⁴ The utilization rate determines when an entity is permitted to apply for more telephone numbers.

²⁵ *NPRM*, ¶ 32.

so how.”²⁶ Staff proposes that the CPUC comment that for competition to be enhanced, the FCC must adopt rules that do not favor one category of providers over another. But, the FCC at present does not seem to have sufficient information to determine what effect on competition would result from allowing VoIP provider direct access to number. Accordingly, staff proposed that the CPUC encourage the FCC, in the trials it plans to undertake, make an element of the trial evaluation what effect, if any, VoIP direct access to numbers have on the state of competition.

Enforcement of Compliance with Rules

- **Penalties and Enforcement:** In the *NPRM*, the FCC seeks comment on “ways to ensure that interconnected VoIP providers that obtain direct access to numbers are treated on par with similarly situated traditional common carriers with respect to our numbering rules.”²⁷ Consistent with our previous comments, California proposes to support, with some qualifications, the FCC’s plan to treat VoIP providers as “telecommunications carriers”, and VoIP service as “telecommunications service” for purposes of the FCC’s numbering rules.²⁸ The qualification is that it is completely unclear whether the FCC can pick and choose whether to treat VoIP providers as “telecommunications carriers” for some purposes and not for others. If the FCC does treat VoIP providers as telecommunications carriers, they would then have both the same benefits and obligations, pursuant to the FCC’s numbering rules, as other telecommunications carriers.²⁹

Additional Issues

- **LNP Obligations:**³⁰ The FCC seeks comment on the “proposal to modify our rules to include language that users of interconnected VoIP services should enjoy the benefits of local number portability without regard to whether the VoIP providers obtains numbers directly or through a carrier partner.”³¹ California proposes to support number portability across the board, i.e., all numbers assigned to two-way communication devices should be capable of being ported between service providers, regardless of technology or location. VoIP providers should not be constrained by geographic boundaries for porting purposes.

²⁶ *Ibid*, ¶ 35.

²⁷ *Ibid*, ¶ 36.

²⁸ See *NPRM*, Appendix A, proposed rules 52(A)(1)(i) and (j).

²⁹ CPUC Comments to *IP Enabled Services*, 28 May 2004: “The FCC should exercise its authority under Title II over voice-grade telephony service over IP, and should not forbear from enforcing the provisions of Title II, to ensure that the fundamental policy objectives of the Act are realized.” CPUC comments on Waiver of State Commission Rules for VoIP Providers: “The CPUC notes that the FCC has not yet resolved the regulatory status of VoIP or IP-enabled service providers.” January 2, 2012, p. 4.

³⁰ Porting refers to a customer’s ability to transfer existing service from one provider to another within the same geographic area, while keeping the same telephone number.

³¹ *NPRM*, ¶¶ 61, 64.

Direct Access to Numbers for Other Purposes

- **Access to p-ANI Codes for Public Safety Purposes:** The FCC seeks comment on whether entities working with VoIP providers to 9-1-1 access to customers, so-called “VoIP Positioning Centers” (VPC), should be given direct access to p-ANI codes. Staff proposes that the CPUC oppose giving VPCs direct access to p-ANI codes for two reasons. VPCs are not registered or certificated in California, and these numbers are used in unique ways. End-users cannot dial p-ANIs, and service providers reuse these numbers to identify locations. Therefore the existing arrangements for acquiring and reporting on their usage should remain in place.

Notice of Inquiry

In the FCC’s companion *Notice of Inquiry*, the FCC asks for initial comment on a host of issues regarding the on-going transition from traditional telephone service to wireless and IP-based services. Specifically, the FCC asks whether “telephone numbers should remain associated with particular geographies.”

- **Impact of Geographic Numbers:** Telephone numbers today, for the most part, are assigned on a geographic basis. That is, the numbers are assigned to specific “rate centers” in area codes, and each area code has geographic boundaries. The FCC seeks comments on “the practical and policy implications if we were to transition telephone numbers to non-geographic distribution?”³² Staff recommends that the CPUC support the consolidation of rate centers as a means to reduce demand for numbers, and to alleviate the problem of stranded numbers. In addition, staff proposes that the CPUC support consolidating Local Access and Transport Areas (LATAs), which are a holdover from the 1984 break-up of then-AT&T.³³ Rate center consolidation now seems to be a rational approach to the resurgence in number demand, and the increasing disassociation of telephone service from a geographic location.³⁴ Staff also proposes to include in the CPUC’s comments data on the use of numbers and on California’s experience with splitting areas codes and receiving public comment.
- **Unitary Dialing Plan³⁵ for End User Dialing:** At present, states have some flexibility to determine, within the confines of the 10-digit North American Dialing Pattern, how

³² *Ibid*, ¶¶ 120, 121, 122, 134, 124.

³³ California has 11 LATAs. Today, calls originating and terminating within the boundaries of a LATA are considered “local” or “toll.” Calls across LATA boundaries are “long distance.” With the advent of unlimited calling plans across the industry, the significance of LATA boundaries has all diminished, with commensurate impacts on call rating.

³⁴ In the early days of local competition, the CPUC had opposed rate center consolidation, noting the inconvenience and associated costs for consumers.

³⁵ A unitary dialing plan eliminates the inter-intra NPA relationship for end user dialing and requires all users to dial all 10-digits of a telephone number to reach all numbers, even to those numbers within the area code where the call originates. The FCC requires this type of dialing plan in areas where an area code overlay has been implemented so that competitors are not disadvantaged (FCC 96-333 at p. 287). Before a split or overlay, it is not usually implemented and users dial 7-digits locally. The authority for this decision is delegated to the states. (*Id*, p. 316)

many digits customers dial to reach other customers. For the most part, in California, dialing a local call requires dialing only seven digits, except where an overlay has been implemented. In the cases of overlay area codes, all customers must dial 1+10 digits.³⁶ In the *NPRM*, the FCC asks if it should consider “long-term changes to the basic telephone numbering system.”³⁷ Staff recommends that, if the FCC is contemplating adopting a national unitary dialing plan, California propose a phase-in period on a schedule that the CPUC would determine. Staff would note that California currently does not have a unitary dialing plan implemented within the state.

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³⁶ This rule is mandated both by the FCC and the CPUC.

³⁷ *NPRM*, ¶ 132.