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February 12, 2001

VIA ELECTRONIC COMMENT FILING SYSTEM

Ms. Magalie Roman Salas  
Office of the Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Room TW-A 325  
Washington, DC 20554

Re: Numbering Resource Optimization,  
CC Docket No. 99-200

Dear Ms. Salas:

Pursuant to the December 29, 2000 Second Report and Order and Further Notice of Proposed Rulemaking in the above-referenced proceeding, enclosed please find the Comments of the Ad Hoc Telecommunications Users Committee ("Ad Hoc"). Ad Hoc's Comments are being transmitted to the Federal Communications Commission via the Federal Communications Commission's Electronic Comment Filing System ("ECFS").

If you have any questions or concerns, please do not hesitate to contact me at (202) 857-2550.

Respectfully submitted,



James S. Blaszak

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

In the Matter of	)	
Numbering Resource Optimization	)	CC Docket No. 99-200
	)	
Petition for Declaratory Ruling and	)	CC Docket No. 96-98
Request For Expedited Action on the	)	
July 15, 1997 Order of the Pennsylvania)	)	
Public Utility Commission Regarding	)	
Area Codes 412, 610, 215, and 717	)	

**COMMENTS OF THE  
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February 12, 2001

## SUMMARY

In its *Second Report and Order* in CC Docket 99-200, the Commission seeks further comments on number conservation proposals to ensure efficient use of and adequate access to numbering resources. As explained further in these Comments, Ad Hoc's recommendations on the various number conservation measures on which the *Second Further Notice* seeks comment are as follows:

***Service-Specific and Technology-Specific Overlays:*** Service-specific and technology-specific overlays are appropriate number conservation measures that should be pursued by the Commission. While the Commission has been intent on protecting the competitive position of wireless carriers in relation to landline carriers, there evidence that any but a very small portion of wireless subscribers consider wireless service to be a substitute for wireline service. The Commission, however, apparently has been unconcerned about the competitive disadvantage imposed on CLECs - the direct competitors to the incumbent LECs – through the Commission's preference for all-services-overlays. CLECs are effectively compelled to use new NXXs while the ILECs have pools of unused, familiar NXXs. Furthermore, the Commission has imposed area code relief, with the attendant costs, on landline telecommunications end users in the form of geographic splits while grandfathering wireless carriers. Ad Hoc believes that the urgency of the numbering crisis warrants

elimination of the Commission's prohibition of technology-specific overlays on a permanent basis and adoption of a policy that would allow technology-specific overlays to cover more than one pre-existing area code.

***The Rate Center Problem:*** The existence of rate centers are the primary cause of number exhaustion; aggressive consolidation of rate centers would probably prevent exhaustion from occurring. The requirement that CLECs obtain numbers in every one of the thousands of geographically distinct rate centers in which they seek to provide service has caused the rash of area code assignments since 1994 and has created the near certainty that the ten-digit North American Numbering Plan (NANP) will be exhausted in the very near future. Aggressive consolidation and/or elimination of rate centers could easily end the nation's area code exhaust problem because, (1) most carriers have more than enough numbers to satisfy end user demand if currently unused numbers within a rate center could be employed over a larger area without regard to the current rate center boundaries that no longer serve the need for which they were originally created; and (2) emerging carriers could obtain blocks of numbers in quantities more closely related to their end-user demands rather than to satisfy arbitrary geographic boundaries. To avoid NANP exhaustion, the Commission should immediately implement a federal policy that establishes a cumulative utilization threshold for NXX codes within an NPA before assignment of additional area codes is permitted for number exhaustion relief purposes. Such a policy will provide incentives to state public utility commissions to implement rate center consolidation plans, which

will in turn improve number resource utilization, dramatically reduce the demand for numbers by carriers, and stem the assignment of new area codes.

***Fee for Number Reservations:*** The Commission should dismiss the NANC's proposal to charge a fee for reserving numbers because such a policy would have little or no effect on the conservation of numbering resources. Furthermore, Ad Hoc supports the adoption of a 180 day period for reserved numbers. Carriers should, however, be allowed to extend such reservations on a month-to-month basis at the specific request of an end user. Business users need to know their telephone numbers in advance of activation because they must print stationery and a variety of business documents, allow time for their number to appear in directories, and inform their customers of changes. Unforeseen events may occur that require an extension of the reservation period. The Commission should dismiss the NANC's proposal to charge a fee for reserving numbers.

### ***Developing Market-Based Approaches for Optimizing Numbering***

***Resources:*** As is evident by the numerous specific and as-yet unanswered (perhaps unanswerable) questions posed by the Commission in the *Second Further Notice*,<sup>1</sup> the development and implementation of a competitively-neutral pricing plan for numbers (if such a thing even exists) is an onerous problem. Other number resource optimization

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<sup>1</sup> *Second Further Notice*, at paras. 158-178.

measures, namely rate center elimination/consolidation, can solve the nation's numbering crisis without the need for developing a complicated (and likely discriminatory and anticompetitive) market-based allocation method. In the event that the Commission moves forward in developing a market-based allocation scheme, it should seriously consider imposing such costs solely upon the parties responsible for requiring the adoption of this imperfect and inequitable "solution", the incumbent local exchange carriers.

***Recovery of Shared Industry and Direct Carrier-Specific Pooling Costs:***

Separate recovery of the direct costs of implementing thousands-block number pooling is unnecessary because the incremental costs of implementation are far outweighed by the costs associated with the continuance of current area code assignment practices. The Commission has consistently treated area code relief costs as an ongoing cost of doing business and should continue to do so. The costs of local number portability ("LNP") -- the overwhelming portion of pooling costs -- are being recovered through a separate mechanism. If the Commission does chose to adopt a mechanism for recovery of direct pooling costs it must ensure that it does not allow double-recovery of costs for functions being funded in connection with LNP.

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ATTACHMENT A:                    PETITION FOR RULEMAKING

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
Number Resource Optimization	)	CC Docket No. 99-200
	)	
Petition for Declaratory Ruling and	)	CC Docket No. 96-98
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Area Codes 412, 610, 215, and 717	)	

**COMMENTS OF THE  
AD HOC TELECOMMUNICATIONS USERS COMMITTEE**

The Ad Hoc Telecommunications Users Committee (“Ad Hoc” or the “Committee”) hereby submits its comments in response to the Commission’s December 29, 2000 *Second Further Notice of Proposed Rulemaking* (“*Second Further Notice*”) in the above-captioned proceeding.<sup>1</sup>

**I. SERVICE-SPECIFIC AND TECHNOLOGY-SPECIFIC OVERLAYS ARE APPROPRIATE NUMBER CONSERVATION MEASURES WORTH PURSUING**

The Commission has decided to revisit its prohibition against service-specific and technology-specific overlays due to evidence suggesting that the nature and

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<sup>1</sup> *Numbering Resource Optimization*, CC Docket No. 99-200, Second Report and Order and Second Further Notice of Proposed Rulemaking, FCC 00-429 (2000) (“*Second Further Notice*”).

severity of the numbering crisis has changed since the Commission's previous rulings.<sup>2</sup>

The Commission should focus its efforts in this area to expand options available to regulators for preventing the need for area code relief, particularly those opinions that promote the efficient, competitively neutral use of numbering resources in a way that minimizes costs to consumers and society. In a 1995 Declaratory Ruling, the Commission prohibited wireless overlays because it found that such overlay plans would be unreasonably discriminatory and would unduly inhibit competition.<sup>3</sup> The Commission later expanded its ruling to encompass all service- and technology-specific overlays.<sup>4</sup> In the March 2000 *Order and Further Notice*, the Commission declined to address the issue of technology-specific overlays and stated that "in the interim, our existing rules and policies with respect to these optimization measures (including the prohibition of technology-specific overlays) remain in effect."<sup>5</sup> The Commission should lift or modify the restriction on these methods of area code relief, and permit states to implement technology-specific or service-specific overlay codes within the guidelines established by the C.

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<sup>2</sup> *Second Further Notice*, at para. 128.

<sup>3</sup> *Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois*, Declaratory Ruling and Order, 10 FCC Rcd 4596 (1995).

<sup>4</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19518 (1996), at para. 285.

<sup>5</sup> *Numbering Resource Optimization*, CC Docket 99-200, Report and Order and Further Notice of Proposed Rulemaking ("*Order and Further Notice*"), at para. 9, footnote omitted.

**A. Assigning carriers to technology-specific overlays on the basis of LNP capability is both competitively neutral and the most beneficial in terms of numbering optimization goals.**

The Commission seeks comment on whether it is appropriate to assign technology-specific overlays on the basis of LNP capability. Distinguishing between carriers on the basis of LNP capability is the most appropriate, competitively neutral mechanism to use in assigning carriers to such an overlay. From a numbering optimization perspective, those carriers that will not be able to participate in number pooling should be placed in a separate area code in order to extend the life of the original area code. Thousands-block number pooling will be optimally successful only when all carriers holding numbers in a given area code are able to participate.

**B. Technology-specific overlays are no different from using geographic area code splits and cannot be successfully implemented without allowing “take-backs”.**

In paragraph 134 of the Second Further Notice, the Commission seeks comment on its tentative conclusion that the proposed transitional technology-specific overlays must be “prospective, and may not include mandatory ‘take-backs.’” The Commission reasons that “taking back” numbers from carriers being put into the technology-specific overlay would be anti-competitive because of the costs that those carriers and customers will have imposed on them. This type of overlay would affect only customers of particular technologies, who would be required to reprogram equipment, change numbers, inform customers, etc. Therefore, the Commission concludes, such a policy

would adversely affect competition.<sup>6</sup> The Joint Wireless Commenters argue that wireless carriers should not have numbers “taken back” because wireless carriers, “like all other carriers in those existing codes, are vested in those codes. There is no basis for any disruption of usage of NXX codes that have already been assigned.”<sup>7</sup> The Commission’s tentative conclusion appears to have been based primarily on short-term concerns and the arguments of the Joint Wireless Commenters’ *ex parte*. The “take back” contemplated by the Commission is no different than the geographic split “solution” that landline customers have endured when such “solutions” were implemented. When a geographic NPA is split, roughly half of all NXX codes that had been assigned to the original area code are “taken back” when the affected customers are transferred to the “new” area code. In just the past six years, nearly half of all landline telephone numbers have been subject to precisely this kind of “take back.” Thus the policy of exempting wireless services from the very same “take backs” to which landline services have been subjected is, in fact, discriminatory and should be abandoned. Wireless carriers and customers have often received special treatment and been allowed to keep their original numbers while landline customers have assumed the costs of area code relief in the form of geographic splits, often multiple times in the same area.<sup>8</sup> Landline customers and carriers should not solely bear the

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<sup>6</sup> *Second Further Notice*, at para. 134.

<sup>7</sup> Letter from Judith St. Ledger-Roty, Kelley, Drye & Warren, LLP, to Yog Varma, Deputy Bureau Chief, Common Carrier Bureau, Federal Communications Commission (November 22, 2000) at 3.

<sup>8</sup> For example, *Area Code Relief in Area Code 609*, Decision and Order, New Jersey Board of Public Utilities No. T096100763, February 3, 1999; *Investigation of the Efficient Usage of Telephone Numbering*

costs and inconveniences related to preserving the NANP. Covered CMRS carriers have already been given extra time to achieve LNP-capability.<sup>9</sup> CMRS interests should not interfere with national numbering optimization. This Commission, as recently as October 1999, stated,

“We continue to believe, however, that . . . states are best equipped to determine how the burdens associated with area code relief are most equitably distributed among various telecommunications services providers operating within their borders. That determination would include whether takebacks of wireless numbers should occur.”<sup>10</sup>

Clearly, the Commission’s policy has allowed states to determine whether wireless carriers will be grandfathered, and such policy should be continued.

Although wireless customers may need to have equipment reprogrammed to accommodate the new area code, users of landline services are also required to incur costs, which can also include reprogramming of CPE, when an area code is split. In most cases, the change of a wireless number can be made either automatically “over the air” with no involvement or effort on the part of the subscriber other than leaving the cellular or PCS phone powered up during the time slot (e.g., a three-hour period on a

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*Resources and Evaluation of the Options for Making Additional Central Office Codes and/or Area Codes Available in New York State*, New York Public Service Commission Case. 99-C-0800, November 4, 1999; The Commission has affirmed the states’ authority to grandfather Type II wireless numbers in the case of a geographic split in re: *Petition for Declaratory Ruling regarding Area Code Relief Plan for Area Codes 508 and 617, file by the Massachusetts Department of Public Utilities*, Third Order on Reconsideration of Second Report and Order, and Memorandum Opinion and Order, NSD-L-96-15, October 21, 1999, at para. 68.

<sup>9</sup> *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3112.

<sup>10</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Order on Reconsideration of Second Report and Order and Memorandum Opinion and Order (rel. October 21, 1999) at para. 68 (footnotes omitted).

particular day) when the change is to take place. Older analog handsets may require a small amount of technical support that can usually be accomplished over the telephone.

Moreover, the overall cost to a consumer to change a wireless telephone number is likely less than the cost of changing the telephone number of a landline customer because wireless customers are far less inclined to publicize their wireless telephone numbers than are landline customers. Since wireless customers pay for incoming calls, they do not typically advertise and/or freely divulge their number or print it on stationery or checks, etc. Wireless customers may not confront the same inconvenience and burden that landline customers, who are likely to receive as many calls as they make, confront when area codes change. Additionally, other non-LNP capable carriers such as paging services are not subject to LNP requirements of any kind<sup>11</sup> and can indeed make such number changes quite easily without requiring any reprogramming of CPE.

**C. The imminent exhaustion of the NANP warrants permanent elimination of the prohibition on service- and technology-specific overlays.**

In paragraph 136 of the *Second Further Notice*, the Commission seeks comment on how and when “transitional” technology-specific overlays should be converted to all-services overlays.<sup>12</sup> The Commission should not pursue a policy that considers

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<sup>11</sup> *Second Further Notice*, at footnote 338.

<sup>12</sup> *Id.*, at para. 136.

technology-specific overlays transitional in nature. Instead, the Commission should reverse its prohibition of technology-specific NPA overlays as established in CC Docket 95-19<sup>13</sup> and permit, but not mandate, state PUCs to require existing and future customers of non-LNP-capable service providers be transferred to one or more overlay NPAs or “service access codes” (SACs) as an additional number conservation measure. Non-LNP-capable service providers are unable to participate in thousands-block pooling or unassigned number porting, and their continued presence in geographic NPAs undermines the potential effectiveness of these important conservation measures.

In previously foreclosing service- or technology-specific overlays, the Commission was concerned about the anticompetitive implications of this solution as between wireline and wireless services. It failed to consider the far greater anticompetitive impacts upon new landline entrants of all-services overlays, where the incumbent LECs control massive inventories of numbers in the traditional NPA. Nor did the Commission, in those decisions, consider the immense societal costs of area code splits, both of which became the only solutions available to state commissions following the *Ameritech* ruling.<sup>14</sup>

Moreover, there is scant, if any credible, evidence that any material competition between mobile services and fixed services carriers exists (*i.e.*, that customers to any

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<sup>13</sup> *Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois*, CC Docket No. 95-19, Declaratory Ruling and Order, (1995).

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

material degree substitute one service for the other), or that competition or substitution is likely to materialize in the near future. A service- and technology-specific overlay is competitively discriminatory if and only if the service providers in the original and in the overlay area codes actually compete directly with one another. While the possibility exists that, at some point in the future, wireline and wireless services may compete directly, there is no evidence to support such a conclusion in the current telecommunications marketplace. Indeed, despite the enormous growth in CMRS penetration rates (currently in the 32% range nationwide),<sup>15</sup> there is no evidence of any commensurate net decrease in the demand for basic wireline exchange access;<sup>16</sup> indeed, the demand for *additional* residential access lines has been climbing.<sup>17</sup> In addition, in its yearly report on the condition of the commercial mobile services market, the FCC reported that just 2% of survey respondents used mobile phones as their *only* phone, thereby substituting wireless for wireline phones.<sup>18</sup>

On the other hand, wireline exchange services furnished by incumbent local exchange carriers (ILECs) compete directly with wireline exchange services offered by CLECs. Under an all-services overlay, CLECs are disproportionately assigned

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<sup>15</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Fifth Report, FCC 00-289 (2000) at 4.

<sup>16</sup> FCC Industry Analysis Division, *Trends in Telephone Service*, December 2000, Table 8.4.

<sup>17</sup> According to the FCC, there were 28.6-million "additional" or "second" residential access lines by the end of 1999. *Id.*

<sup>18</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, Fifth Report, FCC 00-289 (2000) at 15.

numbers in the overlay NPA while the ILEC controls the overwhelming inventory of numbers within the traditional geographic area code. As long as consumers perceive that traditional area codes as providing some specific geographic identification, they will resist accepting overlay NPA numbers notwithstanding the matter of how many digits callers are required to dial in an all-services overlay situation.

Table 1				
The Incumbent Carrier Dominates NXX Code Usage in the Original NPA for those Area Code Relief Plans Using Overlays since 1995				
	Maryland original NPA of 410		Maryland 443 NPA Overlay	
Carrier Type	Number of NXXs	Percentage of Total NXXs	Number of NXXs	Percentage of Total NXXs
CLEC/CAP/L Reseller	85	11%	483	76%
RBOC/ICO	545	71%	41	6%
Wireless/PCS	142	18%	110	17%
Total	772		634	
	Maryland original NPA of 301		Maryland 240 NPA Overlay	
CLEC/CAP/L Reseller	143	19%	336	76%
RBOC/ICO	475	62%	38	9%
Wireless/PCS	149	19%	66	15%
Total	767		440	
	Florida original NPA of 305		Florida 786 NPA Overlay	
CLEC/CAP/L Reseller	112	15%	89	43%
RBOC/ICO	363	48%	29	14%
Wireless/PCS	283	37%	87	42%
Total	758		205	
	Colorado original NPA of 303		Colorado 720 NPA Overlay	
CLEC/CAP/L Reseller	144	18%	125	42%
RBOC/ICO	459	59%	87	29%
Wireless/PCS	176	23%	85	29%
Total	779		297	
	Pennsylvania original NPA of 215		Pennsylvania 267 NPA Overlay	
CLEC/CAP/L Reseller	142	19%	464	85%
RBOC/ICO	442	58%	19	3%
Wireless/PCS	172	23%	65	12%
Total	756		548	
	Pennsylvania original NPA of 610		Pennsylvania 484 NPA Overlay	
CLEC/CAP/L Reseller	216	29%	495	89%
RBOC/ICO	368	49%	23	4%
Wireless/PCS	168	22%	38	7%
Total	752		556	
	Georgia original NPA of 770		Georgia 678 NPA Overlay	
CLEC/CAP/L Reseller	146	19%	443	66%
RBOC/ICO	440	58%	111	16%
Wireless/PCS	179	23%	121	18%
Total	765		675	
	New York original NPA of 212		New York 646 NPA Overlay	
CLEC/CAP/L Reseller	137	18%	129	47%
RBOC/ICO	643	82%	70	25%
Wireless/PCS	0	0%	78	28%
Total	780		277	

This advantage will not disappear quickly. According to the Commission, ILECs on average utilize only 53% of the numbers that have been assigned to them,<sup>19</sup> leaving 47%, or some 254-million ILEC numbers,<sup>20</sup> available for assignment to new customers. Moreover, the typical churn rate for ILEC residential customers is roughly 25%, such that new supplies of numbers in the “traditional” geographic NPA are continually becoming available. Under an all-services overlay, the incumbent will maintain its advantage with respect to numbers that consumers perceive to be “more desirable” for many years to come. Ad Hoc’s analysis shows that the overlays adopted since 1995 have followed the pattern described above. As shown in Table 1, ILECs have been able to maintain “ownership” of the majority of NXX codes in the original NPA while CLECs have been forced to accept numbers in the overlay or new “less desirable” NPA.

For instance, Verizon-New York, the ILEC that serves Manhattan, holds 82% of the NXX codes in the highly desirable 212 NPA.<sup>21</sup> In Pennsylvania, ILECs and CLECs hold 58% and 19%, respectively, of the “traditional” 215 NPA that serves the Philadelphia area; by contrast, in the 267 overlay, ILECs hold only 3% of the NXX’s whereas CLECs hold 85%. Thus, while the Commission may describe overlays as

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<sup>19</sup> *Numbering Resource Utilization in the United States*, Report by Industry Analysis Division, Common Carrier Bureau, FCC (2000) (“*Number Utilization Report*”), at Table 1.

<sup>20</sup> According to the *Number Utilization Study*, ILECs maintained 540,733,000 Total Reported Numbers, 47% of which is 254,145,000.

<sup>21</sup> Telcordia, *Local Exchange Routing Guide*, (visited February 9, 2001) <[http://www.telcordia.com/products\\_services/trainfo/catalog\\_details.html](http://www.telcordia.com/products_services/trainfo/catalog_details.html)> (“*LERG*”).

applying to “all services,” in reality these overlay area codes are largely CLEC-dominated. In all-services overlays, incumbent carriers benefit by holding large inventories of the more desirable codes which puts non-incumbent carriers at a substantial competitive disadvantage. Adoption of service- and technology-specific overlays would eliminate this incumbency advantage and would free up NXX codes in the original NPA, creating numbering parity between incumbent and competitive landline carriers.

The ability to use technology-specific overlays may in fact be most important in those areas where number pooling is not immediately planned. Where incumbents do hold vast inventories of numbers and thousands-block number pooling is not used to address the problem, technology-specific overlays can be a good option for states. In paragraph 140 of the *Second Further Notice*, the Commission seeks comment on “whether there should be any limitations on when states are permitted to implement transitional technology-specific overlays,”<sup>22</sup> noting that the Joint Wireless Commenters propose such overlays only be allowed when the underlying overlay is near exhaust and only in cases where the pooling has or will shortly be implemented in the underlying area code.<sup>23</sup> Current plans for thousands-block number pooling are woefully insufficient in terms of both timing and scope. In contrast the use of technology-specific overlays is an optimization measure that can be implemented relatively quickly and can

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<sup>22</sup> *Second Further Notice*, at para. 140.

<sup>23</sup> *Id.*, at paras. 135, 140.

immediately free numbers to aid in number conservation.

Joint Wireless Commenters suggest that technology-specific overlays should not be established until “the original NPA only has remaining the greater of (1) 30 NXX codes, or (2) a quantity of NXX codes equal to the number of rate centers in the underlying NPA.”<sup>24</sup> The Commission should reject this suggestion. The triggering mechanism urged by wireless carriers would require waiting to establish a technology-specific overlay until the point where entry by one CLEC in the original NPA could lead to exhaust. At that time, area code relief would be triggered for all carriers, not just non-LNP-capable carriers. Waiting for such a “triggering mechanism” could lead to a situation in which end users are prevented from receiving numbering resources in a timely manner or from the carrier of their choice. Given the severity of the current numbering shortage, the Commission should immediately and permanently repeal the prohibition on service- and technology-specific overlays in order to provide states with an essential tool to conserve numbers and to avoid the discriminatory and anti-competitive effects inherent in all-service overlays. Area code exhaust is a topic that has been visited by many states and by countless consumers in the past few years. Few issues, if any, impact residential and business customers to the extent that the introduction of new area codes does. Through their experiences, consumers and states have come to the conclusion that technology-specific overlays are a valuable tool. State regulators in Connecticut, Massachusetts, California, Ohio and

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<sup>24</sup> *Second Further Notice*, at para. 140.

Pennsylvania have all filed petitions with the FCC seeking the authority to implement this form of area code relief.<sup>25</sup> These states have requested the ability to take matters into their own hands and implement service- and technology-specific overlays in an effort to resolve numbering problems in their own backyards: The Commission should recognize the necessity of providing the states with the authority to do so.

Technology-specific overlays have already been successful in conserving numbering resources. In an attempt to insulate fixed services from the growth of mobile services, the New York Public Service Commission in 1991 adopted a “wireless overlay” plan as part of a comprehensive settlement of the 1989 212 area code relief proceeding.<sup>26</sup> By assigning mobile services to the new 917 NPA, New York avoided additional area code splits/overlays far longer than most other large cities, many of which are considerably *smaller* than New York. Manhattan, an area with an unparalleled quantity of telephones, faxes, cellular phones, pagers, modems *and* competitive carriers, was able to forestall introduction of an additional area code in the 212 region until July 1999. The experience in New York *proves* that technology-specific NPAs are effective number conservation measures, and the Commission should no longer prohibit their adoption by state jurisdictions.

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<sup>25</sup> *Id.*, at para. 125.

<sup>26</sup> Proceeding on Motion of the Commission pursuant to Section 97(2) of the Public Service Law concerning the supply of telephone numbers available to New York Telephone Company in New York City, New York PSC Case 90-C-0347, *Order Approving Stipulation*, Issued and Effective January 7, 1991.

**D. Technology-specific overlays should be implemented over a geographic area that covers more than one pre-existing area code.**

In contrast to the suggestion of the Joint Wireless Commenters, technology-specific overlays should not correspond to the boundaries of only one existing area code.<sup>27</sup> Such a policy would perpetuate the inefficient use of NXX codes. Non-LNP-capable carriers are unlikely to need the amount of NXX codes available in the technology-specific overlay that corresponds directly to an NPA. A technology-specific overlay that, for example, covered the eastern half of Massachusetts (LATA 128) could overlay four geographic area codes and serve all non-LNP capable carriers in the Boston metropolitan area. Such an arrangement would not adversely affect wireless customers because callers in the entire LATA are currently able to call a wireless number without receiving a toll charge. Furthermore, many wireless carriers have interconnection agreements with landline carriers that provide territory-wide, as opposed to NPA-specific, access.<sup>28</sup> Many wireless telephone numbers are Type II numbers, which are served through tandem switches and not tied to a specific geographic location.<sup>29</sup>

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<sup>27</sup> *Second Further Notice*, at para. 135.

<sup>28</sup> Such agreements are generally referred to as Type II Land-to-Mobile interconnection agreements. See, for example, The Southern New England Telephone Company, Wireless Interconnection Tariff, Tariffs Part XIII, Section I, Sheet 5, Effective January 11, 1995; Nevada Bell, Tariff PSCN No. C18-A, Wireless Interconnection Service, Original page 10, Effective February 21, 1992; Bell South Telecommunications, Inc., Mississippi, General Subscriber Services Tariff, A35. Interconnection of Mobile Services, Fourth Revised Page 3.1, Effective July, 1, 1998.

<sup>29</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Order on Reconsideration of Second Report and Order and Order and Memorandum Opinion and Order, CC Docket 96-98 (1999) at footnote 221.

## II. THE ELIMINATION OF RATE CENTERS IS THE SOLUTION TO THE NATION'S NUMBERING CRISIS.

In paragraph 146 of the *Second Further Notice*, the Commission seeks comment on federal policies that could “reduce the extent to which the rate center system contributes to and/or accelerates numbering resource exhaust.”<sup>30</sup> The Commission has stated that reducing the quantity of rate centers is an attractive number conservation measure.<sup>31</sup> Indeed, not a single compelling argument has thus far been put forth to dispute the effectiveness of aggressive rate center consolidation to prolong the life of the 10-digit NANP and solve the area code exhaust problem. With exhaust of the 10-digit NANP looming in as few as five years,<sup>32</sup> the time has come to provide states with the necessary incentive to implement aggressive rate center consolidation.

### A. The Commission should not permit the ILECs short term pecuniary interests in preserving the anachronistic rate center structure to cause exhaustion of the ten digit NANP.

Rate centers exist for the sole purpose of defining distances and prices for local and toll calling. The explosion in telecommunications technology over the past two decades has both reduced the cost of telephone calls to a fraction of a cent per minute,

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<sup>30</sup> *Second Further Notice*, at para. 146.

<sup>31</sup> *Notice*, 14 FCC Rcd 10370-10376, paras. 111-121; *Second Report and Order*, at para. 8.

<sup>32</sup> North American Numbering Plan Administrator Lockheed Martin CIS, *North American Numbering Plan Exhaust Study*, April 22, 1999 (“*Numbering Plan Exhaust Study*”), at 2-1, (visited February 7, 2001) <<http://www.nanpa.com/reports/index.html>>. NANPA has also analyzed possible exhaust dates assuming full implementation of the FCC’s thousands-block pooling plan. Under various assumptions, exhaust of the ten-digit NANP is extended only to between 2015 and 2025. See NANPA report to the NANC, September 19-20, 2000.

and has virtually eliminated distance as a cost driver for all telephone calls. Thus, any physical distinction that may have once existed between "local" and "toll" calls is now all but obsolete, which in turn eliminates the need for rate centers as a device for calculating distance attribute as a cost driver. Pricing in the competitive long distance market confirms that distance is not a cost driver.

The only segment of the telecommunications industry where distance-based pricing persists is in the largely *noncompetitive* local telecommunications sector, where uneconomic pricing persists. If there were the same level of competition in the local and intraLATA toll markets as exists in the interstate toll market, the elimination of both local/toll distinctions and distance-based pricing would undoubtedly occur.

The lack of effective competition in the local exchange market has permitted incumbent LECs to perpetuate the local/toll distinctions and distance-based pricing. Were rate centers to be eliminated entirely, for example, intraLATA toll services (and associated switched access service where intraLATA toll is furnished by an IXC) would effectively disappear, and these revenues would either have to be foregone or replaced. Consequently, incumbent LECs have steadfastly resisted such policies, for obvious reasons. Additionally, many state commissions have been reluctant to prescribe the types of rate restructuring that would be required, for example, to achieve revenue neutrality following a major rate center consolidation effort, because such rate structure changes would likely involve increases in the monthly rates for basic exchange service. Although customers would get a significantly expanded local calling

area in return for somewhat higher rates, those consumers who make little or no use of intraLATA toll, would see an overall increase in their monthly phone bill.

On a nationwide basis, the total elimination of rate centers and intraLATA toll would affect some \$2.7-billion in annual intraLATA toll revenues.<sup>33</sup> The impact of this policy on local rates will vary widely from state to state due to variation in the nature of local calling areas and the proportion of total ILEC revenues that are derived from intraLATA toll. In fact, this value represents an *upper limit* on the extent to which local rates would need to increase were all rate centers eliminated. Offsetting these foregone intraLATA toll revenues would be the savings realized in administrative and billing costs and improved overall network utilization. The actual impact on local rates would be dwarfed by the societal benefit of avoiding the economic waste, which the Commission estimates to be between \$50 and \$150 billion, flowing from exhaustion of the ten digit NANP.

The ILECs' pecuniary interests in preserving a century-old and technologically obsolete pricing scheme should not undermine the number resource management process. It would be an egregious squandering of the nation's economic resources if preservation of an anachronistic monopoly-era pricing system forced expansion of the NANP.

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<sup>33</sup> Economics and Technology, Inc., *Where Have All the Numbers Gone? Rescuing the North American Numbering Plan from Mismanagement and Premature Exhaust (second edition)*, June 2000, at 33.

**B. The Commission should require states to meet utilization thresholds for NPA codes in addition to NXX codes before allocating additional NPAs to the states.**

Carrier demand for numbers is high even when consumer demand for numbers is low. It is readily apparent that utilization rates for ILECs, CLECs and wireless carriers are quite low,<sup>34</sup> due to the fact that carriers currently require blocks of numbers in each and every rate center in which they seek to provide service, irrespective of the quantity of customers to which they provide service. The effect that this number assignment methodology can have on the depletion of numbering resources is exemplified by the situation in Massachusetts. There are currently five area codes in Massachusetts, or 38.5-million telephone numbers,<sup>35</sup> to serve an end-user demand of about 6.2-million,<sup>36</sup> which implies industry-wide utilization of only about 16%. Based on utilization alone, it is readily apparent that five area codes provide more than enough *unassigned* telephone numbers available to satisfy end user demand. Nonetheless, on May 1 of this year, four new area codes will be activated in Eastern Massachusetts.<sup>37</sup> Combined

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<sup>34</sup> See generally, *Numbering Resource Utilization in the United States*, Report by Industry Analysis Division, Common Carrier Bureau, FCC (2000) ("*Number Utilization Report*"). Utilization rates are calculated by "dividing all assigned numbers (numerator) by total numbering resources assigned to that carrier in the appropriate geographic region (denominator)..." *First Report and Order*, 15 FCC Rcd 7619, at para. 109.

<sup>35</sup> Each area code has a capacity of 7.7-million assignable numbers.

<sup>36</sup> There are 4,313,988 ILEC switched access lines and 384,548 lines attributed to CLECs in Massachusetts. Industry Analysis Division, Common Carrier Bureau, FCC, *Trends in Telephone Service*, December, 2000, at Table 9.5. Wireless subscribers of 1,536,650 is estimated by tabulating the total NXX codes held by cellular and paging carriers in Massachusetts (365 codes, or 3,650,000 numbers), and applying the combined nationwide utilization rate for cellular and paging carriers (42.1%). Local Exchange Routing Guide, January, 2001; *Number Utilization Report*, at Table 1.

<sup>37</sup> Petition of Lockheed Martin IMS, the North American Numbering Plan Administrator, for area code

with an additional NPA pending approval in the Western Massachusetts LATA, the potential stock of numbers available for assignment in Massachusetts will double to 77-million, which will in turn halve the industry utilization rate to about 8%.

Improving utilization rates is the key to using numbering resources efficiently. Because it is beyond the Commission's authority to effect policies that would dramatically increase end user demand for numbers (the numerator), it is necessary to focus on reducing the quantity of numbers assigned to carriers (the denominator). The elimination of rate centers would accomplish this goal.

Rather than mandate states to eliminate rate centers outright, the Commission should immediately implement a federal policy wherein a cumulative utilization threshold must be met by all carriers as a whole within an area code prior to receiving assignment of additional area codes for relief purposes in that region. As described in greater detail in its Petition for Rulemaking, attached hereto as Attachment A, Ad Hoc urges the Commission to adopt an NXX utilization rate of 44% that must be met within each NPA before the Commission will permit the release of a new NPA for purposes of number exhaustion relief. Over time the threshold should be increased to a 60% utilization rate. Setting an industry-wide utilization requirement within an NPA will (in most areas) require state public utility commissions to move forward with the

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relief for the 508, 617, 781 and 978 area codes in Eastern Massachusetts, *Order*, MA DTE Docket No. 99-11, April 25, 2000 ("*MA Area Code Order*"), at 33. The Massachusetts DTE examined rate center consolidation in DTE Docket 98-38. However, the DTE ultimately concluded that rate center consolidation could not be implemented in time to forestall the need for new codes in Eastern Massachusetts. *MA Area Code Order*, at 18-19.

consolidation and elimination of rate centers. As a result, the quantity of numbers demanded by carriers will decrease dramatically,<sup>38</sup> the utilization rate of numbers will increase dramatically, and today's excessive quantity of stranded, unusable numbers will decline sharply. Numbers reclaimed from local service carriers that no longer need numerous blocks of numbers simply to establish a service "footprint" will provide the geographic region with thousands (perhaps millions) of additional telephone numbers available for assignment to carriers who demonstrate need, and the demand for additional area codes will be abated.

Using its jurisdictional authority as granted in Section 251(e) of the Telecommunications Act of 1996, Ad Hoc urges the Commission to adopt its recommendation of an NPA-utilization threshold as a matter of national numbering policy. By doing so, state public utility commissions will be presented with the necessary incentives to aggressively consolidate and/or eliminate rate centers.

**C. Implementation of AIN-based call rating systems raise various consumer protection issues, and it is unlikely that such a number optimization measure would forestall NANP exhaust.**

The Commission seeks comment on the possibility of replacing the existing call rating function of rate center-based telephone numbers with some alternative call rating device that is not number-dependent.<sup>39</sup> While such an arrangement is theoretically

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<sup>38</sup> With fewer rate centers, fewer unique blocks of numbers are required by a carrier to provide service over a given area.

<sup>39</sup> *Second Further Notice*, at para. 148.

possible using Advanced Intelligent Network ("AIN") capabilities present in many (but by no means all) LEC central office switches, its implementation would as a practical matter raise a broad range of consumer protection issues and, in any event, would not be possible within the time frame necessary to forestall or prevent NANP exhaust.

An AIN-based call rating system would require that call rating information be determined through some sort of data base "dip" that would translate the dialed number into a specific geographic location that could then be used to rate each call. This process would necessarily have to occur in real time, i.e., at the time that the call is placed, because the caller may require access to call rating information both for purposes of determining whether the call should be made in the first place, or for cost-recovery purposes where call detail information is collected and a charge is applied to the individual placing the call (as, for example, in a hotel or payphone). Today, individual consumers as well as business telephone systems such as PBXs and electronic key telephone systems are capable of extracting the required rating information based entirely upon the dialed number. From the dialed number, CPE can determine whether the call is local or toll, intrastate or interstate. CPE can be programmed to restrict toll calling or route toll calls to Station Message Detail Recording ("SMDR") functions within the customer's PBX. For these functions to be accomplished under a system in which all geographic and call rating detail is removed from the dialed number, customers and CPE would require the capability to receive and to process in real time the call rating information resulting from the carrier's data base

“dip.” Separate and apart from the costs that carriers would incur to acquire and install the various hardware and software upgrades they would need to support such an arrangement, customers would be forced to incur potentially large costs to upgrade or replace CPE with equipment capable of receiving and processing the call rating information. Even if all of these carrier and customer hardware/software upgrades and replacements could be feasibly accomplished, which is highly doubtful, there is no practical way in which this fundamental change in the manner in which calls are rated could be implemented nationwide within a time frame that would affect the impending exhaust of the NANP.

As Ad Hoc has noted above, local/toll rate distinctions and distance-based call rating are anachronisms from a bygone technological and monopoly era that could survive under competitive market conditions. It makes no sense for the nation to embark upon a costly re-tooling of the entire PSTN merely for the purpose of preserving an outdated pricing arrangement. The correct and efficient solution to eliminating geographic information from telephone numbers is to eliminate geographic information from call rating altogether – and the best way of accomplishing that is through the elimination of rate centers.

### **III. THE COMMISSION SHOULD DISMISS THE NANC’S PROPOSAL TO CHARGE A FEE FOR RESERVING NUMBERS.**

Ad Hoc supports the Commission’s decision to extend the maximum period for

reserving numbers to 180 days. Reserved numbers are numbers that are being “held by service providers at the request of specific end use customers for their future use.”<sup>40</sup> As a number conservation matter, reserved numbers represent a very small percentage of the number inventory of a given carrier. Furthermore, these numbers are not comparable to numbers that become stranded due to current allocation practices and are thus rendered unusable. Numbering resources are placed in the reserved number category when a carrier receives a bona fide request from an end user to do so. As the Commission acknowledged, many customers, especially business customers, need to know their telephone numbers in advance of the activation of the number.<sup>41</sup> Business customers must print stationery and business cards, have their telephone numbers printed in telephone directories, and inform current customers of these changes.

The Commission should not adopt the NANC’s proposal to charge a fee to carriers and/or end users to extend the time period for which numbers can remain in reserved status.<sup>42</sup> Unforeseen events may occur which may require such an extension and Commission policy should allow for extensions on a month-to-month basis in the case of a genuine request by an end user. National numbering policy should not hinder customer access to numbering resources. Rather than further penalizing users for inadequate number conservation measures, the Commission should instead focus upon optimization solutions such as thousands-block number pooling, rate center

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<sup>40</sup> *Second Further Notice*, at para. 113.

<sup>41</sup> *Id.*, at para. 114.

consolidation, and technology-specific overlays that will free up great quantities of stranded numbers.

**IV. A MARKET-BASED APPROACH TO DISTRIBUTING NUMBERING RESOURCES TO CARRIERS IS UNWORKABLE AND UNLIKELY TO BE EFFECTIVE IN DELAYING OR ELIMINATING EXHAUST OF THE NANP.**

As the Commission readily admits in response to its initial request for comments through the *Notice*, “most commenters opposed market-based allocation of numbering resources.”<sup>43</sup> Nevertheless, the Commission states that it “continue[s] to believe that market-based methodologies for allocating numbering resources, either in conjunction with or as a substitute for some or all of the existing allocation rules, may best ensure that numbers will be allocated efficiently, provided that they are structured on an equitable and non-discriminatory basis.”<sup>44</sup>

**A. A market based number allocation scheme is unworkable.**

The Commission should reject a pricing for numbers scheme, for the following reasons: (1) it is extremely unlikely that the correct economic cost of a telephone number will be established by the Commission; (2) pricing for numbers for competitive reasons must be imposed not just on new number requests but also on embedded

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<sup>42</sup> *Id.*, at para. 152.

<sup>43</sup> *Id.*, at para. 156. The tepid support for this proposal expressed by “some” state utility commissions should not be the basis upon which the Commission promotes or implements a market-based allocation system for numbering resources.

<sup>44</sup> *Id.*, at para. 157.

numbers held by carriers; (3) allocating payments based on numbers assigned to carriers does not address how cost recovery for “ported” numbers would be handled; (4) the underlying economic basis for placing a price on a number will be eliminated if (when) the carrier passes these charges on to end users; (5) high prices for numbers will represent yet another barrier to entry for competitive carriers, while low prices for numbers may ultimately have no effect whatsoever on the consumption of numbers by carriers; (6) carriers ultimately are forced to obtain large quantities of numbers due to the archaic rate center construct that serves only to advantage incumbent carriers; (7) numbers in “old” NPAs would likely be valued higher than numbers in “new” NPAs, leading to bidding wars for “desirable” numbers that the wealthiest carriers – the RBOCs and other ILECs – would be most likely to win; and (8) “market-based” and “needs-based<sup>45</sup>” allocations of numbers run contrary to one another, such that if one policy is working correctly, there should be no need for the other. For all of the foregoing reasons, Ad Hoc continues to believe that the concept of implementing a number-pricing plan as a number optimization measure is without merit, and should be shelved by the Commission.

**B. A market based number allocation scheme contradicts the Commission’s stated policy goals.**

In addition, Ad Hoc contends that imposing a market-based allocation plan for

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<sup>45</sup> For example, the Commission’s recent determination to establish specific rate center-based utilization levels that must be met prior to obtaining growth codes. *Second Report and Order*, at paras. 21-24.

numbers runs contrary to the FCC's own policy goals regarding number resource optimization. In its *Notice*, the FCC stated that, in creating standards for number resource optimization, it seeks to:

(1) minimize the negative impact on consumers; (2) ensure sufficient access to numbering resources for all service providers that need them to enter into or to compete in telecommunications markets; (3) avoid, or at least delay, exhaust of the NANP and the need to expand the NANP; (4) impose the least societal cost possible, in a competitively neutral manner, while obtaining the highest benefit; (5) ensure that no class of carrier or consumer is unduly favored or disfavored by our optimization efforts; and (6) minimize the incentives for carriers to build and carry excessively large inventories of numbers.<sup>46</sup>

There is no basis for concluding that a market-based allocation system for numbers can meet any of these goals.

First, there is simply no evidence that the demand for numbering resources – and specifically the demand for an NXX presence in each rate center in which a carrier wants to offer service – is being influenced to any measurable extent by the absence of a “price” for those numbers. If, as argued in Section II, *supra*, the principal source of carrier demand for numbering resources is the archaic rate center structure, then the practical effect of charging carriers for numbers – if it works to deter demand – would be to reduce competition, by discouraging CLECs from offering service in exchanges in which the cost of obtaining numbers would not be justified. Alternatively, presuming carriers will still be able to afford to purchase numbers as needed to provide service

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<sup>46</sup> *Notice*, 14 FCC Rcd 10326, para. 6. These goals are also reiterated in the *First Report and Order*, 15 FCC Rcd 7578, para. 3.

(which is in no way certain), a pricing plan may well have no impact upon a carrier's demand for numbers, because carriers will still be required to obtain numbers in blocks of 10,000 (or 1,000, where number pooling has been implemented). The demand for numbers by carriers may remain high, which results in the continued drain on assignable NPAs. Moreover, carriers will likely seek to pass the fees imposed by a number pricing scheme on to end users through higher rates.<sup>47</sup> Neither of these results can realistically be considered to minimize the negative impacts of the current numbering crisis on consumers.

Second, the very concept of setting a pricing plan for numbers serves to limit carrier access to numbering resources. Rather than ensuring sufficient access to numbers, the FCC's plan would do just the opposite by providing absolutely no certainty that all service providers would have access to the numbering resources necessary to permit them to enter into or compete in telecommunications markets.

Third, no party, including the Commission, has presented any evidence that would indicate that a number pricing scheme would "avoid, or at least delay, exhaust of the NANP." If prices are set at a relatively low level, this scheme will have no impact whatsoever upon carrier demand for numbers. If prices are set at a relatively high level, only those carriers with significant financial resources will have the means to obtain the quantities of numbers required to provide service in many geographic areas

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<sup>47</sup> As Ad Hoc has argued before, should the FCC implement a number pricing plan, it is imperative that carriers are forbidden from passing these fees along to consumers. See Comments of the Ad Hoc Telecommunications Users Committee in CC Docket 99-200 (filed May 19, 2000) at p. 11.

(as dictated by the one-block-of-numbers-per-rate-center construct in place today).

While the latter *may* result in a delay of NANP exhaust due to the existence of fewer viable carriers, it will come at the expense of competitive entry in the local markets, a policy that is equally as important as saving the ten-digit NANP.

Fourth, given that prevention of NANP exhaust is not guaranteed by a market-based allocation scheme, there is no indication that such a plan will impose the “least societal cost possible.” Indeed, should competitive entry decline or cease altogether *because* of inappropriately-set number prices, such a plan will impose enormous and irreversible costs upon society. Although the Commission agrees that any pricing mechanism must be competitively neutral, it fails to acknowledge the extreme unlikelihood that such a system can be devised, as no commenting party has come forth with such a proposal in the 18-month period since the Commission first expressed interest in this number optimization measure.<sup>48</sup>

Fifth, given the expectation that no number pricing plan will be competitively-neutral, the Commission will be unable to “ensure that no class of carrier or consumer is unduly favored or disfavored.” In contrast to large, established incumbent LECs and IXCs, smaller new entrants will be adversely affected by *any* type of number pricing plan, primarily because these fees will be imposed upon the enormous quantity of embedded and future numbers that carriers are *required* to obtain in order to provide

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<sup>48</sup> It would appear that no party has come forth with a viable number pricing proposal, since the Commission currently seeks “specific proposals on how to structure such a system.” *Second Further Notice*, at para. 157.

service across large geographic regions.<sup>49</sup> Moreover, the recent economic downturn has hit CLECs particularly hard. Many carriers have seen their stock prices tumble over the past year or more.<sup>50</sup> The Commission should refrain from imposing additional costs on nascent carriers at a time when the very financial viability of many of these carriers is in question.

Finally, the Commission should recognize that well-financed carriers will *always* be incented to carry large quantities of numbers if it provides them with a competitive advantage. For this reason, the Commission's concerns about "stockpiling" of numbers by well-financed carriers to keep them from less competitors with fewer financial resources are fully justified,<sup>51</sup> but no one has indicated that imposing a market-based number allocation plan will deter large carriers from stockpiling numbers.

**V. CARRIERS DO NOT REQUIRE ADDITIONAL COST RECOVERY FROM CONSUMERS FOR THE IMPLEMENTATION AND ADMINISTRATION OF THOUSANDS-BLOCK NUMBER POOLING.**

Pursuant to section 251(e) of the Communications Act of 1934, as amended, (the Act), the Commission has designated thousands-block number pooling as a

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<sup>49</sup> Once again, large demand for numbers results largely from the existence of the huge quantity of minute rating areas.

<sup>50</sup> A CLEC group tracked by analysts at Morgan Stanley Dean Witter has declined 69% over the past 12 months. Morgan Stanley Dean Witter, Equity Research: North America, Industry: Competitive Local Exchange Carriers ("*CLECs*"), January 30, 2001, at 1.

<sup>51</sup> *Second Further Notice*, at para. 163. "Stockpiling" by well-financed carriers is not limited solely to numbering resources. Recently, Verizon Wireless spent \$4-billion on PCS wireless spectrum in New York City to add to its already "strong spectrum position." Analysts concluded that the reason for the enormous capital outlay was to either "ensure its dominance" in the wireless data market or to "block competitors" from doing the same. TR Daily, January 29, 2001.

“mandatory nationwide numbering resource optimization strategy” to be adopted by all LNP-capable carriers.<sup>52</sup> The Commission has expressed reluctance to adopt a specific cost recovery mechanism without a better understanding of the magnitude of the incremental costs involved and has repeatedly asked for further comment on this matter.<sup>53</sup> Ad Hoc believes that there is no need for separate recovery of “direct” costs associated with thousands-block pooling (whether shared or carrier specific), because the incremental costs of implementing thousands-block pooling are less than the costs associated with the perpetuation of current area code “relief” practices. Moreover, should any incremental costs be demonstrated to exist, their recovery through a regulatory mechanism, such as the price cap “X-factor” adjustment, would violate the principle of competitive neutrality reflected in section 251(e) of the Act.

The Commission has appropriately recognized the thousands-block pooling is a form of number administration.<sup>54</sup> Today, the standard industry response to number shortages is the implementation of a new area code. The repeated opening of new area codes imposes significant costs on carriers and end users. Thousands-block pooling is the responsible alternative to the long-standing and wasteful industry practices that have made NANP exhaust an imminent threat.

The Commission has emphasized “that cost studies should take into account the cost savings associated with thousands-block number pooling in comparison to the

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<sup>52</sup> 47 USC §251(e) (1998); *Order and Further Notice*, at paras. 122 and 125.

<sup>53</sup> *Id.* at paras. 252-253; *Second Further Notice*, at paras. 179-182.

current numbering practices that result in more frequent area code changes.”<sup>55</sup> In its

*Order and Further Notice*, in March 2000, the Commission stated:

We believe that the implementation of thousands-block number pooling as a means of preventing number exhaust will result in certain cost efficiencies that do not inure to carriers under other methods (*e.g.*, area code splits and overlays, addition of another digit). We request that carriers determine their potential cost savings resulting from thousands-block number pooling by analyzing the avoided costs associated with thousands-block number pooling in comparison to the current practices that result in more frequent area code changes. The carriers also should include an analysis of the differences between the shared industry costs associated with thousands-block number pooling and the shared industry costs, if any, associated with the current practices that result in more frequent area code changes.<sup>56</sup>

Ad Hoc does not have access to the information necessary to generate a cost study based upon ILECs’ costs. It would appear, however, that substantial costs will be avoided by implementing thousands-block pooling. Area code expenses must be incurred each and every time a new code is opened, whereas the costs of implementing the approved software for thousands-block pooling will be accomplished substantially through a one-time software deployment, with minor periodic updates. One major ILEC has estimated the cost for a single area code upgrade at approximately \$6-million.<sup>57</sup> If that amount is similar to the costs incurred by other

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<sup>54</sup> *Order and Further Notice*, at para. 192.

<sup>55</sup> *Second Further Notice*, at para. 182.

<sup>56</sup> *Order and Further Notice*, at para. 215.

<sup>57</sup> In its 1996 annual price cap filing in Illinois, Ameritech estimated the cost for opening a new area code at \$6-million. *Illinois Bell Telephone Company: Annual Filing for Noncompetitive Services under an Alternative Form of Regulation*, ICC Docket No. 96-0172, 1996 Ill. PUC Lexis 324, at 4, (ICC June 26, 1996) (“*ICC Annual Price Cap Filing*”).

carriers (CLEC and IXC), plus those incurred by consumers, and this amount is multiplied by the ever-expanding number of new area codes, it seems more likely that number pooling will save carriers money over time than that pooling will result in a net positive cost.

This threshold comparison does not take into account the costs of NANP exhaust (estimated by the Commission to be as high as \$150-billion<sup>58</sup>), which will only be accelerated by continuation of current area code practices. Thousands-block number pooling, on the other hand, will significantly lengthen the time to exhaust or -- if used with other numbering optimization measures -- completely obviate the need for NANP expansion. If only a fraction of the savings from preserving the NANP are included as a cost saving resulting from pooling, it is hard to imagine that any positive incremental costs would remain.

Number pooling serves as an alternative to wasteful number deployment, and as such, it is reasonable to expect price-cap LECs to redirect financial resources to finance the implementation and administration of number pooling, rather than seeking additional recovery for these costs. Thus, an exogenous adjustment for price-cap LECs is unwarranted. To do otherwise would not be consistent with the Commission's past treatment of area code implementation costs. In the past, when ILECs have opened up new area codes, they have treated the costs as an ongoing cost of doing business. Such costs have never been treated as exogenous adjustments by the FCC;

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<sup>58</sup> *Notice*, 14 FCC Rcd 10337, at para. 34, citing NANC Meeting Minutes, February 18-19, 1999.

in fact, to Ad Hoc's knowledge, no price cap LEC has ever sought such an adjustment in a federal price cap filing.<sup>59</sup> No vast new cost recovery initiative is required in connection with thousand-block pooling.

**VI. THE EXPANSION OF THOUSANDS-BLOCK NUMBER POOLING TO INCLUDE ALL CARRIERS WILL FURTHER PROMOTE THE EFFICIENCY OF NUMBER ALLOCATION.**

Ad Hoc supports the Commission proposal to require all carriers, regardless of current rules regarding LNP-capability, to participate in thousands-block pooling.<sup>60</sup> Participation of all carriers in thousands-block pooling will provide for greater success in numbering resource conservation efforts and is the most competitively neutral solution. Number utilization studies performed by the NANP Administrator show that thousands-block pooling will be most effective if all carriers in a rate center participate. Specifically, Lockheed Martin, the former NANP administrator, found that “[f]ull participation in pooling reduces CO Code consumption to less than 25% of the original CO Code demand rate without pooling.”<sup>61</sup> Clearly, either partial participation in terms of geographic area or partial participation in terms of number and type of carrier

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<sup>59</sup> In 1994, several ILECs filed tariffs that included special non-recurring charges for the costs of opening a new area code that was reserved exclusively for the use of a single customer (the federal government's National Communications System (NCS)). In defending their proposal, the LECs distinguished the costs associated with this user-specific area code as “unlike” the costs of codes opened for general public use, where the ILECs did not pursue specific cost recovery from end users. GTE Telephone Operating Companies Tariff F.C.C. No. 1, Transmittal No. 900, GTE System Telephone Companies Tariff F.C.C. No. 1, Transmittal No. 102, US West Communications Tariff F.C.C. No. 5, Transmittal No. 519, The Southern New England Telephone Tariff F.C.C. No. 39, Transmittal No. 621, Order, 9 FCC Rcd 5758 (1994).

<sup>60</sup> *Second Further Notice*, at paras. 184-185

<sup>61</sup> *Numbering Plan Exhaust Study*, at 4-2.

drastically reduces the effectiveness of thousands-block number pooling in terms of avoiding NANP exhaust. Thus, the benefits to number optimization efforts outweigh the associated costs of pooling.

The Commission's continued insistence on a limited rollout of thousands-block pooling has hampered state efforts to implement effective numbering optimization policies. For example, The Iowa Utility Board's efforts to implement numbering optimization measures on a wider basis throughout the state have been frustrated by the Commission's adherence to defining areas according to their inclusion within the top 100 MSAs, despite overwhelming evidence that the numbering problem is not limited to metropolitan areas. Iowa has just implemented its fifth area code, which provides the state with 38.5-million telephone numbers to serve a population of 2.9-million. The Iowa Utilities Board filed a petition with the FCC requesting authority to implement thousands-block pooling in both the 319 and 515 NPAs. The Commission denied granting authority to the Board to implement thousands-block pooling in the 319 NPA because it was not located in one of the top 100 MSAs, and because the Board failed to demonstrate that the majority of carriers in the 319 NPA were LNP-capable.<sup>62</sup> Moreover, the Commission has not granted authority to state utility commissions to require carriers to become LNP-capable outside of the parameters previously established by the Commission, thus effectively limiting the further implementation of

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<sup>62</sup> *Numbering Resource Optimization*, CC Docket No. 99-200, DA 00-1616, Order, (2000) at paras. 31-32. In the same order denying Iowa's petition, the Commission denied similar requests by the utility commissions of Utah and Pennsylvania to expand the implementation of LNP-capability. *Id.*, at para. 69.

thousands-block pooling.

**VII. AD HOC SUPPORTS THE USE OF A “SAFETY VALVE” FROM THE GENERAL WAIVER PROCESS FOR THE GROWTH NUMBERING RESOURCE REQUIREMENTS.**

Although it cannot contribute to the Commission’s request for information on the extent to which carriers are prevented from meeting rate center-based utilization thresholds when they actually need numbers to serve end users,<sup>63</sup> Ad Hoc supports the Commission’s efforts to ensure that NANPA and/or the state commissions have the appropriate authority to depart from a rate center-based utilization threshold when necessary. Large business users sometimes require large quantities of numbers when entering a region or opening a new facility. The Commission should ensure that all carriers have the ability to provide those numbers in a timely manner. The Commission is seeking proposals that “include specific criteria for determining when a waiver is warranted,” and the “narrowly defined instances” for which NANPA and/or state commissions should permit waivers.<sup>64</sup> While Ad Hoc acknowledges the need for utilization thresholds and supports the goals of such measures, the Commission must allow NANPA and/or state commissions some latitude in their decisions in order to allow them to act appropriately when special circumstances arise. Failure to do so would threaten the ability of certain carriers to compete, would generally favor ILECs

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<sup>63</sup> *Second Further Notice*, at para. 189.

<sup>64</sup> *Id.*, at para. 189.

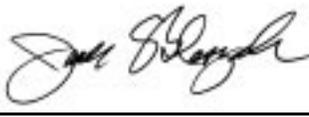
and incumbent wireless carriers, and would almost surely adversely affect the development of competition in the local market.

**CONCLUSION**

In view of the foregoing, Ad Hoc respectfully urges the Commission to adopt number conservation policies that are consistent with these comments.

Respectfully submitted

Ad Hoc Telecommunications Users Committee

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February 12, 2001

**ATTACHMENT A**

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

In the Matter of )  
Numbering Resource Optimization ) CC Docket No. 99-200  
)  
)

**PETITION FOR RULEMAKING  
AD HOC TELECOMMUNICATIONS USERS COMMITTEE**

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February 12, 2001

## **SUMMARY**

In this Petition, Ad Hoc respectfully requests the Commission to adopt, on an expedited basis, a Notice of Proposed Rulemaking that focuses specifically on the issue of rate center consolidation as an essential component of any number resource optimization plan. Current proposals and Commission efforts to identify a solution to the exhaustion of the North American Numbering Plan (NANP) will not succeed unless they include a comprehensive, nationwide solution to the problem of fragmented rate centers. By seeking comment on this issue now, the Commission will facilitate the necessary step of implementing nationwide rate center consolidation, a policy that will substantially delay, and possibly prevent, the exhaustion of number resources.

The rapid depletion of area codes in the NANP has been caused primarily by the inefficient assignment of NXX codes. As described further herein, the bulk of this inefficient allocation is attributable to two causes—ten thousand-block number pooling and rate center fragmentation. In short, the available pool of numbers is divided into the blocks in which the numbers must be distributed to carriers (pooling), then divided across nearly 800 area codes, then further divided into some 800 rate centers within each area code (rate center fragmentation). The Commission, if it hopes to solve the exhaustion problem, must adopt policies that directly address both causes.

Although the Commission and various state utility commissions have undertaken certain efforts to address ten thousand-block pooling, those efforts—unless combined

with rate center consolidation—are unlikely to significantly delay the exhaustion of the NANP. Thousands-block pooling is most effective when implemented in a brand new area code in which numbers have not yet been assigned. Mature area codes, however, have few available “thousand-blocks” that have not already been contaminated by numbers assigned to a single carrier. Thus, thousands-block pooling cannot solve the NANP exhaustion problem unless coupled with the reclamation of already assigned numbers and the consolidation or elimination of rate centers. Carriers have successfully resisted reclamation of assigned numbers. Thus, the only effective measure available to preserve the ten-digit NANP is aggressive rate center consolidation.

By consolidating rate centers nationwide, the Commission will significantly reduce carrier demand for additional numbers. The proliferation of CLECs, each one of which requires a distinct block of numbers in each of the individual rate centers in which it desires to offer local telephone service, has been the primary cause of central office code exhaust and has created the greatest need for area code relief. While CLECs have been assigned quantities of NXX codes that could potentially support nearly 300 million individual telephone numbers, CLECs currently provide only 12.7 million lines to actual customers. The discrepancy between those two figures represents unused numbers that are unavailable to customers solely due to the fragmentation of the NANP across rate centers. The NANP does not have a shortage of numbers but rather a wasteful allocation that prevents accessing its full supply.

The consolidation of rate centers will not cause any significant technological or financial dislocation in the current telecommunications market. The nationwide rate center structure is an anachronism held over from a period when usage charges were distance sensitive. In competitive markets, such as those for long distance and wireless services, rates track the relevant underlying costs. In these markets, distance has become an insignificant, if not entirely irrelevant factor, for determining usage fees. Only in the non-competitive market for local services has distance sensitive calling, measured by rate centers, survived. If rate centers were consolidated, local carriers will be required to revise their rate structures for certain types of calls, an action that is primarily administrative. No significant technology upgrades to the local loop or PSTN would be required. Importantly, the most significant cost, loss of intraLata toll revenue resulting from the abolition of rate centers, totals at most \$2.7 billion. When compared with the costs of NANP exhaust, estimated by the Commission to be between \$50 and \$150 billion, the economic choice for the Commission should be clear.

Thus far, the individual states have been unwilling to undertake meaningful rate center consolidation in the absence of a national policy mandating such action. The Commission has plenary authority over the NANP under the 1996 Telecommunications and should exercise that authority to establish NXX utilization thresholds across NPAs that must be met by a state before additional NPAs will be assigned for relief of number exhaustion. The freshly-minted Commission policy of imposing specific utilization levels on carriers in order to obtain growth NXX codes in any given rate center will be

largely ineffective as long as the number of individual rate centers remains as large as it currently is. Therefore, the Commission should adopt a utilization threshold for NXX numbers within any NPA equal to 44% that must be met before the NANPA will release any additional NPAs to the state utility commission for numbering relief purposes. Such a standard will impose minimal burdens on carriers as it is consistent with the current quantity of numbers assigned by carriers to their customers divided by the total quantity of numbers assigned by NANPA to the carrier. To encourage improved utilization, the threshold should be raised by 5% each year until it reaches a level of 60%, which is consistent with the Commission's utilization threshold for growth NXX codes within rate centers.

In the absence of a Commission mandated threshold, states are unlikely to consolidate their rate centers, and the ultimate goal of preventing exhaustion of the ten-digit NANP will be frustrated. The entire nation will then be subjected to the completely avoidable costs associated with the expansion of the NANP to eleven or twelve digits.

By freeing numbers that are currently unavailable, rate center consolidation will fulfill each of the Commission's number optimization policy goals by: (1) minimizing the negative impact on consumers of premature area code exhaustion by delaying or preventing the problem altogether; (2) ensuring sufficient access to numbering resources for all service providers seeking to enter the telecommunications market by increasing the quantity of numbers available; (3) avoiding the need to expand the NANP to eleven or twelve digits; (4) imposing a relatively insignificant cost upon society

in the form of lost intraLata toll revenue, especially when such cost is compared with permitting number exhaustion to occur; (5) ensuring competitive neutrality by applying a utilization standard to all carriers equally; and (6) minimizing the incentives for carriers to maintain excessively large inventories of numbers for stockpiling purposes by eliminating the “shortage” of numbers and making available a large supply of numbers currently unavailable for use.

The process of consolidating rate centers across the country will, however, take time. If the Commission waits to address the rate center consolidation issue in the current rulemaking in CC Docket 99-200, the opportunity to avoid the unnecessary and avoidable imposition of significant costs on the national economy could be lost. Because the cost of inaction is intolerably high, the Commission should pursue expeditiously the cost effective and simple solution offered by rate center consolidation.

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

**PETITION FOR RULEMAKING**

Pursuant to §1.401 of the Commission Rules, the Ad Hoc Telecommunications Users Committee (“Ad Hoc”) hereby submits this Petition for Rulemaking and respectfully requests that the Commission promulgate national policies to encourage the consolidation of rate centers which would dramatically reduce the demand for additional telephone numbers.<sup>1</sup> Current numbering policies and conservation measures, without rate center consolidation, will not prevent mandatory utilization of eleven or twelve-digit dialing in the North American Numbering Plan (NANP). The relief sought through this Petition would increase telephone number utilization rates, slow the demand for telephone numbers by carriers and, in so doing, could quite possibly eliminate any need for expansion of the existing ten-digit NANP.

**I. The Commission can significantly delay, and perhaps entirely avoid, exhaustion of the NANP by addressing both causes of the exhaustion: number pooling and rate center fragmentation.**

As the Commission is well aware, the North American Numbering Plan is currently in danger of exhausting the assignable Numbering Plan Area (NPA or area codes). Prior to 1995, there were only 152 assignable NPA codes in the NANP, eight

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<sup>1</sup> The Ad Hoc Telecommunications Users Committee consists of twenty corporate purchasers of telecommunications products and services and represents the interests of its members before governmental entities.

of which (those with the N00 format) were being reserved for non-geographic service access codes (such as 800 for toll-free service and 900 for pay-per-call). In 1995, with the introduction of so-called interchangeable NPA codes (those with 2 through 9 as their middle digit), the potential number of assignable NANP codes was increased by 640 codes, to 792. In the intervening six years (1995 through 2000), however, some 133 of these 640 additional NPA codes have either been placed in service or designated for specific assignment.<sup>2</sup> At this rate of use assignable area codes will almost certainly be exhausted by the end of this decade.<sup>3</sup>

The Commission has estimated that NANP expansion will cost between \$50 and \$150 billion.<sup>4</sup> Most of these costs will be borne by corporate, government and institutional organizations and, directly or indirectly, by consumers generally. The Commission should pursue all reasonable measures to save the economy from the enormous dead weight loss that NANP exhaust and expansion would produce.

NANP exhaust is neither inevitable nor unavoidable. Current industry focus on

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<sup>2</sup> Codes were activated at the following rate: 14 in 1995, 20 in 1996, 43 in 1997, 20 in 1998, 23 in 1999, and 13 in 2000. See NANPA, *NPA's Introduced since 1995*, current through October 30, 2000, (visited February 5, 2001), <[http://www.nanpa.com/area\\_codes/npa\\_introduced.html](http://www.nanpa.com/area_codes/npa_introduced.html)>. At least an additional 21 NPAs are currently scheduled for implementation by the end of 2001. See NANPA, *Planned NPAs Not Yet In Service*, (visited February 5, 2001), <[http://www.nanpa.com/area\\_codes/npa\\_planned.html](http://www.nanpa.com/area_codes/npa_planned.html)>. This number could rise significantly, dependent upon the resolution of numerous suspended area code relief proceedings in California, Michigan and Illinois.

<sup>3</sup> In fact, the North American Numbering Plan Administrator ("NANPA") has projected the NANP to reach exhaust as early as 2006. North American Numbering Plan Administrator Lockheed Martin CIS, *North American Numbering Plan Exhaust Study*, April 22, 1999 ("*Numbering Plan Exhaust Study*") at 2-1, (visited February 7, 2001) <<http://www.nanpa.com/reports/index.html>>.

<sup>4</sup> *Notice*, 14 FCC Rcd 10337, para. 34, NANC Meeting Minutes, February 17-18, 1999.

determining how to add one or more digits to the NANP is misguided<sup>5</sup> when less costly solutions that will render NANP expansion unnecessary are readily available to the Commission and to the state PUCs. Ad Hoc has studied this issue extensively and has determined that NANP exhaust is entirely avoidable by enacting measures that will impose a fraction of the potential societal cost that would be incurred by NANP expansion. The specific measures that the Commission adopted and/or proposed in both the *First Report and Order* and *Second Report and Order*, however, do not go far enough to prevent the impending number exhaustion. They must be supplemented with additional remedial measures described herein.

Exhaustion of the NANP is attributable to two causes: first, the method of assigning numbers to carriers in blocks of 10,000; and second, the requirement that competitive LECs be assigned blocks of numbers in each of the extraordinarily small and numerous individual rate centers that make up the nationwide service territory. The exhaustion of numbers is not the result of an inadequate supply or, as is commonly argued, increased demand for numbers. The ten-digit dialing format of the existing North American Numbering Plan can potentially support as many as 6.4 billion telephone numbers. With the combined populations of the United States, Canada, and the other sixteen Caribbean nations that currently participate in the NANP totaling

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<sup>5</sup> The Industry Numbering Council began examining the prospects for NANP expansion back in July, 1995. After reviewing some 27 possible NANP expansion plans, the INC issued a report in December, 1999 setting forth the best five options that were then under active review. Industry Numbering Council, *INC Interim NANP Expansion Report*, December 10, 1999, at 1 (visited February 7, 2001) <<http://www.atis.org/pub/clc/inc/99121025.doc>>.

about 320-million—or only about 5% of the theoretical limit of numbers—6.4 billion potentially assignable telephone numbers are more than adequate to meet numbering needs for the foreseeable future.

Instead, the impending number shortage has been caused by the inefficient allocation—or fragmentation—of the existing pool of numbers. Under current practice, numbers must be assigned to carriers in discrete blocks, each of which is tied to a specific geographic area. Thus, the 6.4 billion number capacity is fragmented across nearly 800 area codes, each one of which has a potential capacity of 8 million individual numbers. Each of the 800 area codes is further fragmented into approximately 800 central office codes (“NXX codes”) each one of which has a potential capacity of 10,000 individual numbers. Most area codes possess a specific geographic identity (*i.e.*, a state or a major portion thereof) and most central office codes similarly possess a specific geographic identity, albeit smaller in scope (*i.e.*, a city or town, or a specific portion thereof).

Historically, numbers have been assigned to individual service providers in blocks of 10,000.<sup>6</sup> Because central office codes are linked to specific geographic locations known as “exchanges” or “rate centers,” carriers desiring to do business in multiple communities will generally require multiple central office code assignments of

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<sup>6</sup> Within the past year, numbers have been assigned in blocks of 1,000 in a handful of jurisdictions where “thousands-block pooling” has been implemented. In June, 1998, Illinois became the first state to implement a thousands-block number pooling trial, followed shortly thereafter by New York. Other states, including Maine, California, New Hampshire, Texas, Illinois, and Connecticut have also implemented number pooling trials.

10,000 (or, if available, 1,000) numbers regardless of the actual, or even approximate, number of customers interested in obtaining service from that carrier. The fragmentation of number assignments across area codes, rate codes, and individual service providers prevents an excess supply of numbers in one geographic area or assigned to one carrier from being allocated to another community or carrier that may not have access to an adequate supply.

In its *Numbering Resource Optimization* proceeding, CC Docket 99-200, the Commission has thus far focused most of its attention on the pooling issue and has taken steps to reduce the quantities of numbers assigned to carriers in blocks by implementing a national roll-out of thousands-block pooling. The Commission, however, appears to have acted under the presumption that these policies could be implemented quickly and would produce immediate and measurable results.<sup>7</sup> Although thousands-block pooling addresses one cause of number exhaustion, it will not prevent the imminent exhaustion of the NANP. Only through the consolidation or elimination of rate centers can NANP exhaust be avoided. While the Commission has encouraged to state commissions to address the rate center issue<sup>8</sup> and has described rate center

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<sup>7</sup> *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574 (2000) (“*First Report and Order*”).

<sup>8</sup> Petition for Declaratory Ruling and Request for Expedited Action on the July 15, 1997 Order of the Pennsylvania Public Utility Commission Regarding Area Codes 412, 610, 215, and 717, CC Docket No. 96-98, Memorandum Opinion and Order and Order on Reconsideration, 13 FCC Rcd 19009 (1998) (“*Pennsylvania Numbering Order*”); *Numbering Resource Optimization*, CC Docket No. 99-200, Notice of Proposed Rulemaking, 14 FCC Rcd 10322 (1999) (“*Notice*”), at 10373-74, paras. 116-17.

consolidation as both an attractive numbering optimization measure<sup>9</sup> and a vitally important long-term measure to optimize the utilization of numbering resources.<sup>10</sup> It has not provided any guidelines or incentives to the states to consolidate rate centers within their jurisdictions. It is time for the Commission to implement national policies that will encourage individual states to assess and implement rate center consolidation on a nationwide basis.

**II. Nationwide adoption of thousands-block pooling, without further reforms, will not prevent NANP exhaustion.**

In its December 29, 2000 *Second Report and Order and Second Notice of Proposed Rulemaking* in CC Docket 99-200 ("*Second Report and Order*"), the Commission has adopted and/or has proposed policies intended to reduce the extent of fragmentation as a means for conserving number resources. Principal among these are raising the utilization threshold that must be satisfied before additional numbers in the same rate center can be assigned to a carrier,<sup>11</sup> and further expansion of thousands-block pooling.<sup>12</sup> In its *First Report and Order*, the Commission indicated a willingness to consider unassigned number portability and individual telephone number

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<sup>9</sup> *Notice*, 14 FCC Rcd at 10371, para. 114.

<sup>10</sup> *Id.*, at 10373, para. 116.

<sup>11</sup> *Numbering Resource Optimization*, CC Docket No. 96-98 and CC Docket No. 99-200, *Second Report and Order*, Order on Reconsideration; and, *Second Further Notice of Proposed Rulemaking*, CC Docket 99-200, (2000) ("*Second Report and Order*"), at paras. 18-33.

<sup>12</sup> *Second Report and Order*, at paras. 34-51.

pooling.<sup>13</sup> Also, in its *Second Report and Order*, the FCC indicated a willingness to revisit its prior policies with respect to service-specific or technology-specific area code assignments.<sup>14</sup> These measures, while commendable, will not solve the number resource crisis and are unlikely to materially delay the ultimate exhaustion of the NANP without additional measures.

In its *First Report and Order* in CC Docket 99-200, the Commission adopted a plan for rolling out thousands-block number pooling, beginning with the largest 100 Metropolitan Statistical Areas (MSAs). For various reasons cited in that *Order*, the Commission established a lengthy timetable for the roll-out of thousands-block pooling,<sup>15</sup> preventing implementation of this form of number resource optimization in most area codes in the immediate future. As a remedy for number exhaustion, thousands-block pooling is most effective when applied to new, largely empty area codes. As these area codes begin assigning numbers, however, and individual blocks of 1,000 numbers become contaminated with assigned numbers, the potential effectiveness of thousands-block pooling significantly diminishes, ultimately to a point where it will have little or no impact upon the life of the area code. If implemented as proposed, this particular measure will at the very most delay for a few years, the

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<sup>13</sup> *First Report and Order*, 15 FCC Rcd 7675-77, para. 227-31.

<sup>14</sup> *Second Report and Order*, at paras. 124-43.

<sup>15</sup> *First Report and Order*, 15 FCC Rcd 7644-51, paras. 157-68.

complete exhaust of the NANP.<sup>16</sup> The effectiveness of the proposed number pooling can, however, be significantly improved if combined with other number conservation measures (such as rate center consolidation) that can be pursued at both the federal and state level.

**III. The rapid depletion of NPAs has been caused primarily by inefficient assignment of NXX codes, not an increase in demand for numbers by end users.**

In contrast to popular explanations, the need for additional NPAs has not resulted from increased demand for telephone numbers for wireless phones, modem lines, and fax machines. In fact, the actual causes of the number exhaust problem are directly attributable to a combination of factors largely unrelated to the growth of end user demand for phone numbers.

The proliferation of CLECs, each one of which requires a distinct block of numbers in each of the individual rate centers in which it desires to offer local telephone service, has been the primary cause of central office code exhaust and has created the greatest need for are code relief.<sup>17</sup> As demonstrated in Table 1 below,

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<sup>16</sup> Lockheed Martin CIS, *Number Utilization and Trends*, (February 12, 1999), (“*Number Utilization Forecast and Trends*”) at 21, wherein pooling is shown to merely extend the life of the NANP, not prevent its exhaust outright. The Commission apparently does not disagree with this assessment. In its *Second Report and Order*, the Commission states that it is “confident that those [number resource optimization] steps [adopted in the *First Report and Order*], and the ones we implement in this order, will help us to achieve our goal of *extending the life of the current NANP*.” *Second Report and Order*, at para. 5 (emphasis supplied). The Commission's goal with respect to numbering resource optimization should be revised so as to adopt readily available measures that will prevent NANP exhaust, rather than simply delay it.

<sup>17</sup> In areas where number pooling has not yet been implemented, carriers must receive an entire NXX code for each rate center in which it plans on providing service. In the few areas where thousands-block number pooling is available, carriers can receive numbers in blocks of 1,000.

CLEC demand accounts for some 53% of all new NXX codes cut into service since July 1997, while ILEC demand for the same period has actually decreased.<sup>18</sup>

<b>Carrier Type</b>	<b>1997 NXX Codes</b>	<b>2001 NXX Codes</b>	<b>Percent Change</b>
ILEC	62,472	61,547	-1.5%
CLEC	6,849	29,896	336.5%
Wireless	9,892	30,861	212.0%

Sources: July 1997 and January 2001 *Local Exchange Routing Guide*.

Whereas wireless carrier demand for NXX codes was driven primarily by the actual growth in the number of wireless phones in service, CLECs have been compelled to acquire NXX codes far in excess of demand for their services. The number of wireless phones grew from 48 million in 1997 to some 97 million today,<sup>19</sup> but CLEC-provided dial tone lines account for only 12.7 million lines.<sup>20</sup> Notwithstanding this disparity of actual numbers in use, CLECs currently have some 30,000 NXX codes assigned to them, which are capable of supporting some 300 million individual telephone numbers; wireless carriers, with more than 7 times the end-user demand, have been assigned roughly the same quantity of NXX codes. In contrast to the gap between CLEC-assigned NXX codes and actual lines in use by CLECs, Table 2 shows

<sup>18</sup> Total NXX codes assigned increased by 43,091 between July 1997 and January 2001, and CLEC demand increased by 23,047, or 53%. See Table 1.

<sup>19</sup> Federal Communications Commission, CCB, Industry Analysis Division, *Trends in Telephone Service* (visited February 12, 2001) <<http://www.cs.columbia.edu/~hgs/internet/trend196/>>, December 2000, Table 12.2 ("*Trends in Telephone Service*").

<sup>20</sup> *Id.*, at Table 9.5.

that the number of NXX codes assigned to ILECs has decreased, notwithstanding the fact that ILECs have experienced nationwide access line demand growth of some 13 million lines since 1997.<sup>21</sup>

<b>Table 2</b>			
<b>Assignment of US NXX Codes by Carrier Type, 1997-2001</b>			
<b>Carrier Type</b>	<b>Growth in Access Lines/End Users Dec 1996 - June 2000</b>	<b>Growth in Numbers Assigned to Carriers July 1997 - Jan 2001</b>	<b>Numbers Assigned to Carriers per Additional End User</b>
ILEC	13,444,257	-9,250,000	-0.7
CLEC	12,746,924	230,470,000	18.1
Wireless	48,330,553	209,990,000	4.3
Sources: FCC, CCB, Industry Analysis Division, <i>Trends in Telephone Service</i> , (December 2000), Tables 9.5 and 12.2; Table 1 (above). Note: In calculating Growth in Access Lines/End Users and Growth in Numbers Assigned to Carriers, the most current available data was use. While the time periods for measuring these two factors are not perfectly concurrent, each represents a recent period of 3.5 years.			

Although CLECs and wireless carriers were assigned the vast majority of new NXX codes, the numbering crisis has not been caused by these entities. CLECs have been assigned an excessive quantity of numbers relative to the demand for their service because of: (1) the requirement that numbers be assigned in blocks of 10,000; and (2) the extraordinarily large number of individual rate centers coupled with the necessity that CLECs<sup>22</sup> have an NXX code (or, if thousands-block pooling is available,

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

<sup>22</sup> Wireless carriers do not confront this problem to the same extent as CLECs because wireless carriers typically offer their subscribers extended outward and inward local calling areas. Consequently, a wireless carrier need not have an NXX presence in each community in which it offers service; it only needs to have NXX codes rated in a sufficient number of rate centers such that it can offer wide area local call access for wireline-to-wireless calls.

a portion of an NXX code) assigned to them in each rate center in which they seek to offer service.

#### **IV. Consolidation or elimination of rate centers will prevent the imminent exhaustion of the NANP.**

As the Commission has on several occasions emphasized,<sup>23</sup> state PUCs already possess the authority to pursue number resource optimization measures that involve realignment or consolidation of individual rate centers. The definition of rate centers, rate center boundaries, local (toll-free) calling areas, and the specific local rate treatments afforded local calls, have always been within the purview of the state commissions. Notwithstanding the authority to do so, states (with minor exceptions)<sup>24</sup> have been reluctant to pursue rate center consolidation or other rate center related issues as part of their efforts to address the number exhaust problem.<sup>25</sup>

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<sup>23</sup> *Notice*, 14 FCC Rcd 10373-74, para. 117; *Second Report and Order*, at para. 8.

<sup>24</sup> *Notice*, at note 185.

<sup>25</sup> States should view rate center consolidation as a one-time solution to the area code problem that should be implemented in a single, generic area code conservation docket, rather than as a measure that must be debated as a relief plan for any one area code in particular. It appears that no state has considered rate center consolidation in this manner.

In addition, some state utility commissions have found that they are unable to consider effective number conservation measures such as rate center consolidation because they have insufficient time to implement solutions to number optimization problems before they must implement new area codes. The inefficient and inaccurate forecasts by the NPA Administrator for NXX code demand in certain area codes were at the heart of just such a situation for both the Massachusetts Department of Telecommunications and Energy and the Maryland Public Service Commission.

In Massachusetts, the NPA Code Administrator (which at that time was Bell Atlantic Network Services) informed the Department just two months prior to the full implementation of two new geographic area codes in Eastern Massachusetts (781 and 978) that the two preexisting codes, 508 and 617, were in a state of jeopardy due to unexpectedly high demand for exchange codes. Only two weeks after 781 and 978

The cost of rate center consolidation is low. Solutions that rely upon rate center realignment and consolidation are almost entirely administrative and pecuniary in nature, involving few if any technical or operational modifications to the ILECs' networks. While important, solutions involving any of the various forms of number pooling, which have been the principal focus of the Commission's efforts, involve potentially substantial hardware and software modifications and upgrades to central office switches, network signaling protocols, and the creation of new data bases that must be accessed in real time so that calls can be properly routed to the appropriate carrier. Thus, by advocating rate center consolidation as a solution that states should consider immediately, the Commission would not be promoting an expensive solution that imposes a significant cost burden on the states or the ILECs.

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were fully implemented, they too were placed in jeopardy, and the Department found itself re-examining area code relief issues under a very short timeline. See Petition of Lockheed Martin IMS, the North American Numbering Plan Administrator, for area code relief for the 508, 617, 781 and 978 area codes in Eastern Massachusetts, Order, MA DTE Docket No. 99-11, April 25, 2000, at 4.

In Maryland, the forecast exhaust date for the 443 NPA when it was placed in service (in June 1997) was initially calculated to be 2008. In February 2000, NeuStar, Inc. (the NANPA) revised its exhaust date to the fourth quarter of 2000 due to increased demand for NXX codes. Only two weeks later, NeuStar extended the exhaust date for the 443 NPA by 9 months, due to lower-than-expected demand for NXX codes. Three months later, and only twelve days after filing the NPA Relief Petition with the MD PSC, NeuStar declared the 443 NPA to be in extraordinary jeopardy because demand for NXX codes was considerably higher than had been forecast just three months earlier. These ever-shifting exhaust dates prevented the Maryland Commission from implementing number conservation measures that could have prevented the need for new area codes. See Petition of NeuStar, Inc., North American Numbering Plan Administrator, for Approval of Relief Plans for the 443 and 240 Area Codes, Comments of the Maryland Office of People's Counsel, MD PSC Case No. 8853, November 1, 2000.

**V. Rate Center Consolidation will eliminate an anachronistic structural inefficiency that has little relevance to the modern telecommunications industry and would not survive in a fully competitive market.**

The original purposes for which rate centers were developed are no longer relevant to the modern telecommunications industry. Exchanges and rate centers were first created in the earliest days of the telephone industry. Originally, an exchange referred to the geographic area served by a manual switchboard to which all of the telephone lines within that exchange were connected. An operator would complete local calls by physically plugging the calling party's line into the called party's line using a patch cord. If the call was destined to a customer served by a different switchboard (*i.e.*, in a different exchange), the operator would signal the terminating switchboard and verbally instruct the operator at that location as to which phone line the call was to be connected. Because of their increased complexity, such inter-exchange calls were generally rated as toll and additional charges for the call were applied. For calls to nearby exchanges, direct trunks would interconnect the individual switchboards; however, for longer distances, one or more intermediate switchboards would be involved in interconnecting trunks so as to achieve the desired end-to-end connection. In addition to the various connectivity issues, the actual transport of a call over a considerable distance required the use of expensive wire facilities whose cost tended to vary fairly directly with distance. Distance was thus a major factor in both the complexity and the cost of individual calls, and it was, therefore, appropriate that the pricing of such calls reflected this significant cost component. The use of numerous

and geographically small rate centers, each one of which generally corresponded to the physical network serving an individual exchange, was the administrative device through which distance-based pricing was accomplished.

As the number of telephone lines increased and mechanized switches replaced cord switchboards, the exchange began to take on more administrative properties rather than the physical properties associated with individual switchboards. Multiple central office switches could and did serve the same exchange, and local calling was extended to include nearby exchanges in addition to the subscriber's home exchange.<sup>26</sup> Because calls still needed to be differentiated between local and toll and because toll calls (and some local calls) still needed to be priced on the basis of distance, a system of geographic location Vertical and Horizontal (V-H) coordinates was developed by which each rate center's distance to all other rate centers could be readily determined so that the appropriate rate could be assigned to each individual call.

In addition, other (non-cost-based) reasons justified the distinction between local and toll calls. For more than one hundred years, the prevailing view of telephone service pricing was that rates should be set on the basis of value of service and that toll calls were more valuable than local calls and should thus make a disproportionate

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<sup>26</sup> Prior to the introduction of mechanized billing, all toll calls had to be manually ticketed and posted to a customer's account for billing purposes. This often proved more costly than the call itself, particularly for intra-exchange calls and for calls to nearby exchanges that were connected by a direct trunk, both situations in which relatively large volumes of calls were common. In such cases, the telephone company would voluntarily expand its local calling areas to avoid billing costs and would often increase the local rate to recapture the otherwise foregone toll revenues.

contribution to what were seen as the joint costs of providing telephone service overall.

The largest component of such joint costs was the individual subscriber loop, the pair of wires dedicated to a specific customer and running continuously from the telephone company central office to the customer's premises. Because the same loop was used to provide both local and toll calling, its non-traffic-sensitive costs were apportioned in some manner between local and long distance calls and, although such costs were fixed with respect to the volume of traffic carried over the loop, they were to be recovered in usage-based charges applicable for toll (and some local) calls.

This policy shifted the burden of cost recovery for the subscriber loop from the customer for whose specific benefit the loop had been provided to customers who made the greatest use of the long distance network. As a result, the basic monthly rate for purely local service recovered only a fraction of the cost of the subscriber loop, making it possible for the basic residential access line rate to be relatively inexpensive, with the shortfall being made up through usage-based long distance rates set at levels well in excess of their corresponding usage-sensitive cost.

The purposes for which rate centers or exchanges had been defined are no longer compelling in the current or future telecommunications marketplace. The explosion in telecommunications technology over the past two decades has both reduced the cost of telephone calls to a mere fraction of a cent per minute,<sup>27</sup> and has

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<sup>27</sup> For example, the proxy TELRIC rates for switching adopted by the FCC in its *First Interconnection Order* are well below one cent per minute. See Implementation of the Local Competition Provisions of the

essentially eliminated *distance* as a cost-driver for all telephone calls. Thus, any physical distinction that may have once existed between local and toll calls is effectively obsolete, which in turn eliminates the need for rate centers as a device for calculating the (no-longer-required) distance attribute.

In fact, distance has ceased to be a basis for pricing in all of the sectors of the telecommunications industry that are now or that have become robustly competitive. In the long distance industry, distance has disappeared as a rate element in interstate long distance pricing structures. The price of a 40-mile interstate call from Baltimore to Washington is exactly the same as the price of a 5,000-mile call from Bangor, Maine to Honolulu.

In the wireless industry, carriers have largely eliminated distance as a pricing element. Both Sprint PCS and AT&T Wireless Services have offered standard calling plans that do not distinguish local from long distance calls, nor do such plans otherwise charge on the basis of distance. Competitive pressure from these companies has forced incumbent wireless carriers such as Verizon Wireless and Cellular One to adopt similar distance-insensitive pricing plans. Finally, Internet service businesses have eliminated both distance and usage as pricing elements.

The Commission's access charge policies, as adopted in CC Docket 78-72<sup>28</sup> and more recently as reiterated in the *Telecommunications Act of 1996* and the Commission's 1997 *Access Reform* order, attempt to better align access service rates with underlying costs and to replace implicit subsidies with explicit subsidies.<sup>29</sup> The recovery of fixed (non-traffic-sensitive) costs associated with the subscriber loop from usage-based toll rates is an example of this type of implicit subsidy. Even before the enactment of the 1996 legislation, the Commission had embarked upon a policy of shifting recovery of non-traffic-sensitive costs away from usage-based charges in favor of fixed monthly fees imposed upon the end user.<sup>30</sup> By its adoption of the CALLS settlement,<sup>31</sup> the Commission will have all but eliminated most non-traffic-sensitive costs from interstate switched access charges and, through the operation of marketplace forces in the intensely competitive long distance market, will have eliminated these non-traffic-sensitive costs from end user toll rates as well.

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<sup>28</sup> MTS and WATS Market Structure, CC Docket No. 78-72, Third Report and Order (Phase I) 93 FCC 2d 241 (1983).

<sup>29</sup> Access Charge Reform, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd 15982 (1997).

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

<sup>31</sup> Access Charge Reform, CC Docket No. 96-262, Sixth Report and Order; Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, Sixth Report and Order; Low-Volume Long-Distance Users, CC Docket No. 99-249, Report and Order; and Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Eleventh Report and Order, 15 FCC Rcd 12962 (2000), ("*Calls Order*"), *appeal pending sub nom.*, *Texas Office of Pub. Util. Counsel v. Federal Communications Commission*, No. 00-6043 (5<sup>th</sup> Cir.).

In fact, the only segment of the telecommunications industry where distance-based pricing (in the form of local/toll distinctions and/or mileage-based rates) persists is in the largely noncompetitive local telecommunications sector. Indeed, the fact that this pricing remnant of a monopoly era persists in the case of local telephone services serves to confirm the lack of effective competition in this sector. If the same level of competition existed in the local and intraLATA toll markets as currently exists in the interstate toll market, undoubtedly the distinction between local and toll calling and distance based pricing would have been eliminated. Rate centers could not survive were local markets effectively competitive.

Although no economic or public policy consideration justifies perpetuation of the rate center construct, conservation of the Nation's numbering resources should compel prompt elimination of the current rate center construct. The enormous number of geographically small rating areas is the single most important factor contributing to the exhaust of NXX codes within most NPAs and the eventual exhaust of NPAs within the existing ten-digit North American Numbering Plan. Elimination of rate centers will not just delay NANP exhaust; it probably will eliminate the problem altogether. If it acts quickly, the Commission can solve the nation's numbering crisis by affirmatively and decisively encouraging states to use their existing authority to restructure and, ultimately, eliminate rate centers as we know them today.<sup>32</sup>

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<sup>32</sup> The *Second Further Notice of Proposed Rulemaking* accompanying the *Second Report and Order* suggests, as an alternative to rate center consolidation, that the rating and routing functions of telephone

State regulatory authorities and ILECs may, however, oppose rate center consolidation.<sup>33</sup> Were rate centers to be eliminated entirely, for example, intraLATA toll service (and associated switched access service where intraLATA toll is furnished by an IXC) would effectively disappear, and the associated revenues would either have to be foregone or replaced. Revenue-neutral rate restructuring to replace foregone intraLATA toll and access revenues would generally require an increase in monthly rates for basic exchange service.<sup>34</sup> Consumers would get a significantly expanded local calling area in exchange for the somewhat higher rates, but for those consumers who make little or no use of intraLATA toll, the result probably would be an overall increase in their monthly phone bills.<sup>35</sup>

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numbers be separated, in effect severing the relationship between NXX codes and specific rate centers. *Second Further Notice* at para. 48. Unlike rate center consolidation/elimination, which requires primarily administrative adjustments and in some cases rate realignment, the use of AIN signaling, data base "dips," or other devices to extract rating information from the dialed telephone number would involve substantial technical and technological enhancements to the existing public switched network and, even if quickly adopted by the Commission as a number resource optimization measure, would undoubtedly require many years to implement nationwide. Rate center consolidation/elimination is a less costly solution that could be implemented more rapidly.

<sup>33</sup> For example, when two rate center consolidation plans for Eastern Massachusetts were raised before the Department of Telecommunications and Energy by the Attorney General, Bell Atlantic-Massachusetts claimed that, should a plan for rate center consolidation be approved, loss of intraLATA toll revenue resulting from the attendant increase in size of local calling areas could be made up by increasing end users' monthly rate for local service. See *Area Code Conservation, Direct Testimony of John Nestor III*, MA D.T.E. 98-38, March 19, 1999, at 12-13.

<sup>34</sup> If existing rates are producing sufficiently high levels of earnings so that rate center consolidation/elimination could be implemented without the need to increase monthly local service rates, *i.e.*, without reducing earnings to a point where they would become confiscatory, revenue-neutral rate realignment would not necessarily be required in all cases. See, *e.g.*, *Duquesne Light Co. et al v. Barasch et al.*, 488 U.S. 299, 307-09 (1989).

<sup>35</sup> Those same arguments, of course, have been made with respect to the introduction by the Commission of the Subscriber Line Charge (SLC), the device adopted by the Commission as part of its

Ad Hoc understands the reluctance of state regulators to pursue policies that might raise local phone rates. Nevertheless, failure to take aggressive number resource optimization measures immediately will subject the entire U.S. economy to significantly greater costs in the future. Ad Hoc estimates that the total elimination of rate centers and intraLATA toll nationwide would eliminate some \$2.7 billion in annual intraLATA toll revenues.<sup>36</sup> The impact of this policy on local rates will vary widely from state to state due to variation in the nature of local calling areas and the proportion of total ILEC revenues that are derived from intraLATA toll.

The existing \$2.7 billion in annual ILEC intraLATA toll revenues represents an upper limit on the extent to which local rates would need to increase were all rate centers eliminated. Offsetting these foregone intraLATA toll revenues would yield savings in administrative and billing costs and improved overall network utilization. Moreover, to the extent that some ILECs are currently earning far in excess of a fair return on their investment, elimination of some or even all intraLATA toll revenue might not require *any* offsetting increase in local rates. Despite the fact that rate center consolidation would in some instances cause changes in local rate structures and rate levels, the impact of these changes on the public will be small compared to the dead

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access charge rules in order to shift recovery of non-traffic-sensitive costs away from usage-based charges and toward fixed end-user monthly rates.

<sup>36</sup> Economics and Technology, Inc., *Where Have All the Numbers Gone? Rescuing the North American Numbering Plan from Mismanagement and Premature Exhaust (second edition)*, June 2000, at 33.

weight loss imposed on the economy, and on all consumers, if regulatory authorities do not confront the effect that the current rate center construct for exhaustion of the current NANP. It would be an egregious squandering of the nation's economic resources if preservation of an anachronistic monopoly-era pricing system forced the expansion of the NANP. As a guardian of the public interest, the Commission has an obligation to assure that matters within its jurisdiction do not produce such waste.

**VI. The Commission should strictly limit area code availability to encourage States to consolidate rate centers and should require States to meet utilization thresholds for NPA codes before allowing the NANPA to allocate additional NPAs to the States.**

Given the seriousness of the number exhaustion problem to the national economy and telecommunications industry and the importance of implementing rate center consolidation as part of any solution, the Commission should adopt concrete measures that will compel states to implement rate center consolidation. The Commission should do more than just encourage states to consolidate rate centers and can do so without interfering with the states' authority to set intrastate rates. The Commission's plenary jurisdiction over the NANP surely gives it the authority to adopt such measures.<sup>37</sup>

Under existing number assignment guidelines and practices, the NANPA will assign an additional area code whenever it can be shown that the number of

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<sup>37</sup> 47 U.S.C. § 251(e)

uncommitted NXX codes within the existing area code is insufficient to satisfy current and near-term projected demand.<sup>38</sup> The NANPA limits its concern to assuring the availability of NXX codes. The decision to award additional area codes to a jurisdiction is made without regard to the quantity of individual telephone numbers actually in use within each of the NXX code and, importantly, over the entire area code in general. Consider the case of the 443 area code in Maryland that was introduced in 1997 as an all-services overlay of the 410 NPA. In February 2000, the NANPA notified the industry that the 443 area code was approaching exhaust, and in April 2000 the NANPA petitioned the Maryland PSC to authorize a second overlay of the same 410 area. Table 3 profiles the distribution of NXX codes among the various types of carriers within the original 410 area code and the overlay 443 code.

	<b>410 NXXs in 1998</b>	<b>443 NXXs in 1998</b>	<b>410 NXXs in 2000</b>	<b>443 NXXs in 2000</b>	<b>Total Numbers Held in 2000</b>
Verizon-MD	547	3	546	33	5,790,000
CLECs	69	24	67	323	3,900,000
Wireless	108	0	142	98	2,400,000
Source: January 1998 and March 2000, <i>Local Exchange Routing Guide</i> .					

As is readily apparent, most ILEC NXXs are assigned to 410,<sup>39</sup> whereas 443 is principally populated by CLECs and by wireless carriers.<sup>40</sup> Since the utilization of

<sup>38</sup> ATIS, INC 95-0407-008, Central Office Code (NXX) Assignment Guidelines, (Reissued March 3, 2000), Section 4.2.

<sup>39</sup> 94% of Verizon-Maryland's NXX codes are in the 410 NPA.

individual NXX codes by CLECs (the percentage of the numbers assigned to them that have actually been placed in service for an end-user) is known to be far lower than for ILECs,<sup>41</sup> it is more than likely that the utilization of 410 by end users is far greater than that for 443. That condition was, however, not considered by NANPA when it filed its petition with the Maryland PSC for implementation of a third area code.

Once most or all of the NXX codes within a given area code have been assigned, the jurisdiction will be granted an additional area code as a matter of right; there is no requirement or prerequisite associated with the assignment such as, for example, a showing that the state has begun to implement number conservation/optimization measures. Thus, if the average utilization of all NXX codes within an area code is, say, 10% but all of those NXX codes are spoken for, the NANP Administrator will nevertheless assign an additional area code based solely upon NXX assignments. Furthermore, there are no current limits to the aggregate quantity of area codes that will be assigned in any state; as long as NXX codes continue to be assigned

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<sup>40</sup> 93% of the NXX codes in the 443 NPA have been assigned to CLECs and wireless carriers. The Commission's attempts to effect parity among carriers with respect to NPA assignments, as evidenced by the Commission's persistent refusal to consider service-specific or technology-specific overlay NPAs, is clearly frustrated by this pattern of NXX assignment. Despite the establishment of "all services" overlays, most ILEC NXXs remain in the "old" area code, while most CLEC NXXs are placed in the "new" area code.

<sup>41</sup> A recent FCC report indicates CLEC number utilization to be approximately 9.8%, as compared with ILEC utilization of 53.2%. FCC, CCB, Industry Analysis Division, Numbering Resource Utilization in the United States (visited February 12, 2001), <[http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/number.html](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/number.html)>, at Table 1 (December, 2000) ("*Number Utilization Report*"). Table 4 of this same report concluded that 70% of NXXs assigned to CLECs are less than 3% utilized, and as many as 60% of these NXXs are less than 1% utilized.

and existing area codes continue to exhaust their supply of NXX codes, NANPA will issue new area codes without any further showing of actual end-user occupancy.<sup>42</sup>

The *de facto* policy of issuing area codes without examining the utilization of numbers within the NPA is seriously flawed. By providing NPAs effectively on demand, state commissions have deferred, delayed or otherwise avoided dealing with effective number conservation measures.

In the Eastern Massachusetts LATA, for example, splits of the 617 and 508 NPAs became permanent as of May 1, 1998, and two new area codes (781 and 978) were established.<sup>43</sup> Less than two weeks later, Bell Atlantic Network Services, then acting as NPA Code Administrator, announced that the 781 and 978 NPAs that had just been cut into service were in jeopardy and would shortly reach exhaust,<sup>44</sup> and that *four* new codes would be needed as early as 2000 or 2001. In June 1998, the Massachusetts Attorney General submitted proposals for rate center consolidation and elimination to eliminate the need for four additional area codes. In February 1999, the Massachusetts Department of Telecommunications and Energy refocused its energies

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<sup>42</sup> In its *Second Report and Order*, the Commission established strict utilization requirements for individual NXX codes before a carrier could be assigned an additional code in the same rate center. *Second Report and Order*, at paras. 18-33. The Commission has set no analogous utilization requirements for area codes themselves.

<sup>43</sup> Investigation by the Department of Public Utilities on its Own Motion to Adopt a Plan for Addressing the Limited Number of Exchange Codes Remaining in Eastern Massachusetts' 617 and 508 Area Codes, Order, MA D.P.U. Docket No. 96-61, January 23, 1997.

<sup>44</sup> Petition of Lockheed Martin IMS, the North American Numbering Plan Administrator, for area code relief for the 508, 617, 781 and 978 area codes in Eastern Massachusetts, Order, MA D.T.E. Docket No. 99-11, April 25, 2000, at 4.

on the concept of rate center consolidation within the open proceeding but, following a succession of delays, in April of 2000 disbanded its rate center consolidation efforts and adopted overlays of all four Eastern Massachusetts NPAs using four new area codes that NANPA had assigned to the state.<sup>45</sup> The Department subsequently began an investigation into implementing an overlay of the 413 NPA in Western Massachusetts.<sup>46</sup> The state will soon have as many as ten (10) area codes with a combined capacity of 77 million telephone numbers, to serve a population of about 6 million. Even before the assignment of the five overlay codes to Massachusetts, the state had a number capacity in its five existing area codes of some 38.5 million numbers, only 6 million of which were actually in use.<sup>47</sup> With an overall utilization level of only 16.2% in the five preexisting area codes, Massachusetts (and the numerous

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<sup>45</sup> *Id.*, at 30. The D.T.E. indicated that neither of the two plans for rate center consolidation proposed by the Attorney General could be implemented in time to forestall the need for new codes. *Id.*, at 18-19.

<sup>46</sup> In a June 20, 2000 meeting, NeuStar and industry participants agreed to implement a new all-services overlay code in the 413 NPA region. On August 1, 2000, NeuStar, Inc. submitted a petition for area code relief in the 413 region to the Massachusetts D.T.E., and on September 7, 2000, the MA D.T.E. opened a proceeding in Docket 00-64 to examine NeuStar's proposal. Even though NeuStar has not yet declared the 413 NPA to be in a state of jeopardy (due in part to code reclamation activities), certain industry participants have nonetheless urged the D.T.E. to move forward with the assignment of the new overlay area code, irrespective of the fact that there is *not yet* a demonstrated need for a new NPA in that region. See *413 Area Code Relief*, MA D.T.E. Docket No. 00-64, Comments of AT&T Corp., October 27, 2000, at 1, Comments of Global NAPS, October 27, 2000, at 1, Comments of SNET, October 27, 2000, at 5; Comments of SNET, November 15, 2000, at 1, Comments of Verizon Wireless, October 27, 2000, at 2, and Comments of WorldCom, November 15, 2000; at 1.

<sup>47</sup> Incumbent LECs serve 4,313,988 lines in Massachusetts, while CLECs serve 384,548 lines. *Trends in Telephone Service*, Table 9.5. According to the March 2000 *Local Exchange Routing Guide*, 365 NXX codes in the 617/508/781/978/413 NPAs were assigned to wireless carriers. Applying the combined cellular/paging utilization rate of 42.1% (See *Number Utilization Report*, at Table 1) provides an estimate of 1,536,650 wireless subscribers in Massachusetts. Total lines/subscribers is 4,313,988 + 384,548 + 1,536,650 = 6,235,186.

other similarly situated jurisdictions) should never have been permitted to lock up yet another five NPAs, which were and remain a precious numbering commodity. As in Massachusetts, states across the country can avoid pursuing effective number conservation policies by simply requesting—and getting—additional NPAs. Until this policy is changed, states will not give serious attention to other options or make difficult choices.

In its *Second Report and Order*, the Commission has undertaken to limit the availability of NXX codes to individual carriers by imposing strict utilization requirements on those carriers' ability to obtain additional codes within the same rate center.<sup>48</sup> The NANP will, however, need to be expanded prematurely unless there is a major reduction in the number of rate centers nationwide. CLECs demand most of the NXX codes, and most CLECs do not satisfy or come close to satisfying the existing utilization requirements for those codes. In addition to establishing utilization requirements for NXX codes (which will have a negligible effect on number exhaustion), the Commission should also establish utilization requirements for entire area codes as well.

Rather than mandate states to eliminate rate centers, the Commission should immediately require that a utilization threshold be met by all carriers, taken as a whole, within an existing area code prior to allocating any additional area code for number

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<sup>48</sup> *Second Report and Order*, at paras. 18-33.

exhaustion relief. Setting an industry-wide utilization requirement within an NPA will focus number conservation efforts on improving carrier utilization of numbers and, in most areas, will require state public utility commissions to move forward with the consolidation and elimination of rate centers in an effort to do so. Eliminating rate centers will decrease the demand for additional area codes, because (a) the quantity of numbers demanded by carriers will decrease dramatically;<sup>49</sup> (b) the utilization rate of numbers will increase dramatically; and (c) today's excessive quantity of stranded, unusable numbers will decline sharply. Numbers reclaimed from local service carriers that no longer need numerous blocks of numbers simply to establish a service "footprint" will provide the geographic region with thousands (perhaps even millions) of additional telephone numbers available for assignment to carriers who demonstrate need. Consequently, the demand for additional area codes will be abated.

As a starting point, the Commission should set the utilization level of numbers by all carriers within an NPA at 44%. The utilization level should increase to 60% over a three-year period. The initial utilization level is consistent with today's overall quantity of "assigned numbers" (those numbers assigned by carriers to end users) divided by "total reported numbers" (the quantity of numbers assigned by NANPA to carriers) as

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<sup>49</sup> With fewer rate centers, fewer unique blocks of numbers are required by a carrier to provide service over a given area.

calculated by the FCC.<sup>50</sup> The 60% utilization level is also consistent with the FCC's newly imposed 60% utilization threshold for growth NXX codes within rate centers.<sup>51</sup>

Setting the initial rate at the current national average utilization rate of numbers by all carriers is a fair and appropriate policy: NPAs that attain higher-than-average industry-wide utilization rates receive new area codes as necessary, while states with NPAs exhibiting below-average utilization rates will have incentives to implement policies to improve utilization levels before new NPAs are allocated to them. Increasing the utilization threshold for new NPAs by 5% per year to a level of 60% also will provide state commissions and carriers with the incentive to improve number utilization over time.<sup>52</sup>

The Commission should use the authority given it by the Telecommunications Act of 1996 over the NANP and to promote competition in all sectors of the telecommunications market to adopt an NPA-utilization threshold as a national policy. State public utility commissions then will have the necessary incentives to eliminate rate centers, which is the only clear number resource optimization measure that offers a solution to the nation's numbering crisis. The freshly-minted policy of imposing specific utilization levels on carriers in order to obtain growth NXX codes in any given

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<sup>50</sup> *Number Utilization Report*, Table 1, at 10.

<sup>51</sup> *Second Report and Order*, at para. 22.

<sup>52</sup> *Id.*, at para. 26.

rate center, as set forth in the Commission's *Second Report and Order*, will be largely ineffective as long as the number of individual rate centers remains as large as it presently is. Significantly, nothing in the *Second Report and Order* or, for that matter, in any existing numbering rule or practice, applies a similar end user number utilization standard to the entire area code. Without such a policy mechanism, the ultimate goal of preventing exhaust of the ten-digit NANP will not be realized, and the nation will be forced to suffer the enormous waste with the expansion of the NANP to eleven or twelve digits.

**VII. By limiting area code allocation to those states that implement rate center consolidation the Commission will fulfill its number resource optimization policy objectives.**

The Commission has repeatedly stated its policy position with respect to the implementation of numbering optimization measures.<sup>53</sup> As proposed by Ad Hoc in this Petition, a rulemaking to implement utilization thresholds for numbers within an NPA that must be met in order to obtain additional area codes will provide state public utility commissions with the appropriate incentives to move forward with rate center elimination. This result is consistent with each of the FCC's policy goals:

(1) The elimination of rate centers will meet the goal of minimiz[ing] the negative impact on consumers of premature area code exhausts, as future need for area code assignments will most likely be eliminated altogether, particularly in those

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<sup>53</sup> The FCC's policy positions are set forth in both the *Notice*, 14 FCC Rcd 10326, para. 6; and the *First Report and Order*, 15 FCC Rcd 7578, para. 3.

areas where numbering resources are plentiful due to the fact that additional area codes have already been implemented;

(2) The elimination of rate centers will ensure sufficient access to numbering resources for all service providers to enter into or to compete in telecommunications markets, as literally hundreds of NXX codes in virtually every area code currently in existence will be freed up;

(3) As discussed at length above, rate center elimination is likely to avoid exhaust of the NANP and the need to expand the NANP to eleven or twelve-digit dialing;

(4) When faced with NANP expansion costs of \$50 to \$150 billion, rate center elimination and its ability to prevent NANP expansion will impose the least societal cost possible and obtain the highest benefit;

(5) Although certain toll revenue opportunities may be lost,<sup>54</sup> rate center elimination on the whole ensures [both] competitive neutrality and that no class of carrier or consumer is unduly favored or disfavored by the optimization efforts, as all

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<sup>54</sup> Particularly to the incumbent LEC, which is often chosen as the pre-subscribed interexchange carrier for intraLATA toll service.

carriers will face the same rate center construct<sup>55</sup> and opportunities for what could potentially be a larger market for usage-based revenue;<sup>56</sup>

(6) Rate center consolidation will not only minimize the incentives for carriers to build and carry excessively large inventories of numbers, it will remove these incentives altogether due to (a) the abundance of numbers that will become available in every NPA; and (b) the need to utilize numbers efficiently in the unlikely case that additional numbering resources (*i.e.*, a new NPA) are needed.

The FCC should embrace the idea of imposing federal limitations on the availability of new area codes and recognize the benefits attendant thereto, most notably the elimination of NANP exhaust and expansion.

## CONCLUSION

Improving the utilization of numbers by carriers is a necessary step in curtailing the need for additional area codes from a rapidly diminishing supply. The Commission's recent efforts at implementing numbering resource optimization measures will only postpone, for a relatively short period of time, the need to expand the NANP at great cost to the national economy and the end-user community. Any

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<sup>55</sup> In fact, rate center elimination should be considered to be a pro-competitive measure, as more telephone numbers in the original well-established and well-known area codes are likely to become available to competitive LECs.

<sup>56</sup> If, for example, rate centers were eliminated altogether in a certain LATA, *all* carriers could compete for *all* intraLATA usage, not simply intraLATA toll calling, as is the case today.

further delay in adopting and implementing a solution to NANP exhaustion decreases the effectiveness of such measures and will ultimately force the adoption of primitive and expensive solutions such as mandatory eleven and twelve-digit dialing within the NANP. By implementing a utilization threshold for NXX codes on an NPA-wide basis now, the Commission will greatly facilitate the consolidation of rate centers across the country that, in turn, will prevent exhaustion from occurring.

If the Commission waits to address the rate center consolidation issue in the current rulemaking in CC Docket 99-200, the opportunity to avoid the unnecessary and avoidable imposition of significant costs on the national economy will be lost. Accordingly and for the reasons set forth herein, Ad Hoc respectfully requests the Commission to adopt, on an expedited basis, a Notice of Proposed Rulemaking that focuses specifically on the issue of rate center consolidation.

Respectfully submitted,

AD HOC TELECOMMUNICATIONS USERS  
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## CERTIFICATE OF SERVICE

I, Kristin Gosselin, hereby certify that a true and correct copy of the preceding Comments of the Ad Hoc Telecommunication Users Committee was served this February 12, 2001 via hand delivery and the Electronic Comment Filing System upon the following parties:

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Kristin Gosselin  
Legal Assistant

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