

**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
	)	
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	)	

**REPLY COMMENTS OF XO COMMUNICATIONS, LLC**

XO Communications, LLC (“XO”) hereby submits these reply comments in response to comments filed on the Notice of Proposed Rulemaking and Notice of Inquiry released by the Commission in the above-captioned proceedings.<sup>1</sup>

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<sup>1</sup> *Numbering Policies for Modern Communications; etc.*, Notice of Proposed Rulemaking, Order and Notice of Inquiry, WC Docket Nos. 13-97, 04-36, 07-243, and 10-90; CC Docket Nos. 95-116, 01-92, and 99-200; FCC 13-51 (rel. April 18, 2013) (“*NPRM/NOI*”). All comments cited in these reply comments are to those filed in the above-referenced docket in response to the *NPRM/NOI*, unless otherwise noted.

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## **I. INTRODUCTION AND SUMMARY**

There is general consensus among commenters that consumer and industry benefits can be gained by allowing interconnected VoIP providers that are not carriers to have direct access to numbering resources, so long as those providers are subject to the same administration and use requirements as all others with direct access. Thus, while the Commission could consider minor modifications to its rules to accommodate circumstances of non-carrier VoIP providers, it should not overhaul the current numbering allocation system or create subsets of substantive rules applicable only to a portion of those with direct access to numbers.

XO agrees that permitting direct access to VoIP providers “is likely to facilitate a smoother and faster transition to an all-IP world for voice services”<sup>2</sup> and urges the Commission to assist in furthering this transition by confirming that sections 251 and 252 require ILECs to provide managed IP interconnection to requesting carriers. Furthermore, managed IP interconnection should not be limited by the technologies that are used to serve end users. As XO has advocated in repeatedly in various dockets, the IP transition would be accelerated if managed IP interconnection were provided for exchanging all voice traffic.

There is no need for the Commission to modify the current cost allocation methodology in connection with providing non-carrier VoIP providers with direct access to numbering resources. While XO agrees that VoIP providers should share in the current allocation of costs among the industry, the Commission should not modify the overall methodology as requested by the ILECs.

Finally, the Commission should consider options to remove the connection between geography and number assignment since The primary reasons for geographic numbering assignment – rating and routing – have been all but eliminated with the reform of

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<sup>2</sup> Comcast Comments at 2.

intercarrier compensation rates and technology transitions to IP. XO agrees that geographic limitations should be relaxed or ultimately eliminated; however, such modifications should apply to all providers, not just VoIP providers.

**II. ALL PARTIES WITH DIRECT ACCESS TO NUMBERING RESOURCES SHOULD BE SUBJECT TO THE SAME REGULATORY REQUIREMENTS**

XO does not oppose granting non-carrier VoIP providers with direct access to numbering resources as long as all providers that directly obtain numbering resources are subject to the same requirements with respect to the use and administration of numbers. Therefore, XO supports the Commission’s proposal to impose the same number utilization and optimization requirements and industry guidelines and practices that apply to carriers on non-carrier VoIP providers that obtain direct access to numbers. XO believes that disparate regulation between providers with direct access to numbers is unnecessary and agrees that “[t]he key criterion [any] proposed requirements should be judged by is whether they are competitively neutral.”<sup>3</sup> XO agrees that “it appears that allowing interconnected VoIP providers direct access to telephone numbers will necessitate only limited modifications to the FCC’s existing regulations and the industry’s standard practices.”<sup>4</sup>

**A. Authorization & Facility Readiness**

XO shares the Commission’s interest and industry concurrence in maintaining appropriate rules to “ensure continued network integrity, allow oversight and enforcement of [its] numbering regulations, and protect the public interest.”<sup>5</sup> Thus, XO agrees that the underlying tenets of section 52.15(g) should be maintained in order to ensure the security of numbering databases and effective and fair administration of numbering resources and

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<sup>3</sup> Level 3 Comments at 4.

<sup>4</sup> Comcast Comments at 2-3.

<sup>5</sup> *NPRM/NOI* ¶ 16.

processes.<sup>6</sup> XO agrees that “VoIP providers must provide data, contact information, utilization and other required reports to state entities that have been delegated authority to manage numbering resources.”<sup>7</sup> To accomplish this, the Commission could establish a certification process that would require VoIP providers to “register” their contact information with the relevant state commission prior to requesting numbering resources for that state.<sup>8</sup> To the extent that an interconnected VoIP provider is unable to obtain state certification, XO also agrees that provision of a copy of a recently-filed FCC Form 499-A could satisfy section 52.15(g)(2)(i) by “provid[ing] to those assigning telephone numbers the necessary information regarding the geographic areas that an applicant for numbers serves or plans to serve, much like the CPCN does on a state level.”<sup>9</sup>

Most importantly, XO agrees that gaining direct access to numbering resources should be “contingent upon providing a wholesale or retail commercial service with universal connectivity and that it has the IP equivalent of the facilities readiness requirement.”<sup>10</sup> XO also supports Vonage’s suggestion for “a flexible definition of facilities readiness that would allow 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.”<sup>11</sup> Non-carrier VoIP providers and their partner LECs could fulfill this requirement with a certification by the partner LEC that it has the right to route traffic

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<sup>6</sup> COMPTTEL Comments at 13-14.

<sup>7</sup> NJ Division of Rate Counsel Comments at ii.

<sup>8</sup> Joint Comments of the PSC of Wisconsin, *et al.* at 6; COMPTTEL Comments at 10.

<sup>9</sup> Vonage Comments at 13; Comcast Comments at 5.

<sup>10</sup> AT&T Comments at iii.

<sup>11</sup> Vonage Comments at 18-20.

over the local tandem, either through direct trunking or an interconnection agreement with the local tandem provider.”<sup>12</sup>

**B. Numbering Administration and Utilization**

As a carrier that utilizes direct numbering resources for its various wholesale and retail services, XO has a strong interest in ensuring that numbering resources are not prematurely exhausted. However, XO does not believe that providing direct access to non-carrier VoIP providers will necessarily impose additional burdens on numbering administration or exhaust. Furthermore, XO agrees that the “Commission can mitigate this concern by requiring VoIP providers that receive numbers to comply with the existing number utilization and optimization requirements and industry guidelines, which apply to telecommunications carriers today.”<sup>13</sup>

The Commission should ensure that state commissions have authority over non-carrier VoIP providers as they do over carriers with direct access to numbering resources. “Indeed, state commissions have been delegated this authority in the past and have played an important part in seeing that numbering resources are made available to the industry on an equitable basis and in preserving the NANP from premature exhaust.”<sup>14</sup> This role should not change with non-carrier VoIP providers gaining direct access to numbers.

However, XO agrees with commenters that oppose proposals that would permit state commissions to restrict rate centers in which non-carrier VoIP providers could obtain numbering resources.<sup>15</sup> The proponents of proposals to restrict access to pooling rate centers apparently assume that customers of VoIP providers do not care about having a telephone number from their home rate center simply because it is technologically possible for a VoIP provider to assign

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<sup>12</sup> Vonage Comments at 18-20.

<sup>13</sup> Comcast Comments at 6.

<sup>14</sup> AT&T Comments at 14.

<sup>15</sup> *Id.* at 7-8.

a number from another rate center.<sup>16</sup> This assumption is false. Just because it is possible for a VoIP service to be portable does not mean that a customer has no right or interest in obtaining a number in its home rate center. As Vonage notes,

VoIP subscribers are no different from subscribers to traditional wireline service—they care about their numbers and often want them to correspond to their physical location.... Allowing states to restrict VoIP providers from obtaining numbers in any rate center thus puts non-carrier VoIP providers at a competitive disadvantage by limiting them to obtaining numbers that might be considered undesirable by prospective VoIP subscribers.<sup>17</sup>

XO further urges the Commission not to restrict VoIP providers or any carrier that obtains direct access to numbering from also acquiring numbers through a numbering partner. While the Joint Comments of the PSC of Wisconsin, *et al.* argue that allowing providers to obtain numbers through a partner may reduce a state commission’s ability to monitor the provider’s utilization rates,<sup>18</sup> XO submits that permitting providers to continue to obtain numbering through partners will allow providers to efficiently manage their numbering inventory. For example, a carrier with direct access to numbers may obtain a small amount of numbers from a numbering partner in a rate center where it does not currently have an assigned block of numbers rather than request an entire block. If the Commission restricted providers from being able to obtain these individual numbers as necessary, it would lead to inefficient allocation and could actually contribute to number exhaust. Similarly, XO agrees that “[a]ll providers who meet the Commission’s standards for direct access to numbering resources should be entitled to make use of it,” for example where a provider might have a CPCN in one state but not in another state where it has a need for numbers.<sup>19</sup> In sum, the Commission should allow providers to make their own determination of the best means and location for obtaining numbers

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<sup>16</sup> Joint Comments of the PSC of Wisconsin, *et al.* at 7-8.

<sup>17</sup> Vonage Comments at 13.

<sup>18</sup> Joint Comments of the PSC of Wisconsin, *et al.* at 11.

<sup>19</sup> AT&T Comments at 5.

for their customers, as long as they otherwise meet the Commission’s utilization and optimization requirements.

XO strongly encourages the Commission to explore options for more efficient numbering administration. “For example, the concept of Individual Telephone Number Pooling, which would allow service providers the option of requesting numbers on an as needed basis, instead of in thousands-blocks, deserves examination.”<sup>20</sup> XO supports further consideration of AT&T’s proposal for administration of numbers using “just-in-time” principles, whereby “the NPAC database could be employed to allocate numbers on an individual telephone number or as-needed basis.”<sup>21</sup> XO agrees with Neustar that this “process would require national standards, which could be developed by the appropriate industry numbering committees with guidance from the FCC [and it] likely would extend the life of the NANP and provide maximum accommodation for growth in TN demand.”<sup>22</sup> Moreover, “[n]umber conservation achieved through rate center consolidation would allow for increased efficient use of scarce numbering resources permitting current area codes to have longer lives, thus preserving the NANP.”<sup>23</sup>

Although providers should be permitted flexibility in requesting numbering resources, non-carrier VoIP providers should be held to the same utilization standards as now apply to carriers with direct access to numbers.<sup>24</sup> XO believes the Commission should ensure that these providers adequately report on all numbering resources they have obtained, not just those obtained directly from the NANPA or PA. The Commission could do so by requiring a non-carrier VoIP provider to provide actual utilization data to its numbering partners where they continue to obtain indirect numbering resources. While VoIP providers may have contractual

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<sup>20</sup> Neustar Comments at ii-iii.

<sup>21</sup> AT&T Comments at v.

<sup>22</sup> Neustar Comments at 8-9.

<sup>23</sup> Pennsylvania PUC Comments at 14-15.

<sup>24</sup> Hypercube Comments at 7.

obligations to provide this data to their numbering partners, having a regulatory requirement to do so would likely improve the validity of that data, which would be ultimately reported on the numbering partner's NRUF report.

XO further supports the Commission revising the definitions of "intermediate numbers" and "assigned numbers" to ensure consistent reporting among providers. In particular, XO supports refining "intermediate numbers" as proposed by the NANC IMG to include numbers assigned by the national administrator (NANPA or PA) to a carrier that has in turn dedicated those for use by another entity responsible for the assignment of the numbers to end-user customers, so the numbers are not available to the carrier for assignment to its end-user customers.<sup>25</sup> Thus, "assigned numbers" would include only retail assignments to an end user.<sup>26</sup> "It is important to note, however, that with respect to certain services, a LEC numbers holder may not have visibility into the use its customer is making of an assigned telephone number."<sup>27</sup> Thus, while the Commission should urge providers to use due diligence in obtaining the best utilization information available, it cannot expect providers to have perfect information regarding number utilization by their downstream customers.

### **C. Databases, Call Routing and Termination**

As non-carrier VoIP providers have been providing services to customers using LRNs without call routing issues for years<sup>28</sup> and because providers have every incentive to ensure routing continues successfully, XO does not anticipate that general routing issues will arise simply because a VoIP provider has direct access to numbering resources. In any event, "[t]he ongoing numbering trials will supply additional clarity and comfort that no routing problems

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<sup>25</sup> AT&T Comments at 6.

<sup>26</sup> Pennsylvania PUC Comments at 17.

<sup>27</sup> Level 3 Comments at 5.

<sup>28</sup> Neustar Comments at 1.

exist and will reveal complications, if any, that arise with the use of marketplace routing and termination solutions or including VoIP providers in industry databases.”<sup>29</sup> XO agrees that non-carrier VoIP providers must agree to maintain necessary entries in relevant industry databases, such as the LERG and NPAC, as these databases will be critical to routing and rating calls, as well as intercarrier compensation,<sup>30</sup> until new standards are developed for the routing of IP-based voice traffic using databases with ENUM. XO strongly urges the Commission to encourage and support the development of the necessary new standards and procedures for IP-based call routing; however, XO agrees that “the industry should take the lead in establishing the relevant parameters that will work for all voice service providers in a broad range of potential routing scenarios.”<sup>31</sup>

XO agrees that with respect to ported numbers, VoIP providers should be treated like any other carrier in the NPAC.<sup>32</sup> Interconnected VoIP providers are already subject to porting requirements, including one-day porting where applicable. XO supports 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 VoIP provider obtains numbers directly or through a carrier partner.”<sup>33</sup> Furthermore, XO agrees 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.”<sup>34</sup>

#### ***D. Intercarrier Compensation***

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<sup>29</sup> Vonage Comments at 21.

<sup>30</sup> AT&T Comments at 4.

<sup>31</sup> Comcast Comments at 10-11.

<sup>32</sup> iconectiv Comments at 5.

<sup>33</sup> *NPRM/NOI* ¶ 61.

<sup>34</sup> Comcast Comments at 8.

There is no reason that granting non-carrier VoIP providers with direct access to numbering should modify existing intercarrier compensation rules.<sup>35</sup> However, XO agrees that “clarifying these issues will go a long way toward ensuring that the Commission does not open an opportunity for service providers to create new arbitrage opportunities.”<sup>36</sup> “Where VoIP providers rely on carrier partners—that is, where they do not have direct IP interconnection agreements—the Commission’s rules entitle those carrier partners to collect intercarrier compensation for functions they or Vonage perform.”<sup>37</sup>

XO concurs with commenters that oppose the California PUC proposal to deem all VoIP calls as local.<sup>38</sup> Contrary to industry standards, the California PUC argues “[g]iven the network architecture of VoIP providers, there is every reason to conclude that VoIP providers can ensure call routing so that all terminating calls would be local, thus making the acquisition of local numbers irrelevant.”<sup>39</sup> It is true that the nature of VoIP services is nomadic due to the portability of the services, however, as AT&T explains, it is not possible for a provider to route a call from, for example, one state to another or across local exchange boundaries as a “local” call.<sup>40</sup> Such a call would require transit by an interexchange carrier, in which case the call will be treated as an interexchange call for intercarrier compensation purposes. Second, if the scheme proposed by the California PUC was established only for over-the-top VoIP services (i.e., those typically provided by non-carrier VoIP providers), facilities-based VoIP providers and customers would be disadvantaged where their similar calls would still be treated as interexchange calls.

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<sup>35</sup> Vonage Comments at 23.

<sup>36</sup> CenturyLink Comments at 15

<sup>37</sup> Vonage Comments at 24.

<sup>38</sup> See AT&T Comments at 9.

<sup>39</sup> California PUC Comments at 13.

<sup>40</sup> AT&T Comments at 8-9.

**III. THE COMMISSION SHOULD CONFIRM OBLIGATIONS TO PROVIDE MANAGED IP INTERCONNECTION ALONG WITH GRANTING DIRECT ACCESS TO NUMBERING RESOURCES**

XO strongly agrees with COMPTTEL that the Commission should focus its limited resources on facilitating VoIP interconnection by confirming ILEC obligations under Section 251 to provide the managed IP interconnection for the exchange of managed VoIP traffic.<sup>41</sup> XO has recently filed comments in response to various requests for comment and urges the Commission to act in those proceedings.<sup>42</sup> XO agrees that managed IP interconnection should not be limited by the technologies that are used to serve end users.<sup>43</sup> As XO has advocated in repeatedly in various dockets, the IP transition would be accelerated if managed IP interconnection were provided for exchanging all voice traffic. Moreover, XO agrees that

IP 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. More generally, IP interconnection promises benefits for both consumers and the industry as a whole.... Further, as technology continues to develop, VoIP providers and others will be able to implement new features and other improvements that require end-to-end IP transport.<sup>44</sup>

XO disagrees with CenturyLink's contention that "[i]f the called party is still served on a TDM network, there is no inherent efficiency in requiring a terminating carrier to accept a call in IP and convert it to TDM, rather than just accepting the call in TDM as it does today."<sup>45</sup>

CenturyLink continues to argue that it should not be required to provide managed IP interconnection until it deploys IP-based services to its customers; however, XO submits that confirming the ILEC's obligation to provide managed IP interconnection would provide just the

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<sup>41</sup> COMPTTEL Comments at 2.

<sup>42</sup> See Comments and Reply Comments of XO Communications, GN Docket No. 13-5, 12-353, RM-11358 (filed July 8, 2013 and August 7, 2013).

<sup>43</sup> COMPTTEL Comments at 13; Level 3 Comments at 6-7.

<sup>44</sup> Vonage Comments at 4.

<sup>45</sup> CenturyLink Comments at 18.

right incentive for CenturyLink and other ILECs that have delayed deploying IP technology into their networks to do so. XO has repeatedly argued that there need be no connection between the technology used to serve any particular end users and the interconnection arrangement used to exchange traffic between carriers. In other words, despite CenturyLink's reluctance and delay in deploying IP services to its end users, the ILEC should be obligated under section 251 to provide IP interconnection to requesting carriers.

XO agrees with AT&T's call to promote managed IP interconnection, facilitate adaptation or development of industry databases to ensure efficient routing of VoIP services, and to establish a date by which carriers will no longer have to provide TDM-based interconnection.<sup>46</sup> However, XO strongly disagrees with AT&T's contention that it has no obligation to provide managed IP interconnection and therefore apparently would be relinquished from all of its interconnection obligations at such time. Thus, while XO supports establishment of a date by which carriers no longer must provide TDM-based interconnection, it is critical that the Commission ensure that ILECs accept their obligation to provide managed IP interconnection before any such date is set. Without implementation of ubiquitous IP interconnection within the industry, including the ILECs, the interconnectivity of the public communications network will disintegrate.

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<sup>46</sup> AT&T Comments at vi.

**IV. THE COMMISSION SHOULD NOT MODIFY THE EXISTING COST ALLOCATION METHODOLOGY BUT SHOULD INCLUDE NON-CARRIER VOIP PROVIDERS IN THE EXISTING ALLOCATION PROCESS**

The Commission seeks comment on whether it should amend its numbering cost allocation rules to include contributions by non-carriers with direct access to numbering resources and whether it should initiate a rulemaking to examine its overall cost allocation methodology. XO agrees that non-carrier VoIP providers receiving direct access to numbers must share in the costs of database management;<sup>47</sup> therefore, the Commission should modify whatever rules necessary to ensure those providers participate in the existing cost allocation process, as XO understands they are already doing under the ongoing trials. However, there is no need for the Commission to modify the existing cost allocation methodology to accommodate direct access by the non-carrier VoIP providers.

Specifically, the Commission should not grant the action requested by Verizon and other ILECs to declare certain NPAC transactions by competitive providers as “discretionary, elective, or unnecessary” and excluded from shared NPAC database costs.<sup>48</sup> XO opposed Verizon’s Petition initially requesting such action and incorporates its reply comments filed in that proceeding herein.<sup>49</sup> As XO stated, the record in that proceeding clearly demonstrates that the so called “elective” database transactions Verizon seeks to separate are in fact necessary to ensure

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<sup>47</sup> Hypercube Comments at 6; CenturyLink Comments at 21.

<sup>48</sup> Verizon Comments at 5; CenturyLink Comments at 21. See Petition of Verizon and Verizon Wireless for Declaratory Ruling to Assess NPAC Database Intra-Provider Transaction Costs on the Requesting Provider, WC 11-95 (filed May 20, 2011) (“Verizon Petition”).

<sup>49</sup> Reply Comments of XO Communications, WC 11-95 (filed August 15, 2011) (“XO Opposition to Verizon Petition”).

proper routing of calls and to minimize service disruptions to customers.<sup>50</sup> While the requesting carrier and its customer do benefit from transactions that maintain accurate routing information, other providers also significantly benefit since updated accurate data ensures that calls originating from their own customers can terminate to the called number.<sup>51</sup> Whether the impetus for the database request may be wholly under the control of the requesting carrier does not change the fact that maintenance of accurate information is critically beneficial to customers and other providers.<sup>52</sup>

The ILECs support for usage-based fees does not reflect a change in the industry since the Commission first adopted the current methodology, but is merely a thinly-veiled means of shifting the burden of shared costs to competitors who have no choice but to use the NPAC databases, by virtue of the fact that a large percentage of their number resources are pooled or ported numbers.<sup>53</sup> ILECs have a significant advantage in using the LERG since the majority of their numbers are not in the NPAC databases; however, there is no alternative for competitive carriers other than to directly update NPAC routing information for ported and pooled numbering resources.<sup>54</sup> Thus, the Commission should not consider a usage-based methodology that would result in a disproportionate share of the costs falling on competitive carriers through no fault of their own and with no recourse.

**V. THE COMMISSION SHOULD EXPLORE OPTIONS TO DISASSOCIATE GEOGRAPHY AND TELEPHONE NUMBER ASSIGNMENT**

The Commission seeks comment on whether the association between geography and numbers should continue as the industry transitions from TDM to IP technologies and the

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<sup>50</sup> XO Opposition to Verizon Petition at 2.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 3.

<sup>53</sup> *Id.* at 5

<sup>54</sup> *Id.* at 5-6.

intercarrier compensation regime transitions to bill and keep.<sup>55</sup> XO agrees that the “[d]ecreasing need to associate numbers with geography could allow more efficient allocation of limited numbering resources and expansion of the consumer benefits associated with the ability to port wireline numbers”<sup>56</sup> and supports consideration of options for removing geographic limitations on number allocations and assignments.<sup>57</sup>

Specifically, XO agrees that geographic limitations should be relaxed or ultimately eliminated. However, such modifications should apply to all providers, not just VoIP providers.<sup>58</sup> The primary reasons for geographic numbering assignment – rating and routing – have been all but eliminated with the reform of intercarrier compensation rates and technology transitions to IP. As the intercarrier compensation rates continue to move toward bill and keep, distinctions between call jurisdictions will be unnecessary. Moreover, wireless and VoIP providers are already offering customers opportunities to utilize numbers away from their home rate center. Thus, XO agrees that “because the implementation of a numbering system that does not tie an NPA/NXX code to a particular geographic area should permit wireline users to take their numbers with them when they move, regardless of the distance from their current location, the overall demand for new numbers should be reduced.”<sup>59</sup> Furthermore, to the extent that any state prohibits carriers from, or otherwise restricts carriers in, assigning so-called VNXX numbers (*i.e.*, telephone numbers assigned to customers who are not physically located in the geographic areas associated with the assigned numbers), such limitations, as a practical matter, cannot coexist with a non-geographic numbering regime.”<sup>60</sup>

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<sup>55</sup> *NPRM/NOI* ¶ 119.

<sup>56</sup> *Id.*

<sup>57</sup> AT&T Comments at vii; Neustar Comments at 7.

<sup>58</sup> COMPTTEL Comments at 15.

<sup>59</sup> Comcast Comments at 13.

<sup>60</sup> *Id.* at 14.

XO does caution, along with other commenters, that effective routing of 911 calls must be assured before a transition to non-geographic number assignment can be implemented.<sup>61</sup> When NG911 is fully deployed and emergency call routing is based on X and Y coordinates, “NPA/NXX and rate center boundaries will no longer be needed to route 911 calls to the appropriate PSAPs and telephone numbers could be freed from geographic limitations without impacting the efficient and reliable provision of access to emergency services.”<sup>62</sup> Hypercube suggests that “requiring use of the Jurisdiction Information Parameter [JIP] in call signaling information will provide additional jurisdictional information that will improve identification of the originating location of a call for public safety purposes.”<sup>63</sup> While XO agrees the JIP could be used for this purpose, necessary network modifications would have to be standardized across the industry so the Commission would need to consider the time needed for standards development and network implementation.

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<sup>61</sup> *Id.* at 3.

<sup>62</sup> *Id.* at 14.

<sup>63</sup> Hypercube Comments at i.

## CONCLUSION

For the forgoing reasons, the Commission should consider modifications to its numbering rules to allow direct access to resources for non-carrier VoIP providers consistent with these reply comments.

Sincerely,

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