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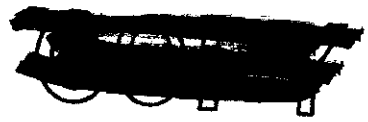

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Numbering Resource Optimization	)	CC Docket No. 99-200
	)	
Connecticut Department of Public Utility Control Petition for Rulemaking to Amend the Commission's Rule Prohibiting Technology-Specific or Service-Specific Area Code Overlays	)	RM No. 9258
	)	
Massachusetts Department of Telecommunications and Energy Petition for Waiver to Implement a Technology-Specific Overlay in the 508, 617, 781, and 978 Area Codes	)	NSD File No. L-99-17
	)	
California Public Utilities Commission and the People of the State of California Petition for Waiver to Implement a Technology-Specific or Service-Specific Area Code	)	NSD File No. L-99-36

BELLSOUTH COMMENTS

BELLSOUTH CORPORATION

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Date: July 30, 1999

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SUMMARY

There is sufficient time remaining in the life of the North American Numbering Plan for this Commission to assert a leadership role in developing uniform national number optimization strategies that attack the drivers of number exhaust in the manner envisioned by the Commission. This Commission, the state commissions, and industry each have a role to play in implementing these strategies. To assure uniformity, the Commission must allow the industry to continue to set optimization solution standards and to revise administrative measures, such as allocation guidelines. State commissions must use the tools at hand to maximize resource optimization, chiefly rate center consolidation and, where appropriate, the use of all-services overlays in accordance with the Commission's rules as the area code relief method of choice. The Commission must encourage all interested parties to rethink the use of telephone numbers in the 21st century, and to question the viability of expectations and customs arising in the era prior to competition.

The industry should continue to maintain and update number allocation guidelines. Although the Commission should resist codification of these guidelines, all carriers must adhere to the guidelines and be prepared to comply with immediate, administrative remedial sanctions in the event of material noncompliance. The NANP Administrator should be able to provide more accurate utilization forecasts using tools at hand, but if these are deemed insufficient by the Commission, then the work of the North American Numbering Council Numbering Resource Optimization Committee on COCUS replacement should be adopted.

The Commission should work with state commissions to establish a transition plan to mandatory ten-digit dialing in order to free up as much of the NANP resource as possible. The Commission should not open up the "D" digit at this time. The FCC should encourage state

commission's to adopt NPA overlays pursuant to current Commission rules as the preferred method of area code relief, and encourage states to thoroughly examine rate center consolidation.

A uniform national approach to number pooling is necessary to achieve number optimization. Only LNP-capable carriers should be required to participate in number pooling, and number pooling should only be implemented, where appropriate, in a phased manner. It should only be implemented in jurisdictions where rate center consolidation has already been thoroughly considered by the relevant state commission. Incumbent price-cap local exchange carriers should be allowed to recover appropriate costs of establishing number pooling through the local number portability end user line charge.

An industry model of number optimization can, with FCC leadership and state partnership, result in numbering optimization without resort economic controls on the numbering resource or over-reliance on utilization quotas.

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BELLSOUTH COMMENTS

BellSouth Corporation, by counsel and on behalf of its affiliated companies,[1] comments in support of the Commission's efforts to determine how best to create national standards for telephone numbering resource optimization.[2]

INTRODUCTION

Numbering resources, in the context of this proceeding, are simply telephone numbers. Telephone numbers are used to route telephone calls and convey other information in the public

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[1] BellSouth Corporation (BSC) is a publicly traded Georgia corporation that holds the stock of companies which offer local telephone service, provide advertising and publishing services, market and maintain stand-alone and fully integrated communications systems, and provide mobile communications and other network services world-wide.

[2] In the Matter of Numbering Resource Optimization, Notice of Proposed Rulemaking, CC Docket No. 99-200 (released June 2, 1999) ("NRO NPRM") at ¶ 6.

switched telephone network (PSTN).[3] For most of the first four decades of the North American Numbering Plan (NANP), only one entity offered only one type of service to end user customers.[4] Although the adoption of a nationwide numbering scheme in 1947 based on a ten-digit telephone number meant that telephone numbers became a finite resource fixed by the laws of mathematics, the supply of telephone numbers generally exceeded customer demand in the pre-divestiture environment. As a result, the introduction of a new area code was a relatively rare occurrence.[5] The last half of this decade, however, has seen the introduction of over a hundred new area codes, with approximately two dozen area codes being introduced every year.[6]

The Commission has identified four "numbering exhaust drivers" that contribute to the current strain on the supply of telephone numbers: (1) the allocation of numbers in blocks of 10,000 (NXX codes); (2) multiple rate centers, and the demand by most carriers to have at least one NXX code per rate center; (3) the increased demand for numbering resources and new technologies; and (4) the absence of regulatory, industry or economic control over requests for numbering resources.[7] The Commission seeks to address, or "attack" each of these "drivers" by "creating a uniform national strategy for numbering resource optimization"[8] using one or more administrative measures and numbering optimization solutions.

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3 NRO NPRM at ¶ 2.

4 *Id.*

5 Kathy Chen, *FCC Proposing Phone-Number Changes to Prevent a Shortage of Area Codes*, Wall St. J., May 27, 1999, at B10.

6 *Id.*

7 *Id.* at ¶ 15.

8 *Id.* at ¶ 26.

The Commission seeks comment on the respective roles of it and the 50 state public service commissions in creating a uniform national number optimization strategy.[9] According to the Commission, a uniform national strategy should (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 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 the Commission's optimization efforts; and (6) minimize the incentives for carriers to build and carry excessively large inventories of numbers (BellSouth hereinafter refers to these criteria as "the NRO criteria").[10]

I. A UNIFORM NATIONAL STRATEGY FOR NUMBER OPTIMIZATION REQUIRES FCC LEADERSHIP, STATE PARTNERSHIP, AND INDUSTRY CONSENSUS.

There is sufficient time remaining in the life of the NANP to allow a variety of industry-developed administrative measures and numbering optimization solutions to be deployed to effectively address the four drivers of numbering exhaust in accordance with the NRO criteria. These measures and solutions will obviate the need to develop and maintain controversial and complicated utilization quotas, and their attendant burdens on carriers, regulators and administrators, but will rather assure the most efficient utilization of telephone numbers by

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9 *Id.* at ¶¶ 16, 19, 63, 93, 100, and 120.

10 *Id.* at ¶ 6.

carriers.[11] The Commission, the fifty state commissions and the industry each have a critical role to play in this regard: the FCC must assume a leadership role in NANP resource optimization; state commissions must fully utilize the tools already available to them in order to maximize resource optimization, and the industry must continue to work cooperatively to establish, through consensus, meaningful administrative measures and workable optimization solutions that comport with the NRO criteria.

A. The FCC Must Take A Leadership Role With Respect To Developing National Number Optimization Policies.

Pending petitions for authority to implement administrative measures and numbering optimization solutions demonstrate the need for this Commission to reaffirm its leadership role with respect to national telephone number conservation.[12] The Commission undertook such a role with respect to number portability.[13] By adopting uniform national rules regarding number portability implementation and deployment, and by preventing number portability from developing on a state-by-state basis, the commission prudently sought to ensure the efficient and consistent use of both number portability methods and numbering resources on a nationwide basis as well as carrier network interoperability.[14]

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[11] BellSouth believes that increased industry controls over requests for numbering resources will obviate the need for economic controls. Pricing options for telephone numbers are potentially anti-competitive in that larger service providers may be able to pay more numbering resources that smaller service providers. This could eventually impact end users in negative ways, and could result in number hoarding.

[12] *Common Carrier Bureau Seeks Comment on State Utility Commission Requests for Additional Authority to Implement Telecommunications Numbering Conservation Measures*, NSD File Nos. L-98-136, L-99-19, L-99-21, L-99-27, L-99-33, Public Notice, DA 99-1198 (released June 22, 1999); *Common Carrier Bureau Seeks Comment on the Texas Public Utility Commission Petition for Delegation of Additional Authority to Implement Number Conservation Measures*, NSD File No. L-99-55, DA 99-1380 (released July 14, 1999).

[13] *Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8371 (1996).

[14] *Id.*

In last year's seminal Pennsylvania *Order*, the Commission articulated the rationale supporting a similar leadership role with respect to number optimization:

> The Commission, the state commissions, and the industry should work together to bring about as quickly as possible national methods to conserve and promote efficient use of numbers that do not undermine that uniform system of numbering. Such attempts, however, cannot be made on a piecemeal basis without jeopardizing telecommunications services throughout the country. Substantial social and economic costs would result if the uniformity of the North American Numbering Plan were compromised by states imposing varying and inconsistent regimes for number conservation and area code relief. Such inconsistency could interfere with, or even prevent the routing of calls in the United States. The lack of uniformity also could hamper the industry's efforts to forecast and plan properly for exhaust of the North American Numbering Plan, and therefore ultimately could accelerate unnecessarily the introduction of a new nationwide numbering plan. Introduction of a new plan would mean costly network upgrades to accommodate a new dialing scheme that would be confusing to consumers.[15]
>
> * * *
>
> If each state commission were to implement its own NXX code administration measures without any national uniformity or standards, it would hamper the NANPA's efforts to carry out its duties as the centralized NXX code administrator. In that event, the NANPA would have the potentially impossible task of performing its NXX code administration and area code relief planning functions in a manner that is consistent with both Commission rules and industry guidelines, as well as fifty-one different regimes for overall NXX code administration. Further, a lack of consistency in NXX code administration could interfere with forecasting and projections for exhaust of the North American Numbering Plan and could force implementation of a new plan earlier than would otherwise be necessary to ensure that numbers are always available for telecommunications service providers.[16]
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> * * *

The Commission should reaffirm these principles in this proceeding, and assert its leadership role in number optimization. The Commission should fulfill its congressionally-mandated leadership role in NANP administration by continuing to encourage the industry, state

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15 *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*, Memorandum Opinion and Order and Order on Reconsideration, 13 FCC Rcd 19009, 19023-24 (1998) (*Pennsylvania Order*).

16 *Id.* at 19031-32.

commissions and consumers to re-examine the way telephone numbers are used today in a multi-carrier, multi-service, interchangeable NPA environment. In exercising decisive national leadership, this Commission should use its authority to require industry adherence to meaningful, industry-developed telephone number allocation guidelines. The Commission should also encourage states to use the number optimization solutions already available them to help conserve the telephone number resource. The Commission should only grant additional authority to state commissions to adopt administrative measures and optimization solutions where such grants will not thwart the development of a uniform national approach to number optimization.

B. States Must Partner With The FCC By Utilizing, Where Appropriate, All Currently Available Numbering Optimization Solutions.

State regulatory commissions are granted the authority to resolve all matters pertaining to the introduction of new area codes within their states, including the selection of a particular form of area code relief.[17] As the Commission notes, state commissions inevitably bear the brunt of consumer dissatisfaction with whatever method of area code relief is chosen.[18] In direct response to such consumer dissatisfaction, a number of state commissions have petitioned the Commission for additional delegated authority to implement a wide variety of number optimization methods.[19] States already have the inherent authority to address one of the prime number exhaust drivers, multiple rate centers, through rate center consolidation. State commissions have a further opportunity, when choosing an area code relief plan, to implement numbering resource optimizing overlay solutions in accordance with this Commission's rules.

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17 47 C.F.R. § 52.19(a).

18 NRO NPRM at ¶ 24.

19 *See supra* note 12.

Because state commissions are focused on minimizing the impact of new area codes on consumers, they may not always select an NPA relief plan that is the most efficient use of the NANP. State commissions may be tempted to institute administrative measures or numbering optimization solutions as a stopgap measure in order to avoid making a decision on area code relief that will have perceived negative impacts on consumers. In the federal and state partnership needed to assure maximum resource optimization, the Commission should grant state requests for additional delegated authority only when a state commission can demonstrate that it has implemented administrative measures and optimization solutions in accordance with all six NRO criteria. This approach will assure the uniformity and consistency sought by the Commission and avoid the problem of piecemeal inefficiency identified in the *Pennsylvania Order*.[20] A state should not be delegated authority to order number pooling until finalization of national industry standards for thousands block pooling and a national framework for phased implementation, and the state has thoroughly examined rate center consolidation.

C. The Industry Model For NANP Administration Should Be Retained For Number Optimization.

In an earlier proceeding, the Commission found it to be in the public interest to reject regulatory and hybrid-regulatory models for NANP administration in favor of an industry model. The cornerstone of NANP administration, including NANP resource optimization, must be the work on number optimization that has already been completed and that is well under way within the industry.[21] The Commission should adhere to an industry model for number resource

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[20] *Pennsylvania Order*, 13 FCC Rcd 19009, 19023 (1998).

[21] *Administration of the North American Numbering Plan*, Report and Order, 11 FCC Rcd 2588, 2601 (1995) (*NANP Order*).

optimization, and continue to allow the telecommunications industry to develop the working standards and assumptions for number optimization.

Throughout the NRO NPRM, the Commission requests comments on many issues that either have already been decided through industry forums and North American Numbering Council (NANC) working groups, or have been commented on in previous FCC proceedings. In general, except where specifically noted in these comments or in future reply comments, BellSouth supports the work adopted by the industry. The FCC does not need to revisit or undo these fundamental industry decisions. Key number resource optimization issues have been debated and discussed for the past two and half years within the industry. Many hours of analysis and evaluation involving many participants went into these decisions. BellSouth does not completely agree with the following decisions taken by the industry but supports them because they were made in the context of industry wide consensus building:

(a) The work done by the Industry Numbering Committee (INC) on the thousands block number pooling assignment guidelines relating to the functioning of the Pooling Administrator and the pooling architecture in which a Pooling Administrator functions essentially as another carrier when requesting number resources from the NANP.[22]

(b) The NANC and INC proposals on the level of contamination for blocks that can be donated to the industry pool. The Industry debated and analyzed this issue extensively and agreed to a 10% contamination level.[23]

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[22] Industry Numbering Committee Thousand Block (NXX-X) Pooling Administration Guidelines, issued Jan. 27, 1999 at § 5.0.

[23] BellSouth believes that 0% contamination would be ideal, especially for the initial phases of number pooling. However, for the sake of forward progress, BellSouth supports the industry recommendation of 10% contamination and opposes reopening the issue.

(c) The NANC Report, in general, including the estimated time needed for the industry to implement ITN pooling from the date of a regulatory order mandating its implementation.[24]

(d) The NANC Wireless Number Portability Subcommittee (WNPSC) Wireless Pooling Evaluation dated July 20, 1999. This report concluded that requiring Commercial Mobile Radio Services (CMRS) to participate in pooling before implementation of Local Number Portability (LNP) is not viable. This conclusion is based upon the pooling requirement for LNP software deployment (TIA IS 756-0 and IS 756A) which is not uniformly available for all switch types.

(e) The NANC NRO work on the Central Office Code Utilization Survey (COCUS) Replacement.[25]

(f) The published T1S1.6 Technical Requirements entitled "Thousand Block Number Pooling Using Number Portability" developed by the industry.[26] The FCC should adopt the proposed standards, once finalized. Industry fora, such as T1S1.6, should be used to modify existing technical requirements or identify additional technical requirements.

(g) The work analysis done by the industry on unassigned number porting (UNP). The NRO, and other industry groups, have repeatedly concluded that UNP is not a number optimization technique and does not, and will not, extend the life of any NPA. The Commission, and state commissions must adopt this conclusion. State commissions should not be given the

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24 Number Resource Optimization Working Group (NRO) Modified Report to the North American Numbering Council on Number Optimization Methods, filed Oct. 21, 1998. (NANC Report).

25 *See* Section III.B of these Comments.

26 ATIS T1S1.6 Working Group, Technical Requirements For Number Pooling.

authority to do UNP since it is not an NPA relief mechanism and it is not an optimization technique.

(h) As modified by BellSouth's comments herein concerning "test numbers" and "soft dial tone numbers," the uniform number status definitions as adopted by the Industry Numbering Committee (INC) in the resolution of INC Issue 134.[27]

II. THERE IS SUFFICIENT TIME IN THE LIFE OF THE NANP TO ADOPT AN INDUSTRY MODEL OF NUMBER OPTIMIZATION.

BellSouth agrees with the Commission that today's environment is characterized by rapidly exhausting telephone numbers. The NANP Exhaust Study by Lockheed Martin CIS cannot be ignored.[28] There was never any doubt prior to passage of the 1996 Act that the NANP would eventually exhaust, and planning efforts centered around NANP expansion predate the 1996 Act.[29] There can be no doubt that the exhaust dates projected for the NANP at the beginning of this decade have been accelerated by the competitive forces that have been enabled by mid-decade state and federal legislations.

Nevertheless, BellSouth shares the concerns of others that there are serious flaws in the NANP Exhaust Study. The industry review team disagreed with many of the assumptions used by NANPA in its bottom up NANP Exhaust projection. For example, a key assumption used by

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[27] BellSouth's comments concerning the definitions of "test numbers "and" soft dial tone numbers" are set forth in Appendix A, attached hereto.

[28] North American Numbering Plan Exhaust Study, dated April 22, 1999 (NANPA Exhaust Study), NRO NPRM at ¶ 5, n. 6.

[29] *NANP Order*, 11 FCC Rcd 2609. In July 1995, the INC established a workshop to develop an industry agreed recommendation for expanding the capacity of the North American Numbering Plan. This recommendation is to include, in addition to a detailed NANP expansion plan, implementation and evolution strategies, timing and evolution dependencies. The INC has recently completed the first phase of the project and will submit to NANC by December 1999 an update on subsequent work.

Lockheed Martin in the NANP Exhaust Study is the number of CLECs per rate center. The study assumed that there would be an equivalent of 27 CLECs in each rate center that has a CLEC presence. Another key assumption that impacts the study is the number of CMRS providers in each market. Lockheed Martin CIS assumed as many as 14 CMRS providers for each market, which appears to be inconsistent in light of existing Commission rules. The study further assumed that all segments of the industry requires an incremental central office code per NPA per switch/node. When the NANP exhaust study was modified to address industry concerns about these and other assumptions the NANP exhaust date estimate moved to 2016. A further refinement concerning the quantity of CLECs for each rate center shifts the exhaust of the NANP to 2023.

The portion of the study relating to number pooling, which has never been properly examined or evaluated, is troubling because of its untested assumptions especially relating to the impact of CMRS pooling. The Lockheed Martin CIS study does not assume a phased implementation of pooling across the NANP. Regarding CMRS impact, the NANP Exhaust Study Review Team found that NANPA overestimated the number of rate centers in which CMRS has a presence, overestimated the number of CMRS providers in a rate center, and overestimated the build-out footprint growth of CMRS, all contributing to a significant exaggeration of the true impact of CMRS pooling on extending the lifetime of the NANP. In addition, Lockheed Martin CIS included paging in the pooling model despite the exclusion of the paging industry from the Commission's number portability requirements.

Finally, there are no reliable estimates on what it will cost to expand the NANP. The costs quoted at NANC and in the NPRM are nothing but speculation and are not based on any supporting information. Nevertheless, BellSouth agrees that NANP expansion will inevitably

present significant costs to carriers and consumers, and therefore believes that appropriate numbering resource optimization strategies should be employed in order to delay the need to expand the resource. In summary, the NANP Exhaust study, as initially done by Lockheed Martin CIS, appears to present a worst case scenario that could only occur if each assumption in the original study actually materialized. If the Commission carefully analyzes these assumptions, it will realize that there is sufficient time to lay the foundation for a systematic, phased approach to number resource optimization.

III. THE COMISSION MUST ENCOURAGE THE INDUSTRY, STATE COMMISSIONS AND CONSUMERS TO RE-EXAMINE THE WAY TELEPHONE NUMBERS ARE USED IN TODAY'S MULTI-CARRIER, MULTI-SERVICE ENVIRONMENT.

The current demand on central office codes is, in part, an unintended consequence of the introduction of multiple new services and new service providers under policies adopted by this Commission. As competition has changed the single service/single entity *status quo,* so has competition changed the *status quo* of numbering. It is unrealistic to expect numbering resources within the NANP to last forever, and it is unconscionable for regulators not to educate consumers to the realities of number exhaust. Making the required changes in attitude and behavior are never easy and will require a fundamentally new way of thinking and looking at the resource. The Commission should encourage all interested parties in this regard.

A. All Service Providers Have A Responsibility To Use Industry Guidelines And Be Subject To Audits to Ensure Their Compliance.

The Commission has noted that one of the major drivers of number exhaust is the lack of discipline in the process by which numbering resources are administered and allocated.[30] The Commission is concerned that current industry developed guidelines for number allocation do

[30] NPRM at ¶ 36.

not impose adequate constraints on carrier's ability to obtain and stockpile numbers for which it has no immediate need.[31] In principle, BellSouth believes that the industry should continue to maintain and update relevant number allocation guidelines, subject to specific refinement by the industry to address the deficiencies identified by the Commission. This process is well underway and will result in better number allocation guidelines.

The Commission should resist codifying the relevant number allocation guidelines in order to preserve the industry's ability to timely modify the guidelines on an as needed basis. Codification could result in proposed modifications being the subject of potentially lengthy notice and comment rule making procedures, which could adversely impact service providers, and ultimately consumers. It is each carrier's responsibility to become familiar with the industry guidelines and to abide by them. Failure to do so should result in immediate administrative sanctions such as resource reclamation by the NANPA.

BellSouth agrees with the Commission that some degree of independent auditing is warranted to verify service provider accuracy of utilization data as well as compliance with industry guidelines and FCC rules. It is the FCC's responsibility to establish the audit framework. BellSouth believes that audits should only be undertaken when justified on a non-discriminatory basis because they impose significant burdens and costs on carriers.

B. The Commission Should Adopt The Work Accomplished By The NRO On COCUS Replacement.

The NANPA already has the means to produce a forecast for exhaust for all NPAs in World Zone 1 without carriers submitting a COCUS data. The NANPA is cognizant of all NXX and NPA assignments anywhere in the NANP and should have access to statisticians who

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31 *Id.* at ¶ 37.

specialize in forecasting. Using existing assignment data, existing expertise within the NANPA and the new entrant profile functionally of the proposed COCUS replacement, NANPA should be able to provide accurate forecasts for all NPAs. NPA specific data from carriers should only be needed on an exception basis. NANPA could use market forecast developed by industry analysts to project NPA growth. At a minimum, this methodology should be used for all NPAs that are projected to exhaust beyond a reasonable planning horizon.

However, if the Commission feels that a more refined COCUS is needed, BellSouth offers the following comments in response to the recent public notice on work done by the NANC NRO on the Central Office Code Utilization Survey (COCUS).[32] BellSouth supports the work done by the NRO. Two critical elements missing from the existing COCUS tool[33] are the lack of a requirement that service providers submit data, and a method to address the number demands of new service providers. Thus, regardless of what tool is used, whether it is the old COCUS, the enhanced COCUS used for 1999, or a future COCUS replacement, the process will be flawed until all service providers are obligated to submit data. Further, any forecast on NPA exhaust was immediately flawed as soon as new service providers began requesting codes in the NPA. The inclusion of these two critical elements in any COCUS replacement are independent of the granularity of the data submitted and frequency of the data submitted.

BellSouth supports the recommendation as submitted by the NRO to NANC at the June 1999 NANC meeting. The NRO's recommendation of the Hybrid Model strikes a reasonable balance between reporting requirements and the additional data needed by the NANPA to project

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[32] Common Carrier Bureau Seeks Comment on North American Numbering Council Recommendation Concerning Replacement of Central Office Code Utilization Survey, CC Dkt. No. 99-200, NSD File No. L-99-51, Public Notice DA 99-1315 (released July 1, 1999).

NPA exhaust. The Hybrid Model addresses new service providers. Thus, if all service providers were required to submit data using the Hybrid Model, the current COCUS process would be greatly improved. The NRO Report submitted to NANC also recommended that utilization be reported on an aggregate basis of "telephone numbers unavailable." In the NANC Report to the FCC Concerning the Replacement of COCUS, the NANC noted in a footnote that the majority of NANC members did not agree with the NRO recommendation on this issue and felt that utilization reporting using more disaggregated categories was required. The footnote further states that the NANC did not reach consensus to change the NRO recommendation. BellSouth strongly supports the NRO recommendation on this issue. At the NRO meetings that BellSouth attended, NANPA could not provide any rationale on how additional categories will lead to more accurate forecasts of NPA exhaust.[34] NANPA has proposed a model that puts additional costs on the industry without explaining why this additional data is needed or how it will be used. BellSouth objects to this proposal. "It would be nice to have" should not be the criteria used to determine the COCUS replacement. The NRO recommendation should stand as is until a true need for additional data is clearly demonstrated.

C. The Commission Should Work With State Commissions to Establish A Transition Plan To Mandatory Ten-Digit Dialing.

The Commission has identified the increased demand by new entrants and new technologies as one of its four number exhaust drivers.[35] Because one of the primary purposes of the Communications Act of 1934 is to encourage the development of new services, and because

[33] As contrasted with "Enhanced COCUS".

[34] In an actual audit service providers would need to have the capability to disagregate at a finer level.

[35] NPRM at ¶ 15.

the primary purpose of the Telecommunications Act of 1996 is to foster competition, the Commission correctly seeks to ensure sufficient access to numbering resources for all service providers that need them to enter into or to compete in telecommunications markets.[36] One optimization solution that the Commission should encourage in order to take full advantage of the NANP resource so that it can be made more widely available to new entrants and new technologies is mandatory ten-digit dialing.

All NANP expansion options now under consideration by the INC have as a fundamental assumption mandatory ten-digit dialing. Thus, the dialing of ten digits is inevitable. Because the continued protection of seven digit dialing results in under-utilization of the available telephone number resource, the Commission must now lay the foundation for dialing within the NANP to migrate to mandatory ten-digit dialing. BellSouth has experienced very few problems, including, complaints from consumers, in areas where ten-digit dialing has been required under the Commission's rules. Accordingly, BellSouth urges the Commission to take the following steps to introduce ten-digit dialing within the United States:

1) The Commission should require all carriers to allow ten-digit local calls within their networks. Such "permissive" ten-digit dialing is the logical first step towards mandatory ten-digit dialing. Permissive ten-digit dialing would allow alarm monitoring companies, and similarly impacted service providers, to an easily transition to the mandatory ten-digit dialing.

2) The Commission should require mandatory ten-digit dialing for all interstate calls. This will assist in addressing NPA relief situations that involve local, interstate calling where one state may prefer a different relief mechanism than the other state.

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[36] NPRM at ¶ 6.

3) Mandatory ten-digit dialing should be required whenever an NPA goes into jeopardy.

Ultimately, working with state commissions, the FCC should establish a plan for mandatory nationwide ten-digit dialing across the NANP. The plan should recognize the need for a phased transition that requires urban NPAs initially to migrate to mandatory ten-digit dialing. As the Commission notes, mandatory ten-digit dialing works as a number optimization method by freeing up more numbering resources for use through the reclamation of "protected" NXX codes. Although protected codes can and should be reclaimed without regard to whether mandatory ten-digit dialing is implemented,[37] codes are protected primarily to preserve seven-digit dialing. BellSouth believes that, in the long run, there will be less consumer confusion if all NXX codes are made available to all consumers via ten-digit dialing.

BellSouth believes that the inconveniences associated with mandatory ten-digit dialing outlined in the NPRM can be mitigated by the carefully phased introduction of mandatory ten-digit dialing as outline above. Consumers are already accustomed to dialing at least ten digits in many jurisdictions. In addition, many consumers memorize and dial carrier access codes and billing codes (as well as voice mail passwords and other numbering sequences) resulting in many consumers routinely dialing far more than ten digits on many calls. As mandatory ten-digit dialing is introduced, adequate time must be permitted to change advertising, stationery, databases and customer premises equipment (CPE) programming in the ordinary course of their business.[38]

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[37] NRO NPRM at n.203

[38] It is unlikely that advertisements and stationery destined for interstate commerce do not already contain area codes along with the telephone number. Certainly the development of e-commerce has fostered the use of all ten-digits among entities participating in this form of interstate commerce. For businesses that advertise seven digit telephone numbers in local media

It is not practical, however, to "open" the first digit of each NXX to make it possible to dial 0 or 1 (thus, "XXX" instead of "NXX") at the present time. While the proponents for "D" digit expansion may argue that opening the so-called "D" digits will increase number yields of about 20%, most switches in the PSTN cannot route such numbers, and there is no operation support system ready for such a fundamental change. Opening the "D" digit is complicated by the fact that there are many uses of the "D" digit that would require that an impact analysis be done prior to opening the "D" digit. The INC is currently looking at the implications of expanding the "D" digit in its NANPE Workshop (Issue 158). The industry does recognize, however, the need to eventually open the "D" digit. This is a fundamental assumption in the work done by the INC in its examination of options of how to expand the NANP. Mandatory ten-digit dialing, in combination with the administrative measures and optimization solutions outlined in these comments, will sufficiently prolong the life of the NANP to obviate any near term need for "D" digit expansion.

D. The FCC And State Commissions Should Adopt NPA Overlays As The Primary NPA Relief Method Of Choice.

Another readily available process that the Commission should encourage in order to take full advantage of the NANP resource such that it can be made more widely available to new entrants and technologies is the use of NPA overlays in area code relief efforts. From a number optimization viewpoint an NPA overlay should be the area code relief mechanism of choice. An overlay allows maximum use of the resources of the new NPA for the simple reason that all the allowable NXXs in the new NPA are available for assignment. However, because overlays

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and directories, or painted on their local fleets or billboards, it would be a relatively simple matter to modify such uses in the normal course of ad and directory renewal or fleet and signage maintenance, given the orderly transition to ten-digit dialing advocated by BellSouth.

require ten-digit dialing, state commissions have been reluctant in many cases to adopt them, even in the face of industry consensus favoring them, because of the perceived inconvenience to consumers occasioned by changed dialing patterns. The Commission correctly observes that ten-digit dialing on a nationwide basis might eliminate disincentives for states to adopt area code overlays.[39] Only when ten-digit dialing is the norm will state commissions then view NPA overlays as the norm for NPA relief. BellSouth does not support any variation of the current overlay rules, including waivers of the ten-digit dialing requirement or the use of service or technology-specific overlay plans. These overlay plans do not meet the Commission's optimization goal of ensuring that no class of carrier or customer is unduly favored or disfavored by optimization efforts.[40] They are anti-competitive, put wireless providers at a competitive disadvantage, are inefficient because they may result in an immediate request for additional NPAs and may result in stranded resources within the NPA. In addition, technology or wireless specific overlays are simply not maintainable in a number portability environment where wireless to wireline porting is required.

Many state commissions continue to order geographic NPA splits as the relief mechanism of choice even though it clearly does not optimize the resource. A split is often ordered along boundaries that are politically driven which results in a further reduction in the efficiency of the resource. For example, one state commission in BellSouth's ILEC operating territory recently ordered a split that resulted in the expected life of the new NPA being approximately 17 years longer than the life of the old NPA. The state commission ordered the split despite the knowledge that the split would create, in addition to burdens on consumers forced to take the

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39 NRO NPRM at ¶ 123.

40 *Id.* at ¶ 6.

new area code, an almost immediate exhaust condition in the old NPA, and the necessity for further NPA relief.[41] State commissions often reverse recommendations made by the industry for an overlay as the preferred choice for NPA relief. Within the BellSouth region, there have been several instances where the industry recommendation for an NPA overlay has been overturned by state commissions. BellSouth understands the difficulty that state commissions face when making NPA relief decisions. However, if the FCC were to begin a transition to ten-digit dialing, or encourage industry implementation, where appropriate, of all services overlays, the first steps towards true number resource optimization would occur.

In addition to number optimization benefits, all service overlays are quicker, easier, and less expensive than other forms of relief. With an overlay, there is no significant impacts or financial burdens on existing customers--customer number changes and reprogramming of terminal equipment (including, but not limited to, wireless equipment), and CPE are not required. This is increasingly important in today's environment where NPA relief for high growth areas can occur quite frequently. Once an overlay is implemented, it is anticipated that all future relief for the impacted geographic area will be done via an overlay because there is no additional impact associated with subsequent overlays. Industry input for future relief is not needed or is minimized. The ten-digit local dialing requirement for an NPA overlay introduces and promotes a uniform dialing pattern that is consistent with both the industry's dialing plan recommendations and the options currently under consideration for NANP expansion.

E. The Potential Benefits Of Rate Center Consolidation Must Not Be Ignored.

The solution to the multiple rate center number exhaust driver identified by the Commission is straightforward: if the number of rate centers can be reduced, the number of NXX

[41] At least one other state commission ordered a split that resulted in similar consequence.

codes that need to be assigned to carriers can, as a consequence, be reduced. Rate center consolidation should in most cases be quicker and less costly to implement than number pooling and, if it does not entirely obviate the need for number pooling, should still increase the potential benefits of number pooling.[42] Thus, the FCC should require state commissions to show that they have thoroughly examined the benefits and impacts of rate center consolidation: (1) prior to the implementation in any area of thousands block number pooling within the particular area;[43] and (2) prior to any request for a grant of additional delegated authority for numbering optimization.

IV. FOR LNP CAPABLE CARRIERS, THOUSAND BLOCK NUMBER POOLING SHOULD BE IMPLEMENTED IN A PHASED APPROACH SIMILAR TO LNP BUT NOT NECESSARILY ACROSS THE TOP 100 MSAs.

Number pooling allows service providers in a given area to receive numbers in blocks smaller than 10,000 by breaking the association between the NPA-NXX and the service provider to whom the call is routed.[44] Technical alternative call routing arrangements can be supported by the Location Routing Number (LRN) infrastructure that currently supports the current long-term data base method of providing number portability, LNP.[45] The development of LNP, as well as its attendant technical specification development and neutral administration, was facilitated by Commission's providing a general framework for performance that the industry achieves through ongoing consensus-driven work efforts. Similarly, a national approach to the implementation of LNP-based number pooling is needed. All areas that implement thousands block pooling must

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42 Even if multiple rate centers don't appear to pose a current problem in a selected area, rate center consolidations should still be considered as a precursor to number pooling.

43 Based on BellSouth's initial analysis in Atlanta and in parts of North Carolina, it appears that rate center consolidation may prove effective in selected areas. However, rate center consolidation will have impacts on local calling and carrier revenues that state commissions cannot ignore. For this reason, rate center consolidation must only be ordered by state commissions when it can be accomplished on a revenue neutral basis.

44 NRO NPRM at ¶ 130.

do so using the same national standards and requirements, specifically version 3.0 of the Number Portability Administration Center (NPAC) software release.[46] It is not reasonable however, to expect non-LNP capable carriers to implement number pooling.

The Commission correctly observes that pooling should be implemented only when circumstances warrant it, and specifically when the benefits outweigh the costs.[47] For wireless providers, the benefit/cost ratio is marginal at best. Due to the need to implement some level of LNP functionality uniformly over the entire NANP area, and additional costs due to pooling itself, it is more burdensome cost-wise for CMRS carriers to utilize pooling. The benefits, however, are questionable since wireless providers only have a presence in five to ten percent of rate centers, and can contribute numbers only in those rate centers. In addition, CMRS providers have relatively high utilization and growth rates, which would further limit their contribution. For LNP capable carriers cost effective pooling can only be attained where there is both an appropriate number of rate centers, and an appropriate number of competing service providers.[48] The Commission should adopt the NRO Report's conclusions regarding the conditions in which pooling can be most beneficial, specifically early in the "life" of an NPA when significant life extension can be achieved. As with LNP, a phased implementation schedule makes conceptual sense. However, the Commission should only schedule an initial phase (Phase I) at this time. This initial phase should target, if possible, two to three mid-size metropolitan statistical areas (MSAs) in each of the seven NPAC regions. Such efforts will provide both the FCC and the

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45 *Id.* at ¶ 131.

46 BellSouth supports the work done by the INC on number pooling more particularly described on page 5 of these comments.

47 NRO NPRM at ¶ 148.

48 *Id.* at ¶ 149.

industry the information that is needed to properly evaluate the benefits and costs and to determine an appropriate schedule for number pooling in additional MSAs where it may be warranted.

The Commission should not, however, delegate authority to state commission to mandate number pooling under the current circumstances. Because of the political pressures arising from consumer dissatisfaction directed at state commissions in the context of unpopular area code relief decisions, it is natural that many states will continue to view number pooling as a way to avoid making these difficult NPA relief decisions. Number pooling is *not* a NPA relief method but rather a more efficient way to allocate numbering resources that may, in the long run, stave off exhaust within an area code. State commissions should be required to thoroughly examine rate center consolidation before pooling is implemented within their states. This would give incentive to state commissions to address number optimization within their jurisdiction using measures currently at hand.

If and when the Commission determines that it is appropriate to establish an implementation schedule for number pooling, it should also clarify that version 3.0 of the NPAC software is required to ensure that pooling is properly implemented. The NPAC 3.0 specifications include, among other things, requirements for efficient data representation (EDR) which the industry has deemed essential for number pooling.[49] The Commission must also recognize that once a contract has been signed between the regional LNP LLCs and the NPAC-

[49] The industry has explored advancing the date for the NPAC 3.0 requirements. The NPAC vendor, Lockheed Martin, has indicated that the delivery date for version 3.0 of the NPAC date is highly dependent on EDR functionality. Removing non-EDR functionality from the NPAC 3.0 software does not significantly change the timeline for EDR functionality delivery.

vendor on NPAC 3.0 pooling requirements, ample time is required for NPAC-vendor development, testing and delivery. Service providers will then need ample time to complete sequential internal operation support systems testing prior to conducting industry interoperability testing.

As clarification with regard to the relationship between number assignment management and number pooling, BellSouth supports service providers administering their numbering resources inventory in a way that will maximize vacant thousand number blocks in preparation for thousands block pooling. However, BellSouth's comments, referenced by the Commission, were based on a different interpretation from the Commission's on how "thousand-block sequential number assignment" pooling would be implemented. BellSouth supports the concept of thousand block number management, which is the process by which providers manage numbers within an NXX at a thousand-block level. Service providers would attempt to assign numbers out of specific thousand-number blocks within an NXX prior to assigning numbers out of additional thousand blocks within the NXX. Thus, thousand block number management attempts to achieve high utilization for each thousand block within the NXX before making assignments out of a subsequent thousand blocks. In areas where number pooling might be implemented, therefore, carrier should manage their telephone number inventory so to maximize the number of vacant thousand number blocks. BellSouth does not, however, support the Commission's apparent belief that each individual telephone number within an NXX block should be assigned in sequence as this would present unnecessary administrative and technical burdens for service providers and a lack of choice for the public.

A. The LNP End User Line Charge Should Be Modified To Allow Cost Recovery For Number Pooling.

BellSouth agrees with the Commission's conclusion that section 251(e)(2) of the 1996 Act addresses both interstate and intrastate matters and that an exclusively federal recovery mechanism for number pooling is appropriate. BellSouth agrees that the costs of number pooling comprise: (1) costs incurred by industry as a whole; (2) carrier-specific costs directly related to thousands-block pooling implementation; and (3) carrier-specific costs not directly related to thousands-block pooling implementation. BellSouth agrees that the shared industry costs of thousands-block pooling implementation should be allocated through the existing NANPA formula. Type 1 and Type 2 costs should be recoverable through explicit cost recovery mechanisms as should the advancement of any Type 3 costs. A cost recovery mechanism that attempts to separate the costs of number pooling between interstate and intrastate jurisdictional is not warranted.

The primary motivation for number pooling is to increase number utilization and ultimately the life of the NANP. Even if carriers do not participate in number pooling, they will, if number pooling is successful, still benefit from number pooling. Also, even if some states or areas do not participate in pooling, they will still benefit from number pooling in that the life of the NANP is extended. Thus, the Type I costs of number pooling should be spread across all telecommunications carriers on a competitively neutral basis—just like the cost for the administration of the NANP is spread across all carriers.

The simplest and best way to address cost recovery for incumbent LECs is to allow modification of the LNP end user line charge for number pooling. If ILECs are not allowed to modify the their LNP end user line charge, then ILECs subject to rate-of-return or price-cap regulation should recover their carrier-specific costs directly related to thousands-block pooling

implementation through the existing cost recovery mechanisms of rate-of-return or price-cap adjustments. Price cap LECs should be permitted to treat as exogenous Type 2 costs directly related to the implementation of number pooling.

The FCC seeks comment on whether pooling costs should be recovered through a per-number charge. Fundamentally, BellSouth opposes this position. Allocating number pooling costs based on the quantity of numbers each carrier has would not be competitively neutral. In addition, it does not take into account how efficiently carriers use numbers.

CONCLUSION

Number exhaust drivers one (10,000 telephone number NXX allocation) and two (multiple rate centers) are best approached through the examination of rate center consolidation by state jurisdictions and through, if necessary, the implementation of thousand block number pooling in a phased, controlled manner based on industry developed national standards. Number exhaust driver number four (absence of regulatory, industry or economic control over number supply and demand) is best addressed by requiring all service providers to follow and adhere to industry-developed revised number allocation guidelines combined with selective auditing. Number exhaust driver three (new service demand) is best addressed by implementing the optimization methods that best address drivers one, two and four, by beginning the transition to mandatory ten-digit dialing throughout the NANP, and recognition of overlays as the area code relief method of choice.

The FCC should endorse the key number resource optimization decisions adopted by the industry as set forth herein. Because state commissions may be prone to select a number resource optimization method or area code relief plan on the basis of political expediency rather than on resource optimization, the Commission should only grant any requests for additional

delegated authority when a state commission can demonstrate that it has carefully considered rate center consolidation, and has implemented area code relief plans in accordance with the consensus recommendation of the industry. A state should not be delegated authority to order number pooling except upon a showing that the state commission has thoroughly examined rate center consolidation in the relevant area and upon finalization of national industry standards for thousands block pooling and a national framework for phased implementation.

Respectfully submitted,

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Date: July 30, 1999

APPENDIX A

BellSouth supports the uniform number status definitions as adopted by the INC in the resolution of INC Issue 134. In addition, BellSouth adds the following comments on "test numbers" and "soft dial tone" numbers:

1. **BellSouth sees no need to change or tighten the "test number" definition at this time.**

   If any changes are needed in the test number definition or if the appropriate (and inappropriate) uses of test numbers should be investigated and documented, these activities should be undertaken by the INC, working with the NIIF. The NIIF currently maintains a list of test numbers for various network purposes. Thus, any investigation and determination of the appropriate uses of test numbers would be best addressed at the NIIF.

2. **Soft dial tone numbers should <u>not</u> be categorized as administrative numbers. These numbers should be counted in our utilization figures as working numbers.**

   The soft dial tone number is assigned to a specific location although there may be no customer at that location for some period of time. A carrier should not be penalized in its utilization levels for its efforts to improve customer service, to provide emergency call capabilities on lines where service has not been activated, and to provide operational efficiencies. It may be appropriate to have a sub-category under working numbers to accommodate soft dial tone numbers. Moreover, the INC recently adopted a definition of for "Active Number" which is similar to the definition for "working telephone number" that is proposed by the Commission in the NRO NPRM.

CERTIFICATE OF SERVICE

I do hereby certify that I have this 30th day of July, 1999, served the following parties to this action with a copy of the foregoing ***BELLSOUTH COMMENTS***, referenced CC Docket No. 99-200, RM No. 9258, NSD File No. L-99-17, and NSD File No. L-99-36, by hand delivery or by placing a true and correct copy of the same by Federal Express, addressed to the parties listed below.

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