

OCT 29 1997

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Request for Comment on North	)	DA 97-2234
American Numbering Council Letter	)	CC 92-237 DOCKET FILE COPY ORIGINAL
Seeking Clarification of the Term	)	
"Technology Neutral"	)	

COMMENTS OF MCI TELECOMMUNICATIONS CORPORATION

MCI Telecommunications Corporation ("MCI"), by its attorneys, respectfully submits these comments on the Public Notice released by the Common Carrier Bureau (the "Bureau") of the Federal Communications Commission ("Commission") seeking public comment on the request by the North American Numbering Council ("NANC") for clarification of the Commission's "technological neutrality" principle in numbering administration.<sup>1</sup>

INTRODUCTION AND SUMMARY

The Commission's requirement that telephone numbering administration, including state public utility commission ("PUC") decisions on area code exhaust, conform to principles of "technological neutrality" means that *numbering decisions cannot unduly disadvantage or benefit any carrier or class of carriers, or deny access to numbering resources based on the technology a carrier or class of carrier uses in its networks.* Technical neutrality does not, however, require that area code relief measures can only be implemented once every industry

<sup>1</sup> *Common Carrier Bureau Seeks Comment on North American Numbering Council Letter Seeking Clarification of the Term "Technology Neutral,"* Public Notice, DA 97-2234 (Comm. Carr. Bur. released May 19, 1997)("Public Notice").

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segment, both wireline and wireless, has fully deployed switching systems that support all numbering functionalities. Such an approach would hold area code relief planning hostage to carriers that utilize outdated switching technologies and prevent state PUCs from fashioning new and innovative ways to delay area code exhaust in an era of explosive growth in consumption of telephone numbering resources. Consequently, because *NXX-X Location Routing Number ("LRN") number pooling does not disfavor or discriminate against wireless carriers in any way, and does not deny wireless carriers or any other industry segment access to telephone numbers,* it may be implemented by state PUCs without violating the Commission's requirement of technological neutrality in numbering administration.

### BACKGROUND

Methods to conserve telephone number resources are urgently needed. The repeated and continual exhaust of telephone number area codes impedes the growth of telecommunications competition and results in great expense and inconvenience to the American consumer. Seeking to reduce the rate of area code exhaust, the Carrier Liaison Committee ("CLC"), an industry forum sponsored by the Alliance for Telecommunications Industry Solutions, has identified several methods on how to expeditiously improve the efficiency of assigning telephone numbers.

One promising method that the CLC has identified is using NXX-X LRN number pooling to more efficiently assign telephone numbers and reduce the rate of area code exhaust.<sup>2</sup>

Similarly, the Pennsylvania Public Utility Commission ("PaPUC") has ordered capable carriers

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<sup>2</sup> Draft CLC Report to the NANC, July 22, 1997 ("Draft CLC Report").

within Pennsylvania to implement this method to avoid area code exhaust in two area codes.<sup>3</sup>

Because the NXX-X method requires that carriers have local number portability (“LNP”) capabilities, the CLC report initially asserted that the method was not “technology neutral,” in that not all wireline and wireless carriers have implemented LNP.

As a result of flourishing consumer demand for telecommunications services, increasing competition and inefficient methods of assigning telephone numbers, the rate of area code exhaust has reached unacceptable levels. Telephone numbers have always been assigned in an inefficient manner, but because there were only a few carriers providing service within a given area code and consumer demand for new telephone numbers was minimal, area code exhausts occurred relatively infrequently. In the last several years, however, the tremendous growth of wireless, Internet and fax services, accompanied by the introduction of local competition in which many more carriers serve a single area code, has stressed the North American Numbering Plan (“NANP”) to the verge of collapse.

The Federal Communications Commission (“Commission”) must “encourage the provision of new technologies and services to the public”<sup>4</sup> and promote local telephone competition.<sup>5</sup> Thus, increased telephone number demand from the advent of new services and competition is entirely consistent with and, in fact a result of, the Commission fulfilling its statutory obligations. Inefficient number assignment, however, is not consistent with the FCC statutory obligations. The Commission has repeatedly indicated that it seeks to ensure that

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<sup>3</sup> Petition of NPA Relief Coordinator Re: 412 Area Code Relief Plan, Petition of NPA Relief Coordinator Re: 215/610 Area Code Relief Plan, Petition of NPA Relief Coordinator Re: 717 Area Code Relief Plan Docket Nos. P-00961027, P-00961061, P-00961071, Pennsylvania Public Utility Commission, Order, July 15, 1997 (“PaPUC Order”).

numbering resources are assigned in a timely and efficient manner. Furthermore, the Commission's overriding statutory obligation is to ensure that communication services are widely and readily available to all American citizens.<sup>6</sup> This obligation is jeopardized, and the introduction of new services and the growth of local competition threatened, when telephone numbers are not available because of continual exhausts and drastic number rationing associated with jeopardy relief situations. Thus, the only way for the Commission to continue to meet its statutory obligations of promoting new services, technologies and local competition is to improve the efficiency of telephone number assignments.

Recognizing these realities, the CLC identified several potential methods to improve the efficiency of assigning telephone numbers and reduce the rate of NXX exhaust. One promising alternative put forth in the draft CLC Report for more efficiently assigning numbering resources is NXX-X LRN number pooling. Under this approach, NXXs within a given NPA would be shared among service providers. Specifically, following the initial assignment of an NXX within a rate center, NXX-X LRN number pooling allows the assignment of numbers to service providers in blocks of 1,000 telephone numbers, instead of blocks of 10,000 telephone numbers as is currently done. NXX-X LRN number pooling requires that switches be equipped with LNP to have numbers assigned in 1,000s blocks, otherwise carriers will still receive full 10,000 number NXXs.

The CLC Draft Report to the NANC initially stated that because this solution requires LNP, it is not "technology neutral." While the solution may not be technologically indifferent, in

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<sup>4</sup> 47 U.S.C. § 157.

<sup>5</sup> See Telecommunications Act of 1996, 47 U.S.C. §§ 251-52..

the sense that only certain switches (those already having LNP capabilities) can be assigned numbers in 1,000 blocks, it is technology neutral in that it does not “unduly disadvantage” any class of telecommunications carrier. Furthermore, no carrier is technologically barred from investing in LNP functionality—the absence of LNP capabilities is a business choice. Finally, if some carriers do not participate in NXX-X LRN number pooling, they would in fact be able to continue to receive numbering resources in blocks of 10,000 numbers.

After considerable discussion within the NANC on this issue, the NANC decided that (a) it would ask the CLC to revise the “technologically neutral” language in the draft report to make a more factual statement to the effect that it is not technically feasible for carriers without LNP capabilities to implement NXX-X LRN, and (b) it would request guidance from the FCC on the source and meaning of the technology neutral requirement for numbering administration. This public comment proceeding, arising from the August 22, 1997 letter from the NANC Chair to the Commission, is designed to provide the Commission with a record on which to base its response to the NANC request.

## **DISCUSSION**

### **I. THE COMMISSION’S DECISIONS ESTABLISH THAT NUMBERING POLICIES MAY NOT “UNDULY DISADVANTAGE” ANY INDUSTRY SEGMENT OR TELECOMMUNICATIONS TECHNOLOGY**

The Commission has several policy objectives and rules that it uses to determine whether a number administration method is acceptable. Section 251(e) of the Telecommunications Act of 1996, 47 U.S.C. § 251(e)(6), requires that the Commission make telephone numbers available on

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<sup>6</sup> 47 U.S.C. § 151.

an equitable basis. Following congressional passage of the Act, the Commission promulgated rules implementing Section 251(e) that formalized existing Commission number administration policy objectives. The Commission's principles for number administration are set forth in Section 52.9 of its Rules. The Commission seeks "[t]o ensure that telecommunications numbers are made available on an equitable basis."<sup>7</sup> As such, the administration of telecommunications numbers shall:<sup>8</sup>

- (a) facilitate entry into the telecommunications marketplace by making telecommunications numbering resources available on an efficient, timely basis to telecommunications carriers;
- (b) not unduly favor or disfavor any particular telecommunications industry segment or group of telecommunications carriers; and
- (c) not unduly favor one telecommunications technology over another.

These numbering principles have been in place for several years. The Commission first applied them in 1995 when addressing a proposed service-specific area code relief plan by Ameritech.<sup>9</sup> The principles were confirmed without further explanation in the Commission's *NANP Order*, which set forth the foundation for future numbering administration and created the NANC.<sup>10</sup> Following enactment of the 1996 Act, the Commission confirmed the principles and promulgated its formal Section 52.9 numbering administration rules in the *Local Competition Second Report and Order*.<sup>11</sup>

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<sup>7</sup> 47 C.F.R. § 52.9(a)(1).

<sup>8</sup> *Id.*

<sup>9</sup> *Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, Declaratory Ruling and Order, IAD File No. 94-102, FCC 95-19, Jan. 23, 1995 ("Ameritech Order").

<sup>10</sup> *Administration of the North American Numbering Plan*, Report and Order, CC Docket No. 92-237, FCC 95-283, July 13, 1995 ("NANP Order").

<sup>11</sup> *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Second Report and Order, CC Docket No. 96-98, Aug. 8, 1996 ("Local Competition Second Report and Order").

The Commission has analyzed two proposed area code relief plans against these principles and rules. These decisions illustrate application of the principles in determining whether a particular number administration proposal is consistent with or violates the Commission's number administration requirement for so-called "technological neutrality."

The first application of the Commission's numbering policies occurred in 1995, when Ameritech announced that the supply of NXXs would exhaust within the 708 area code (or Number Planning Area ("NPA")) and proposed a *service-specific* overlay relief plan consisting of an "exclusion proposal," a "take-back proposal" and a "segregation proposal."<sup>12</sup> The Commission determined that this plan violated its numbering policies and ordered Ameritech not to implement the plan. Ameritech's proposal contained three basic components: (1) telephone numbers in the existing NPA (708) would continue to be assigned to wireline carriers, while excluding paging and cellular carriers from such assignment ("exclusion proposal"); (2) paging and cellular carriers would be required to take back from their subscribers and return to Ameritech all 708 telephone numbers previously assigned, while wireline carriers would not be required to do so ("take-back proposal"); and (3) assigning all numbers to paging and cellular carriers exclusively from a different existing NPA (312) and a new NPA (630) while wireline carriers would continue to receive number assignments from NPA 708 ("segregation proposal").<sup>13</sup>

The Ameritech proceeding afforded the Commission the opportunity to announce its number administration policy policies. The Commission examined Ameritech's proposal under

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<sup>12</sup> *Ameritech Order* at ¶ 21.

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

its numbering policies and Sections 201(b) and 202(a) of the Communications Act of 1934. The Commission's primary analysis was under Section 201(b) and 202(a), as these gave the Commission the statutory authority to order Ameritech to not implement its plan. The Commission found that Ameritech's plan would be unreasonably discriminatory under Section 202(a) because it would discriminate between classes of carriers and confer significant competitive advantages on the wireline companies in competition with paging and cellular companies.<sup>14</sup> The Commission found that wireline carriers would enjoy a competitive advantage because only wireless customers would suffer the cost and inconvenience of having to surrender existing numbers.<sup>15</sup> Furthermore, the Commission held that Ameritech's plan was unjust and unreasonable under Section 202(b) in that it would place a disproportionate burden upon wireless carriers,<sup>16</sup> while providing advantages to wireline carriers.<sup>17</sup> The Commission therefore held that the assignment of numbers based on whether a carrier provides wireless service is not consistent with appropriate telephone numbering principles.<sup>18</sup>

The second application of the Commission's number administration principles occurred in 1996, following a Texas Public Utility Commission ("Texas PUC") order setting out an immediate wireline geographic area code split with prospective "wireless-only" overlays in the Dallas and Houston metropolitan areas.<sup>19</sup> The Commission concluded that the Texas wireless-only NPA overlay violated its number principles.<sup>20</sup> It noted that service-specific and technology-

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<sup>14</sup> *Id.* at 26-27.

<sup>15</sup> *Id.* at 27.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 35.

<sup>18</sup> *Id.* at 29.

<sup>19</sup> *Local Competition Second Report and Order* at 294-25.

<sup>20</sup> *Id.* at 304.

specific overlays do not further the federal policy objectives of the NANP because they “hinder entry into the telecommunications marketplace by failing to make numbering resources available on an efficient, timely basis to telecommunications services providers.”<sup>21</sup> The Commission commented that service-specific overlays that *deny particular carriers access to numbering resources because of the technology they use to provide their services* are not “technology neutral.”<sup>22</sup>

## **II. NXX-X LRN NUMBER POOLING ADVANCES THE COMMISSION’S NUMBERING POLICIES AND DOES NOT “UNDULY DISFAVOR” ANY INDUSTRY SEGMENT, INCLUDING WIRELESS CARRIERS**

The NXX-X LRN number pooling method promotes the Commission’s numbering policy objectives and is fully consistent with the principle of technical neutrality codified in Section 52.9 of the Commission’s Rules. NXX-X LRN number pooling provides a short-term method for assigning telephone numbers more efficiently, thereby providing benefits to all types of carriers and their customers. Implementation of this new approach will promote the Commission’s statutory responsibilities of promoting new services, technologies and local competition by making numbering resources more readily available. It is a new method of avoiding or forestalling NPA exhaust by eliminating underutilization of telephone numbers stemming from the traditional practice of assigning each local carrier a complete NXX (10,000 numbers) at one time.

The burdens and benefits associated with implementing number pooling are shared in an evenhanded manner among all telecommunications industry segments. *NXX-X LRN number*

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<sup>21</sup> *Id.* at 305.

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

*polling does not disadvantage any carrier or class of carriers, including CMRS and other wireless carriers.* Unlike service-specific overlays, which were based on the type of service a carrier provides, NXX-X LRN number pooling is technology neutral in that numbers are not assigned based on the service provided by a carrier. Instead, all carriers will be eligible to receive number assignments. The only difference in number assignment under NXX-X LRN number pooling is that some carriers will be able to receive number assignments only in smaller 1,000 blocks while others—those for whom LNP is technically infeasible—will continue to receive numbers in full-NXX 10,000 blocks. Consequently, even for carriers who cannot today participate in NXX-X LRN pooling because their networks lack the underlying LNP capabilities, there is no harm or disadvantage whatsoever stemming from this approach.

*A. NXX-X LRN Number Pooling Makes Numbering Resources Available on an Efficient, Timely Basis to All Telecommunications Carriers*

The NXX-X LRN method will make numbering resources available on a more efficient, timely basis to telecommunications carriers. 47 C.F.R. § 52.9(1)(a). Currently, telephone numbers are assigned in blocks of 10,000, even though in most instances a carrier needs only a fraction of those numbers. This leads to a tremendous waste of numbering resources. For example, even if a carrier has only 10 customers, 10,000 numbers become unavailable in a particular area, while 9,990 numbers sit unused. *See PaPUC Order* at 8. Under NXX-X LRN number pooling, for carriers capable of implementing the method, this inefficiency would be greatly reduced. Furthermore, because the rate of NXX exhaust will reduce the probability of NPA “jeopardy” situations arising where number resources are rationed, this method will also enhance the probability that number resources are readily available.

B. *NXX-X LRN Number Pooling Will Not Unduly Favor or Disfavor any Particular Telecommunications Industry Segment or Group of Telecommunications Carriers*

The NXX-X LRN method does not unduly favor or disfavor any particular telecommunications industry segment or group of telecommunications carriers. 47 C.F.R. § 52.9(1)(b). This method imposes burdens throughout the telecommunications industry in an evenhanded way, regardless of whether a carrier is a wireline or wireless service provider. For example, both wireless and wireline carriers that possess the LNP capability will have numbers assigned to them in blocks of 1,000 numbers. In fact, carriers not equipped with LNP capabilities may receive administrative *advantages* by the fact that they may still obtain numbers in larger 10,000 number blocks, thereby minimizing their internal administrative costs of number assignment.

Some wireless carriers have suggested that because they do not plan to deploy LNP technology until well after major wireline carriers do, the NXX-X LRN method is not technology neutral and disadvantages wireless carriers. This suggestion is flawed for at least three reasons. *First*, there is nothing inherent in the provision of wireless service that prevents CMRS, PCS and other wireless service providers from using the NXX-X LRN method. No technical limitation precludes wireless carriers from advancing their installation of LNP capabilities into their switching systems or upgrading to switches that support LNP. *Second*, many wireline switches (those of smaller carriers and those serving rural areas) will also not have LNP capabilities when the Commission schedule first requires LNP capabilities to be deployed. Thus, there will be both wireline and wireless carriers that, because they lack the underlying LNP capability, will be unable to participate in NXX-X LRN number pooling..

*Third*, unlike wireless-only NPA overlays, which would reserve existing NPA resources only for some carriers, NXX-X LRN number pooling is an approach that will be supported by wireless switching technologies in the near future. This is not a case of developing number administration policies that exclude certain industry segments, but rather of implementing new number conservation measures that wireless carriers are already preparing to support in their network switches.

Consequently, even without regard to inaccurate claims that number pooling is not “technology neutral,” LNP and number pooling in reality pose no threat to carriers not currently equipped with LNP capabilities, wireless or wireline, but rather enable all carriers to benefit by making numbering resources more readily available.

C. *NXX-X LRN Number Pooling Will Not Unduly Favor Any One Telecommunications Technology Over Another*

NXX-X LRN number pooling does not unduly favor one telecommunications technology over another. 47 C.F.R. § 52.9(1)(c). As with its other objectives, the Commission developed this principle of numbering administration in the context of service-specific overlays that assigned numbering resources solely on the basis of whether the service provider was a wireline or wireless service provider. The Commission determined that such an approach unreasonably discriminated against a particular industry segment based solely on the type of technology used to provide the service.

Under NXX-X LRN number pooling, the assignment of numbering resources, either in 1,000 or 10,000 number blocks, is based not on whether a service is wireline or wireless, but on whether a particular service provider *has chosen* to implement LNP, a technology mandated by

the Commission for both wireline and wireless carriers. Regardless of the fact that wireless carriers have a longer schedule, under Commission decisions, to implement LNP, the availability of NXX-X LRN number pooling for other types of carriers gives such carriers no advantage whatsoever, either for number assignments or in the overall telecommunications marketplace. Unlike the Texas PUC wireless-only overlay proposal, for instance, NXX-X LRN number pooling does not deny particular carriers access to numbering resources because of the technology they use to provide their services.<sup>23</sup>

It is impossible to divorce numbering administration completely from the impact of the network technologies used by different industry segments. For instance, wireline carriers use different rating and billing systems than wireless carriers, requiring them to employ “rate centers,” which increase their needs for numbering resources compared to wireless carriers. In NPA “jeopardy” situations, which are common today and under which NXX assignments are rationed, wireless carriers enjoy significant advantages with regard to number access because their network technologies support service-area wide (not rate center limited) usage of NXXs. From this perspective, NXX-X number pooling simply evens out some of the inherent advantages enjoyed by wireless carriers in terms of real-world access to numbering resources.

Taken to a logical extreme, the technological neutrality principle would therefore dictate that wireless carriers should be required to employ rate centers, or that rate centers should be abolished for all carriers, in order to ensure absolute number access parity in the event of NPA jeopardy and NXX rationing. But whether or not wire center restrictions and NXX rationing

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<sup>23</sup> *Local Competition Second Report and Order* at 294-25.

actually violate technological neutrality, this illustrative case demonstrates that an overbroad or ambiguous application of the technological neutrality policy could lead to potentially substantial changes in settled numbering practices. The Commission has clearly held that technological neutrality in numbering means that no industry segment may be unduly disadvantaged or denied numbering resources solely as a result of the underlying technologies carriers use to provide telecommunications services. Because NXX-X LRN number pooling is not specific to any network technology and does not disadvantage or deny any carrier or industry segment access to numbering resources, it fully meets this “technology neutral” requirement. The Commission should be extremely cautious about applying technological neutrality in an open-ended manner not linked to concrete competitive disadvantages or denial of telephone numbers.

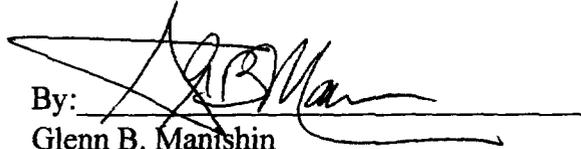
### CONCLUSION

The Commission’s requirement that telephone numbering administration, including state PUC decisions on area code exhaust, conform to principles of “technological neutrality” means that numbering decisions cannot unreasonably disfavor or benefit any carrier or class of carriers, or deny access to numbering resources based on the technology a carrier or class of carrier uses in its networks. NXX-X LRN number pooling does not in any way discriminate against or disadvantage carriers (whether wireless or wireline) who lack the underlying LNP capabilities, but rather limits the volume of telephone numbers assigned only for carriers participating in number pooling. Consequently, the NXX-X LRN method for number pooling—which represents a new and innovative way of avoiding premature area code exhaust and forestalling the need for disruptive, repetitive NPA splits—is fully consistent with the Commission’s number

administrations principles and should be carefully considered by state PUCs examining area code relief alternatives.

Respectfully submitted,

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Dated: October 29, 1997

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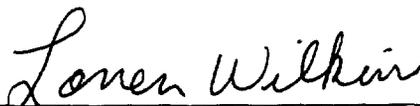
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