

Carriers participating in pooling thereby are able effectively to share numbering resources from a single NXX code. As part of our inquiry, we considered (1) thousands-block number pooling; (2) individual telephone number (ITN) pooling; (3) and unassigned number porting (UNP) as possible number pooling strategies for implementation on a nationwide basis.²³⁷

117. All three pooling strategies utilize the LRN architecture that supports LNP.²³⁸ The LRN database structure is used to route calls to customers who have been assigned telephone numbers from a pool because, as with a ported number, the NPA-NXX of a pooled number no longer necessarily identifies the switch or service provider associated with the service. Thus, number pooling can be implemented only where LRN LNP has been deployed. Also, because of the current wireline call rating mechanisms associating an NXX with a rate center, the proposed pooling methodologies would be based on the rate center structure in place in a given NPA.²³⁹ Therefore, each rate center would contain a separate pool of numbering resources.²⁴⁰

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pooling breaks the association between the NPA-NXX and the service provider to whom the call is routed by the Location Routing Infrastructure.

²³⁷ Notice, 14 FCC Rcd at 10381-91. Thousands-block number pooling enables carriers to receive numbering resources in blocks of 1,000. ITN enables carriers to receive telephone numbers one at a time. UNP, although not technically a pooling method because carriers receive numbering resources from each other, rather than from a common pool overseen by a pooling administrator, is similar to ITN in that individual numbers are ported using the same network infrastructure (LNP) to route calls.

²³⁸ The LRN is a unique ten-digit number assigned to each central office switch to identify each switch in the network for call routing purposes. See ATIS T1S1.6 Working Group Technical Requirements No.4 for Thousands-Block Pooling Using Number Portability (T1S1.6 Thousands-Block Number Pooling Technical Requirements). The T1S1.6 Working Group was created to develop standards and requirements for number portability with the support of ATIS. See Accredited Standards Committee-T1 Telecommunications Procedures Manual at 21. Committee-T1 documents are available at <<http://www.atis.org>>.

When an individual telephone number is ported, a record associating the ported number with the LRN of the appropriate service provider's switch is created and stored in the former carrier's LNP service control point (SCP) database, via downloads from the local Service Management System (SMS). Local SMSs (LSMSs) are the databases that carriers will regularly access to obtain information on ported telephone numbers. The Number Portability Administration Center (NPAC) SMSs are the regional databases maintained by the local number portability administrators, which contain the lists of ported telephone numbers and associated LRNs. These lists of ported numbers and LRNs are periodically transmitted from the NPAC SMSs to the LSMSs, and then downloaded to network SCPs for call processing. Telephone Number Portability, *Second Report and Order*, CC Docket No. 95-116, 12 FCC Rcd 12281, 12288 (1997) (*Telephone Number Portability Second Report and Order*). Any service provider routing a call to the ported number would do so by querying the database to determine the LRN that corresponds to the dialed telephone number, and routing the call to the switch identified by that LRN. See generally *Id.* at 12287. See also Notice, 14 FCC Rcd at 10381-83. The LRN method was initially recommended by the industry and state/regional workshops, and adopted by the Commission in *Telephone Number Portability Second Report and Order*, 12 FCC Rcd at 12283.

²³⁹ Pooling, however, could be extended beyond the rate center if methods to eliminate the link between call rating and NXX codes using the SS7 network were implemented.

²⁴⁰ The concept of pooling within the rate center was introduced by the INC at the June 10, 1997 NANC meeting. The NANC supported this paradigm. See also NANC Number Resource Optimization Report, October 21, 1998.

2. Thousands-Block Number Pooling

a. Background

118. Thousands-block number pooling involves breaking up the 10,000 numbers in an NXX into ten sequential blocks of 1,000 numbers each, and allocating each thousands-block to a different service provider, and possibly a different switch, within the same rate center. All 10,000 numbers available in the NXX code are allocated within one rate center, but can be allocated to multiple service providers in thousand number blocks, instead of only to one particular service provider.²⁴¹ A Pooling Administrator, an independent third-party entity, coordinates the allocation of numbers to a particular service provider with the Number Portability Administration Center (NPAC) SMSs.²⁴² In the *Notice*, we tentatively concluded that, given the potential benefits of nationwide pooling in making more efficient use of NXX codes, implementing thousands-block number pooling in major markets is an important numbering resource optimization strategy that is essential to extending the life of the NANP.²⁴³ We sought comment on how thousands-block number pooling should be implemented.²⁴⁴ We also sought comment on how best to achieve our goal of facilitating carrier participation in areas where the benefits of pooling outweigh the associated costs.²⁴⁵

119. In the *Notice*, we also considered whether there were incentive-based mechanisms that could be used to address the numbering crisis without a regulatory mandate.²⁴⁶ In particular, we discussed the possibility of adopting a “carrier choice” alternative based on a carrier’s achieving a mandatory utilization threshold as a substitute for mandatory participation in technical optimization solutions such as thousands-block pooling.²⁴⁷ This strategy contemplates establishing thresholds for efficient use of numbering resources and leaving the choice of method for achieving those thresholds to individual carriers.

²⁴¹ For example, if the 202-418 NPA/NXX were pooled, up to ten service providers could serve customers from it. One service provider could be allocated every line number from 202-418-0000 through 202-418-0999. Another service provider could be allocated every line number in the range 202-418-1000 through 202-418-1999.

²⁴² The NPAC SMSs are regional databases that contain all necessary routing information on ported telephone numbers and facilitate the updating of the routing databases of all subtending service providers in the portability area. As noted above, to facilitate proper network routing in a thousands-block number pooling environment, every service provider’s existing LNP SCP database within the pooling area would store specific LRN routing information for thousand number blocks within the same NXX. In addition, each service provider’s LNP mechanism would query its database for calls to pooled numbers allocated to other service providers.

²⁴³ *Notice*, 14 FCC Rcd at 10384.

²⁴⁴ *Id.*

²⁴⁵ *Id.*

²⁴⁶ *Id.* at 10413.

²⁴⁷ *Id.* at 10413-14.

120. Subsequent to the release of the *Notice*, the Commission delegated interim authority to implement thousands-block number pooling to particular state commissions that had requested such authority because we recognized that thousands-block number pooling may extend the lives of certain jeopardy NPAs in those states.²⁴⁸ By granting such authority to these state commissions, however, we did not intend to permit state commissions to engage in thousands-block number pooling to the exclusion of, or as a substitute for, unavoidable and timely area code relief.²⁴⁹ We also recognized the potential for confusion and unnecessary burdens on carriers from the impact of disparate standards in the implementation of thousands-block number pooling and, thus, our grants of such authority were subject to the caveat that these interim delegations would be superseded by a nationwide number conservation strategy.

b. Discussion

121. We agree with commenting parties that a carrier choice approach would reduce the potential effectiveness of certain optimization strategies, particularly thousands-block number pooling, because fewer carriers would participate.²⁵⁰ Thus, carriers with high utilization rates would continue to draw additional numbering resources in blocks of 10,000, which would likely perpetuate the phenomenon of stranded, unassignable numbers in the NXX blocks controlled by these non-pooling carriers.²⁵¹ We also agree with Bell Atlantic that numbering optimization measures, such as thousands-block pooling, provide the greatest benefits when participation is maximized, and allowing carriers to opt out would significantly limit their benefit.²⁵² We also note that a carrier choice approach would be very difficult to administer, difficult to enforce, and would unnecessarily complicate cost recovery mechanisms.²⁵³ For instance, requiring some carriers to pool, while excluding others, would require the former to pay more for the use of

²⁴⁸ See *California Delegation Order*, 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order*, 14 FCC Rcd at 17510-16; *Maine Delegation Order*, 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order*, 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order*, 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

²⁴⁹ See *Pennsylvania Numbering Order*, 13 FCC Rcd at 19027. The Commission stated that these grants of interim authority are limited delegations of authority that do not abrogate the state commissions' obligations to follow the area code implementation guidelines established in the *Local Competition Second Report and Order*.

²⁵⁰ See ALTS comments at 26; GTE comments at 67 (stating that the carrier choice approach would create great difficulties for enforcement and audits); New York Commission comments at 19-20 (stating that inconsistent application of number optimization measures would exacerbate numbering shortage); USTA comments at 12 (stating that allowing carriers to choose among many number optimization measures will likely reduce the effectiveness of the measures because fewer carriers would be required to implement the number optimization methods).

²⁵¹ Several states strongly disagree with the carrier choice approach, asserting it will be impossible for carriers to reach high utilization rates without mandatory thousands-block number pooling. See Letter from Trina M. Bragdon to Magalie Roman Salas, FCC dated January 31, 2000.

²⁵² See MCI WorldCom comments at 31.

²⁵³ See Maine Commission comments at 25-27.

numbering resources than the latter.²⁵⁴ Furthermore, we believe that the industry and consumers are best served by national number resource optimization standards implemented consistently and in a competitively neutral manner across the nation. We decline, therefore, to adopt the carrier choice approach discussed in the *Notice* and advocated by some parties.²⁵⁵ We have, however, sought to incorporate, to the extent possible, the incentive-based rationale within the carrier choice proposal.

122. Pursuant to our authority under section 251(e) of the 1996 Act,²⁵⁶ we adopt thousands-block number pooling as a mandatory nationwide numbering resource optimization strategy. Although we set forth the national pooling framework in this *Report and Order*, we will roll out thousands-block number pooling at the national level after we select a national pooling administrator.²⁵⁷ Consistent with our tentative conclusion in the *Notice*, we find that the implementation of thousands-block number pooling in major markets is essential to extending the life of the NANP by making the use of NXX codes more efficient.²⁵⁸ We note that a wide array of commenting parties also agree with our tentative conclusion and support the adoption of a national thousands-block number pooling plan.²⁵⁹ As we stated earlier, the allocation of numbering resources in blocks of 10,000, without regard to the quantity of numbers a carrier needs in a given rate center at a given moment, is a significant driver of premature number exhaust.²⁶⁰ Because many new entrants in a market do not have the customer base to be able to utilize 10,000 numbers in an NXX, the unused numbers become stranded. We therefore concur with Qwest that thousands-block number pooling will reduce the incidence of stranded numbers by allowing carriers to submit numbering requests that more closely approximate their immediate numbering needs.²⁶¹ Thus, thousands-block number pooling is a valuable mechanism to remedy the inefficient allocation and use of our numbering resources.²⁶²

²⁵⁴ See AT&T comments at 58-60.

²⁵⁵ GTE comments at 43; Liberty comments at 70; SBC comments at 70.

²⁵⁶ 47 U.S.C. § 251(e).

²⁵⁷ See *infra* discussion at ¶¶ 156-66.

²⁵⁸ *Notice*, 14 FCC Rcd at 10384.

²⁵⁹ See, e.g. ALTS comments at 23; Ameritech comments at 40; AT&T comments at 39; Bell Atlantic comments at 23; Cablevision Lightpath (Cablevision) comments at 5; California Commission comments at 26; Connecticut Commission comments at 6; Maine Commission comments at 19; MediaOne comments at 21; Nextel comments at 17; Nextlink comments at 9-10; New York Commission comments at 10; Sprint comments at 16; USTA reply comments at 18.

²⁶⁰ Cablevision comments at 5; Qwest comments at 3.

²⁶¹ Qwest comments at 3; Nextel comments at 17; Time Warner comments at 6.

²⁶² ALTS comments at 23; Cablevision comments at 6; California Commission comments at 27; Connecticut Commission comments at 6; Cox comments at 15; Maine Commission comments at 21; Nextlink comments at 9; New Hampshire Commission comments at 16; Sprint comments at 16.

123. Furthermore, unlike WinStar,²⁶³ we are persuaded from our observation of the ongoing mandatory state-sponsored pooling trial in the 847 NPA in Illinois that thousands-block number pooling can extend the life of an NPA in a manner in which the benefits exceed the carrier-specific costs which carriers must incur to enable them to receive pooled numbers. In particular, we observe that, after thousands-block pooling was implemented in June 1999, the projected life of the 847 NPA was extended by two years.²⁶⁴ We believe that the benefits to carriers, businesses and consumers of the cost savings resulting from the ability to meet numbering needs without the implementation of area code relief for at least two years justified the cost of implementing pooling in the 847 NPA. As we stated earlier, though difficult to quantify in an exact manner, the tangible and intangible costs of frequent area codes changes to businesses and consumers are significant.²⁶⁵ We nevertheless re-emphasize that the adoption of a national thousands-block number pooling framework is not a substitute for timely area code relief once additional numbering resources are needed, though we believe it can substantially extend the time before such relief is necessary.²⁶⁶

124. We disagree with parties who maintain that it is inappropriate and unjustifiable for the Commission to mandate nationwide thousands-block number pooling at this time.²⁶⁷ The widespread incidence of area code exhaust has placed a tremendous burden on consumers and has caused the NANP to come perilously close to exhaust; eventually, exhaust will necessitate expansion of the NANP at significant cost. Our efforts here seek to ensure fair and impartial access by all telecommunications carriers to numbering resources, given the impact of the rapid depletion of these numbering resources.²⁶⁸ We are confident that our actions in this proceeding will temper the need for future area code relief by facilitating more efficient use of our numbering resources. In addition, because competition in telecommunications markets is dependent, in part, upon fair and impartial access by all telecommunications carriers to national numbering resources, we view our efforts with regard to numbering resource optimization as an integral part of the Commission's overall efforts to implement the pro-competitive goals of the 1996 Act. We also believe that, as part of our plenary jurisdiction over numbering issues, we are obligated to alleviate the burdens placed on consumers by the inefficient use of numbering resources.²⁶⁹

²⁶³ WinStar comments at 20 (maintaining that the data from the Illinois and New York trials suggest a less than compelling case for pooling).

²⁶⁴ See Ganek, *Leveraging LNP*, Telephony, February 7, 2000.

²⁶⁵ See *Where Have All the Numbers Gone? Long-Term Area Code Relief Policies and the Need For Short-Term Reform*, Economics and Technology, Inc., March 1998, at 19-24 (*Where Have All the Numbers Gone?*).

²⁶⁶ See Cox comments at 15; SBC comments at 83.

²⁶⁷ Burrows comments at 6; CinBell comments at 10; Level 3 comments at 13; Omnipoint comments at 22; VoiceStream comments at 25.

²⁶⁸ Connecticut Commission comments at 6; MediaOne comments at 21.

²⁶⁹ ALTS comments at 3; Bell Atlantic comments at 25; Qwest comments at 5.

125. We also find it necessary to make participation in a national thousands-block number pooling framework mandatory for all carriers that are currently required to be LNP-capable, either because they provide service in one of the largest 100 MSAs, or pursuant to a request from another carrier.²⁷⁰ We are concerned that an optional thousands-block pooling framework based on a carrier's rate of utilization of its numbering resources, as proposed by several commenters,²⁷¹ might compromise the potential effectiveness of this numbering resource optimization strategy.²⁷² Thousands-block number pooling will realize the greatest savings in NXX code usage when the majority of the users of numbering resources receive their numbers in thousands-blocks, instead of blocks of 10,000.²⁷³ Additional benefits of thousands-block number pooling will be in the form of fewer stranded numbers, greater competition from more carriers being able to receive numbers, and less incentive to hoard. Our decision to require mandatory pooling at a national level once we select a pooling administrator is supported by the experience of the voluntary thousands-block pooling trials in the 212 and 718 NPAs in New York, which have not achieved much benefit because few carriers chose to participate.²⁷⁴

126. We also reject the assertion that the adoption of a mandatory thousands-block number pooling framework is premature because substantial technical issues remain unresolved.²⁷⁵ Indeed, we find that the majority of the technical issues concerning thousands-block number pooling have been resolved in industry fora, and the industry's agreement on technical standards for this strategy is reflected in the promulgation of the T1S1.6 Working Group's Technical Requirements for Thousands-Block Number Pooling Using Number Portability and the Thousand Block Pooling Guidelines. Also, NeuStar, the current local number portability administrator (LNPA), plans to activate the NPAC Release 3.0 software in July, 2000,

²⁷⁰ Notice, 14 FCC Rcd at 10385. See also ALTS comments at 23; Nextel comments at 19; Small Business Alliance comments at 9. The Commission required wireline carriers in the largest 100 MSAs to implement LNP as of December 31, 1998, in switches that another carrier has requested be made LNP capable. 47 C.F.R. § 52.23(b)(1). As of January 1, 1999, LECs may request LNP in other LECs' individual switches in areas outside of the largest 100 MSAs, to be provided no later than six months after receiving the request. CMRS carriers are not required to deploy LNP until November 24, 2002. See *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3093. We do not, in this *Report and Order*, change the circumstances under which carriers are required under our rules to acquire LNP capability.

²⁷¹ GTE comments at 43; SBC comments at 68, 70; Liberty comments at 5.

²⁷² See Bell Atlantic comments at 37; New York Commission comments at 19-20; USTA comments at 12.

²⁷³ Connecticut Commission comments at 6.

²⁷⁴ The trial in the 212 NPA began on July 1, 1998, and the 718 NPA trial began on March 1, 1999. There are 26 potential pooling participants in the 212 NPA and 24 potential participants in the 718 NPA. The NANPA informs us that, to date, in the 212 NPA, five providers donated thousands-blocks to the pool and six providers received thousands-blocks from the pool. Pooling thus far has resulted in the saving of only 8 NXXs. Although the 718 NPA trial has had four participants donate to the pool, no carrier has received thousands-blocks from that NPA and thus no NXXs have been saved. At this point, the 212 NPA is exhausted of CO codes and the 718 NPA has only 7 CO codes remaining. See *212/718 Voluntary Telephone Number Pooling*, NeuStar, dated February 22, 2000.

²⁷⁵ RCN comments at 13.

which is expected to significantly extend carriers' system capacity for pooling.²⁷⁶ We also note that the pooling trials that are currently underway have not experienced any significant technical difficulties.²⁷⁷ We recognize, however, that in the early stages of national pooling implementation, some additional technical issues may have to be resolved either within the pooling administrator's pooling platform or carrier interfaces.²⁷⁸

127. We conclude that delaying implementation of thousands-block number pooling until all carriers are required to be LNP-capable, as suggested by some commenters,²⁷⁹ would needlessly prolong the inefficiencies resulting from the current number allocation system. Because the majority of wireline carriers in the major markets currently possess LNP capability, we believe that pooling will appreciably extend the lives of some NPAs already in jeopardy as well as all new NPAs going forward. LNP capability is already mandated in the areas where number usage is likely to be the highest; *i.e.*, in the largest 100 MSAs. We also note that there are 170 NPAs in the largest 100 MSAs and these particular NPAs constitute approximately 54% of the total number of NPAs nationwide.²⁸⁰ Moreover, we find that 28 percent of the NPAs in the largest 100 MSAs are in jeopardy, while about 24 percent of the area codes outside the largest 100 MSAs are in jeopardy.²⁸¹ Thus, the benefits of pooling can potentially affect a large number of areas and consumers.

128. We conclude that national thousands-block number pooling should be administered by a single national pooling administrator because we seek to ensure consistency and uniformity in pooling administration in a cost-effective manner. We find it necessary, however, to delay the implementation of thousands-block number pooling on a nationwide basis until a national pooling administrator is selected. To mitigate the impact on the NANP of this delay in our ability to commence national pooling, we will continue to permit states to implement individual pooling trials through individual requests for additional delegation of authority. We, however, decline to further delay the commencement of nationwide pooling until

²⁷⁶ When a number is ported, carriers must utilize software in the NPAC system to download and store the telephone number and associated LRN. Both NPAC Release 1.4 and NPAC Release 3.0 are customized to perform pooling. The ongoing state pooling trials, for which NeuStar serves as the Pooling Administrator, are currently using the NPAC Release 1.4 software.

²⁷⁷ The Illinois Commission began a mandatory thousands-block pooling trial in the 847 NPA in June 1998. See Illinois Number Pooling Trial Within NPA 847 Interim Report (Apr. 26, 1999) (estimating a savings of 137 NXX codes as a result of pooling). This document is available at <<http://www.numberpool.com/POOL/pac.htm>>. The New York Commission began voluntary thousands-block pooling trials in the 212 NPA in July 1998, and in the 718 NPA on Jan. 1, 1999. See New York State Department of Public Service Petition for Additional Delegated Authority to Implement Number Conservation Measures, filed Feb. 19, 1999, at 7.

²⁷⁸ Ameritech comments at 40.

²⁷⁹ Level 3 comments at 13; RCN comments at 13; Omnipoint comments at 6.

²⁸⁰ This information was based on data from the following Internet sites: <<http://www.nanpa.com>>; <<http://www.lincmad.com>>; <<http://www.census.gov>>.

²⁸¹ *Id.*

after states have implemented other conservation measures such as rate center consolidation, ten-digit dialing, audits, and reclamation of unused NXX codes, as suggested by some parties.²⁸² Although we continue to believe that the implementation of these other measures also will assist in further optimizing our numbering resources, we conclude that the implementation of thousands-block number pooling need not be linked to the implementation of other number conservation measures, given the urgency of the numbering crisis facing the nation and the uncertain time-frames in which these other measures may be implemented.²⁸³

B. Requirements for Non-LNP-Capable Carriers

a. Background

129. In the *Notice*, we sought comment on whether the need to promote efficient use of numbering resources requires non-LNP-capable carriers to participate in thousands-block number pooling, the relative costs and benefits of extending thousands-block number pooling requirements to such carriers, and whether there are viable non-LNP based alternatives to thousands-block number pooling that would promote the efficient use of numbers by non-LNP-capable carriers.²⁸⁴ We divided non-LNP-capable carriers into three categories: (1) "covered" CMRS carriers²⁸⁵ in the largest 100 MSAs, which are not currently LNP-capable, but will be required to implement LNP by a date certain; (2) wireline and "covered" CMRS carriers outside the largest 100 MSAs, which will be required to deploy LNP in the future only if and when they receive a request from a competing carrier;²⁸⁶ and (3) non-covered CMRS providers, such as paging carriers, which are not subject to LNP requirements of any kind.²⁸⁷ With respect to "covered" CMRS providers in the largest 100 MSAs, we noted our decision in the *CMRS LNP Forbearance Order* stating that covered CMRS providers would be required to implement LNP

²⁸² See AirTouch comments at 10; Liberty comments at 3; Omnipoint comments at 6; CinBell comments at 10; PrimeCo comments at 7; Sprint comments at 21.

²⁸³ Several commenters agree with this conclusion. See California Commission comments at 23; Nextlink comments at 8; Massachusetts Commission comments at 4; Wisconsin Commission comments at 8.

²⁸⁴ *Notice*, 14 FCC Rcd at 10392.

²⁸⁵ The term "covered CMRS" refers to broadband Personal Communications Service (PCS), cellular, and 800/900 MHz Specialized Mobile Radio (SMR) licensees that (1) hold geographic area licenses or are incumbent SMR wide area licensees, and (2) offer real-time, two-way switched voice service, are interconnected with the public switched network, and utilize an in-network switching facility that enables such CMRS systems to reuse frequencies and accomplish seamless hand-offs of subscriber calls. 47 C.F.R. § 52.21(c).

²⁸⁶ As discussed below, the CMRS LNP requirements for the largest 100 MSAs also require covered CMRS carriers outside the largest 100 MSAs to support roaming by CMRS customers from the largest 100 markets that use ported numbers. See 47 C.F.R. § 52.31(a)(2). Thus, CMRS carriers outside the largest 100 MSAs will be required to make certain LNP-related changes to their networks to support roaming even if they do not receive a request to provide LNP to customers in their home market. These changes, however, are not as extensive as those that would be required to implement LNP for their own customers, or to participate in number pooling.

²⁸⁷ *Notice*, 14 FCC Rcd at 10392.

in the largest 100 MSAs by November 24, 2002.²⁸⁸ Accordingly, we proposed to subject covered CMRS carriers to any thousands-block number pooling requirement that we may adopt for LNP-capable wireline carriers once those CMRS carriers are LNP-capable and sought comment on that proposal.²⁸⁹ We also sought comment on whether there is a need to consider an accelerated LNP-deployment schedule, earlier than the current date of November 24, 2002, for CMRS carriers to address specific number exhaust problems by thousands-block number pooling.²⁹⁰

130. Furthermore, we sought comment on the assertions of CMRS carriers that their participation in thousands-block number pooling would have little impact on number utilization and the assertions of state regulators that the participation of CMRS providers in thousands-block number pooling would enhance the effectiveness of thousands-block number pooling.²⁹¹ We also sought comment on the projections presented by the NANPA concerning the comparative impact on NANP exhaust depending on whether thousands-block number pooling includes CMRS participants.²⁹² If we were to extend thousands-block number pooling requirements to covered CMRS providers, we sought comment on whether these requirements should be limited to specific NPAs or rate centers or whether they should apply to all NPAs located in the largest 100 MSAs.²⁹³ We also sought comment on the potential cost to covered CMRS providers if they are subject to thousands-block number pooling requirements.²⁹⁴ We further sought comment on the timeframe that would be required for implementation of thousands-block number pooling by covered CMRS providers following LNP deployment and on the ability of covered CMRS carriers to participate in decisions regarding thousands-block number pooling administration prior to their development of LNP capability. Moreover, we asked commenters to address whether there are any other technical considerations and administrative issues unique to covered CMRS carriers that could affect the timing of their participation in thousands-block number pooling.²⁹⁵

²⁸⁸ *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3092. See also Cellular Telecommunications Industry Association's Petition for Forbearance From Commercial Mobile Radio Services Number Portability Obligations, WT Docket No. 98-229, *Order on Reconsideration*, FCC 00-47 (rel. Feb. 23, 2000). As with wireline carriers, wireless carriers are required to deploy LNP in the top 100 MSAs only within switches for which they receive specific requests for LNP capability. See Telephone Number Portability, *First Memorandum Opinion and Order and Order on Reconsideration*, 12 FCC Rcd 7236, 7313-14 (1997) (*Telephone Number Portability First Memorandum Opinion and Order on Reconsideration*).

²⁸⁹ *Notice*, 14 FCC Rcd at 10392-93.

²⁹⁰ *Id.*

²⁹¹ *Id.* at 10393-94.

²⁹² *Id.* at 10394.

²⁹³ *Id.* at 10395.

²⁹⁴ *Id.*

²⁹⁵ *Id.*

131. Because it is not certain to what degree the second category of non-LNP-capable carriers, wireline and covered CMRS carriers outside the top 100 MSAs, will be subject to requests to provide LNP in their own markets,²⁹⁶ or when such deployment will occur, we sought comment on the manner in which carriers in this category should be required to participate in any thousands-block number pooling regime we may establish for wireline and CMRS carriers in the largest 100 markets.²⁹⁷ Specifically, we sought comment on whether a carrier in this category that establishes LNP capability based on another carrier's request presumptively should be required to participate in thousands-block number pooling and whether there might be circumstances under which we should impose thousands-block number pooling obligations on carriers even if they have not received a request for LNP from another carrier. We further sought comment on whether implementing the network changes required to support roaming would affect the cost to CMRS carriers of implementing thousands-block number pooling, even if such carriers do not receive a request from a competing carrier to deploy LNP in their home markets.²⁹⁸

132. We sought comment on whether the need for numbering resource optimization warrants the participation in thousands-block number pooling by wireless carriers that are not included in the definition of covered CMRS providers.²⁹⁹ We recognized that extending thousands-block number pooling requirements to these carriers would impose significant costs and burdens that we concluded in the *Telephone Number Portability* proceeding are not warranted for LNP purposes.³⁰⁰ Therefore, we stated our belief that such requirements should not be extended to non-LNP-capable carriers without a substantial showing that their participation in thousands-block number pooling would have significant numbering optimization benefits, otherwise unrealizable, that outweigh those costs.³⁰¹

²⁹⁶ Covered CMRS carriers outside the largest 100 MSAs will be required to deploy LNP at some time in the future only if and when they receive a request from a competing carrier. Under the timetable established by the *CMRS LNP Forbearance Order*, such deployment would not occur before May 22, 2003. See generally, *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3092; see also 47 C.F.R. § 52.31(a)(iv).

²⁹⁷ *Notice*, 14 FCC Rcd at 10396.

²⁹⁸ *Id.* at 10396-97.

²⁹⁹ *Id.*

³⁰⁰ In the *Telephone Number Portability* proceeding, we concluded that these services should not be subject to LNP requirements because LNP implementation by these classes of carriers would have little impact on wireless-wireless or wireless-wireline competition. See *Telephone Number Portability, First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 8352, 8433-38 (1996) (*Telephone Number Portability First Report and Order*); see also *Telephone Number Portability First Memorandum Opinion and Order on Reconsideration*, 12 FCC Rcd at 7236; *Telephone Number Portability, Second Memorandum Opinion and Order on Reconsideration*, 13 FCC Rcd 21204, 21228-31 (1998) (*Telephone Number Portability Second Memorandum Opinion and Order*).

³⁰¹ *Notice*, 14 FCC Rcd at 10397-98.

133. We sought comment on the feasibility of alternative numbering resource optimization methods, such as Direct Inward Dialing (DID) agreements,³⁰² NXX code sharing arrangements,³⁰³ and the Colorado Rural LEC Proposal³⁰⁴ that would enable non-LNP-capable carriers to participate in or approximate the effect of thousands-block number pooling without requiring them to develop LNP capability. Because there may be non-LNP-capable carriers in a market that are unable to use an "alternative" pooling method not based on LNP, we sought establishment of a number allocation method that does not discriminate unduly in favor of either thousands-block number pooling participants or thousands-block number pooling non-participants.³⁰⁵ In particular, we sought comment on how requests for numbering resources should be sequenced by the thousands-block number Pooling Administrator to avoid undue discrimination in favor of either thousands-block number pooling participants or thousands-block number pooling non-participants.³⁰⁶

b. Discussion

134. We adopt the tentative conclusion in the *Notice* that, once covered CMRS carriers are LNP-capable, they should be equally subject to any thousands-block number pooling requirements that we adopt for LNP-capable wireline carriers.³⁰⁷ This means that covered CMRS providers will be required to implement thousands-block number pooling after the forbearance from the LNP requirements expires on November 24, 2002, that other CMRS providers will not be required to implement thousands-block number pooling, and that all restrictions on the implementation of number pooling applicable to LNP-capable carriers) are equally applicable to covered CMRS providers.³⁰⁸ We direct CMRS providers to participate in creating the thousands-

³⁰² *Id.* at 10398-99. Under DID agreements, ILECs set aside blocks of numbers for paging carriers and route calls to the numbers to them through PBX or Centrex trunks.

³⁰³ *Id.* NXX code sharing arrangements are similar to DID agreements, except that they do not involve the use of PBX or Centrex trunks.

³⁰⁴ *Id.* Under the Colorado Rural LEC Proposal, a small LEC could have, for example, only 400 telephone numbers assigned within the 0000-0999 block of an NPA-NXX, but it would have all 10,000 numbers associated with the NXX allocated to it. Since the numbers 1000-9999 associated with NXX would not be assigned, these numbers could be released to the pool administrator for allocation elsewhere in the rate center. The small LEC's switch could be programmed to handle calls from its own subscribers to telephone numbers in the 0000-0999 block that it retains, including vacant number treatment. The switch could also be programmed to direct calls initiated by the small LEC's own subscribers to telephone numbers in the 1000-9999 number block (which contains nine thousand numbers) to an LNP-capable switch, either to obtain the routing information so it could route the call itself, or to have the LNP-capable switch route the call. Calls coming to the LNP-capable switch to numbers that are within the 0000-0999 number block would be sent to the small LEC's switch. Calls to numbers in the 1000-9999 number block would be routed using a query to the LNP database to determine the appropriate LRN.

³⁰⁵ *Notice*, 14 FCC Rcd at 10399.

³⁰⁶ *Id.*

³⁰⁷ *Id.* at 10393.

³⁰⁸ Thus, for example, covered CMRS providers must implement thousands-block number pooling only in switches for which they have received a request for number portability from another carrier.

block pooling architecture so as to be ready to implement pooling as soon as they become LNP-capable,³⁰⁹ and, in the meantime, to further explore non-LNP alternatives to number conservation. Along these lines, as an alternative approach to number optimization, non-LNP-capable carriers will be subject to utilization thresholds to obtain growth codes. When a non-LNP-capable carrier becomes LNP-capable, whether voluntarily or pursuant to the Commission's rules, that carrier will be required to participate in thousands-block number pooling in all pooling areas, and as such will no longer be subject to meeting the utilization threshold for growth codes in those pooling areas.

135. We further find that, as pooling is implemented, non-LNP-capable carriers must continue to be able to obtain the numbering resources they need, despite their inability to participate in thousands-block number pooling. Thus, we require the NANPA to ensure the continued existence of concurrent number allocation mechanisms available to non-LNP-capable carriers and to ensure that numbers are administered in a manner that does not discriminate on the basis of a carrier's LNP-capability status. We also ask further comment in the *Further Notice* on whether covered CMRS carriers should be required to participate in pooling immediately upon expiration of the LNP forbearance period on November 24, 2002, or whether a transition period beyond that date to implement pooling will be necessary and, if so, what the length of that transition period should be.

1. **Impracticability of Thousands-Block Number Pooling for Non-LNP-Capable Carriers**

136. In the *CMRS LNP Forbearance Order*, we granted CMRS providers until November 24, 2002, to implement LNP capability because (1) we determined that the industry needed time to develop and deploy the technology that will allow viable implementation of number portability, including the ability to support seamless nationwide roaming,³¹⁰ and (2) we determined that extending the deadline is consistent with the public interest for competitive reasons because it would give CMRS carriers greater flexibility to complete network buildout, technical upgrades and other improvements which will enhance service and promote competition.³¹¹ We have not been provided with any information on the record in this proceeding that would lead us to conclude that wireless (or wireline) service providers can implement

³⁰⁹ See, e.g., Maine Commission comments at 22; New Hampshire Commission comments at 15.

³¹⁰ Nationwide roaming is a requirement for CMRS LNP-capability. See *Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8440. For CMRS carriers to implement LNP that also supports nationwide roaming, the industry has chosen a method that requires separation of the Mobile Identification Number (MIN), which is used to identify the mobile unit to the carrier's network, from the Mobile Directory Number (MDN), the number that is dialed to reach the mobile unit. Separation of the MIN and MDN, which are associated with a particular carrier and are currently the same for each subscriber of AMPS, CDMA, and TDMA-based carriers, will require significant reprogramming of roaming software and databases. While standards for this separation have been adopted, industry has not yet reached consensus on standards for integration of wireless and wireline LNP. For wireless LNP that also supports nationwide roaming to function properly, all CMRS carriers must separate the MIN and MDN, and at least support the querying capability required for LNP.

³¹¹ *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3104-05.

thousands-block number pooling prior to acquiring LNP capability, as it is number portability that allows a thousand-number block to be assigned to a carrier from an NXX that has been assigned to another carrier, thus permitting the contribution and distribution of thousand number blocks.³¹² Thus, we agree with various CMRS providers that we should not require service providers to participate in thousands-block number pooling prior to these carriers obtaining LNP capability.³¹³

137. Even as we find that carriers need to have implemented LNP prior to being able to participate in thousands-block number pooling, we decline to order covered CMRS service providers to speed up their implementation of LNP solely for the purpose of implementing thousands-block number pooling. There is dispute as to the degree to which CMRS providers' participation in thousands-block number pooling before November 2002 would extend the life of the NANP. It is clear, however, that such a requirement would necessitate substantial effort and expense.³¹⁴ Moreover, requiring CMRS providers to move immediately to thousands-block number pooling may divert them from other important tasks, such as implementing the Commission's requirements concerning CALEA, 911, and LNP itself.³¹⁵ Until CMRS service providers obtain LNP capability under the schedule previously imposed by the Commission, we require them instead to participate in alternative forms of number optimization, such as compliance with utilization thresholds, as discussed earlier.

138. For the same reasons as we have discussed for delaying the implementation of thousands-block number pooling for CMRS providers, we will not require thousands-block number pooling for non-"covered" CMRS providers, such as paging companies. Since they are not required to implement LNP capability, it would be impractical to require them to implement thousands-block number pooling. Further, we will not require wireline carriers who are not LNP-capable to acquire that capability solely to participate in thousands-block number pooling at the present time.

³¹² There are other arrangements, such as Type 1 interconnection arrangements, that may enable wireless service providers to achieve some of the benefits of number pooling, such as obtaining and using numbers in smaller increments, prior to implementing LNP. These types of NXX code sharing arrangements, however, are not true pooling systems. Moreover, the number optimization benefits that may be achieved through Type 1 interconnection arrangements may be quite limited, as generally only one wireless carrier may share any NXX code with the wireline code holder pursuant to such arrangements.

³¹³ See, e.g., CTIA comments at 29; CTIA reply comments at 21-23; PCIA comments at 23-24; PCIA reply comments at 16-17.

³¹⁴ For example, CTIA claims that the life of the NANP is extended, at most, by only one year and eight months if CMRS participation is required before 2003, and criticizes the NANP Exhaust study's claims that inclusion of the CMRS providers in thousands-block number pooling would significantly expand the life of the NANP. On the other hand, Maine relies on both the NANP exhaust study and its own number utilization data to support its contention that CMRS participation in pooling would significantly extend the life of NANP. See CTIA comments at 31-34; Maine Commission comments at 21; CTIA reply comments at 21. See also GTE comments at 50; VoiceStream comments at 29; Omnipoint comments at 31.

³¹⁵ See, e.g., AT&T comments at 46-47; CTIA comments at 21; GTE comments at 51-52.

2. Desirability of Thousands-Block Number Pooling for Covered CMRS Carriers

139. We find that it is in the public interest to require covered CMRS service providers to participate in thousands-block number pooling once they have acquired LNP capability. We agree with the arguments of various state commissions and carriers that, intuitively, a thousands-block pooling plan that includes all LNP-capable carriers would enable a more efficient and equitable conservation of numbers than a plan that excludes certain providers.³¹⁶ Thus, requiring CMRS service providers to participate in thousands-block number pooling once they have acquired LNP capability balances the desire to have as broad a range of thousands-block number pooling participants as possible with the desire to avoid imposing unnecessary costs on covered CMRS providers.

140. We reject the arguments of certain CMRS providers that their participation in thousands-block number pooling will have so minimal an effect on number exhaustion that they ought to be excluded altogether.³¹⁷ These parties rely on the contentions that, in general, the number utilization rates of CMRS providers are higher than equivalent utilization rates of wireline carriers, that CMRS has been characterized by rapid growth and churn, and that CMRS providers typically do not need numbers in every rate center in a service area.³¹⁸ Although there may be truth to these assertions in certain instances, there is also evidence in the record that in many areas, CMRS providers would be able to make significant donations to thousands-block number pools and otherwise meaningfully contribute to the numbering efficiencies to be gained by thousands-block number pooling. For example, a study by the Colorado Numbering Task Force which shows that, in 1997 and 1998, cellular and PCS providers in that state had an average utilization rate of 58%, suggests that, despite this relatively high utilization rate, such carriers held over 1,300,000 numbers that could potentially be made available for thousands-block number pooling.³¹⁹ Moreover, CMRS utilization rates are not uniformly high. For example, the Maine Commission asserts that the wireless utilization rate in that state is only 33%.³²⁰ Finally, we find that there is no reason to exempt CMRS providers, or any other class of

³¹⁶ See, e.g., Colorado Commission comments at 6-7; Maine Commission comments at 21-22; Ohio Commission comments at 30; WinStar comments at 27-30.

³¹⁷ See, e.g., CTIA comments at 26-34; PCIA comments at 24-26; Voice Stream comments at 26. There is some suggestion that CMRS participation in thousands-block number pooling might significantly extend the life of the NANP. See *Notice*, 14 FCC Rcd at 10393-94. (citing the NANP Exhaust Study estimate that if thousands-block number pooling were implemented in 2000 by all wireline, CMRS and paging carriers, the life of NANP would be extended until 2051, compared with 2027 with no CMRS participation). It should be noted, however, that the NANP Exhaust study has been criticized by a number of the parties. See, e.g., CTIA comments at 31-34; Omnipoint comments at 24-27; PCIA comments at 24-25.

³¹⁸ The number of rate centers in which wireless carriers may take numbers can range significantly, depending on geographic area, and the interconnection and billing arrangements they make with local wireline carriers. See generally *Joint Cellular Carriers comments, Addendum (Joint Comments on the NANC Report)*.

³¹⁹ Colorado Commission comments at 7.

³²⁰ Maine Commission comments at 21-22. The Maine Commission further notes that in one rate center, one wireless carrier only used nine of the 20,000 numbers assigned to it. *Id.*

carriers, once LNP-capable, from participation in thousands-block number pooling based on high growth rates. Although thousands-block number pooling constrains carriers to acquire additional numbering resources in smaller increments, it does not limit the quantity of resources that a carrier may obtain, provided it can sufficiently demonstrate need in accordance with the guidelines. For these reasons, we conclude that once CMRS providers become LNP-capable, they should be treated the same as other LNP-capable users of numbering resources, including being required to participate in thousands-block number pooling under the same circumstances.

3. Utilization Threshold for Non-LNP-Capable Carriers

141. Although we decline to require CMRS providers to participate in thousands-block number pooling until they achieve LNP capability, we require all non-LNP-capable carriers, including non-covered CMRS providers, to implement certain alternative number optimization measures so long as they are not LNP-capable. Specifically, we adopt the requirement, suggested by Nextel, and as discussed above, that non-LNP-capable carriers achieve a number utilization threshold before they are eligible to obtain a new growth code.³²¹ To require CMRS providers to meet utilization thresholds where they are not LNP-capable and therefore cannot practically participate in thousands-block number pooling will result in progress toward meeting our number conservation goals despite the lack of thousands-block number pooling by such carriers. Similarly, we will require carriers that are not required ever to become LNP-capable, such as paging companies, to meet utilization thresholds before obtaining growth codes, and as well for all other non-LNP-capable carriers (for example, wireline carriers in areas that do not have LNP-capability).

142. We note here that, at the current time, we will not require carriers participating in thousands-block number pooling to meet a utilization threshold to receive growth codes. Once these carriers begin thousands-block number pooling, they will be required to identify unused or lightly-used thousands blocks within their inventories to be contributed back to the pool.³²² Moreover, thousands-block number pooling carriers will obtain new numbers in thousand number increments, and only when they can demonstrate the requisite MTE forecast.³²³ Together, these aspects of pooling participation should ensure that thousands-block number pooling carriers use numbers efficiently in thousands-block number pooling areas, and we believe it would be unnecessarily burdensome to require them to comply with utilization thresholds in addition. Furthermore, as pointed out by Cincinnati Bell, unless the thresholds are set differently for thousands-block number pooling and non-pooling carriers, thousands-block number pooling carriers may be competitively disadvantaged by utilization thresholds compared with non-pooling carriers. For example, if a pooling carrier can only obtain a thousands-number block when it meets the specified threshold, and a non-pooling carrier is eligible to obtain a full NXX code, the non-pooling carrier may be able to offer service to more customers than the

³²¹ Nextel comments at 20; Nextel reply comments at 8. See *supra* ¶¶ 101-115 regarding our utilization threshold framework for growth codes.

³²² See *infra* ¶¶ 190-91.

³²³ See Thousands Block Pooling Guidelines at § 4.0 and Appendices 3 and 4.

pooling carrier before it must request more numbers.³²⁴ However, as stated earlier, we may revisit the issue of whether to impose utilization threshold requirements on pooling carriers in the future if we find that such thresholds significantly increase number use efficiency.³²⁵

C. Selection of Thousands-Block Number Pooling Administrator

a. Background

143. Section 251(e)(1) of the 1996 Act directs the Commission to “create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis.”³²⁶ Section 251(e)(1) further states that nothing shall preclude the Commission from delegating to state commissions or other entities all or any portion of such jurisdiction.³²⁷ Previously, the incumbent LEC within each geographic area had performed central office code assignment and area code relief functions, and Bell Communications Research (Bellcore) performed other numbering administration functions. As more new entrants entered the telecommunications marketplace, the incumbent LECs’ continued administration of the NANP became unacceptable for competitive reasons. Therefore, in 1995, the Commission directed the NANC to recommend an independent, non-governmental entity that is not closely associated with any particular industry segment to serve as the new NANP administrator.³²⁸

144. On February 20, 1997, the NANC issued a “Requirements Document,” which set forth the desired qualities and attributes of the NANP administrator and the functions that it would be expected to perform.³²⁹ On May 15, 1997, after evaluating bids from five interested parties, the NANC submitted to the Commission its recommendation that Lockheed Martin Communications Industry Services (CIS) be appointed to serve as the NANP administrator. In October 1997, the Commission accepted the recommendation of the NANC and selected Lockheed Martin CIS as the new NANP administrator, noting that it would perform the numbering administration functions previously performed by Bellcore, as well as area code relief

³²⁴ CinBell reply comments at 5.

³²⁵ See *supra* ¶ 103.

³²⁶ 47 U.S.C. § 251(e)(1).

³²⁷ *Id.*

³²⁸ Administration of the North American Numbering Plan, *Report and Order*, 11 FCC Rcd 2588, 2608 (1995) (*NANP Order*). The Commission concluded that the actions taken in the *NANP Order* satisfied the section 251(e)(1) requirement that we create or designate an impartial numbering administrator. See *Local Competition Second Report and Order*, 11 FCC Rcd at 19510. In the *Local Competition Second Report and Order*, we noted that we had required there to be a new, impartial numbering administrator and established the model for how the administrator would be chosen. *Id.* We had thus taken “action necessary to establish regulation” leading to the designation of an impartial number administrator as required by section 251(e)(1). *Id.*

³²⁹ February 20, 1997 NANP Administration Requirements Document at § 1.2. See NEWS Report No. CC 97-8, NANC Seeks Proposals from the Entities Interested in Serving as North American Numbering Plan Administrator (Feb. 20, 1997).

initiation and planning and CO code administration previously performed by the incumbent LECs.³³⁰ Lockheed Martin CIS assumed the NANP administrator functions in February 1998.³³¹ On November 17, 1999, the NANPA functions were transferred to NeuStar which now serves as the NANP administrator.³³²

145. In its role in advising the Commission on numbering issues, the NANC determined that thousands-block number pooling may appropriately be considered a numbering administration function, concluding that the services provided by the NANP administrator should be expanded to include all of the functions of the Pooling Administrator.³³³ With this initial conclusion, the NANC directed the NANPA Oversight Working Group to develop a Thousand Block Pool Administrator Requirements Document with the goal of submitting this document to NeuStar for a response. On January 18, 1999, the NANC submitted this document to NeuStar and requested a response. In February 1999, the thousands-block number pooling Issues Management Group (Pooling IMG) was created within the NANC to assess NeuStar's thousands-block number pooling administration proposal. The Pooling IMG's objective was to complete a proposed Pooling Administrator Requirements Document, negotiate the proposed terms and conditions under which the Pooling Administrator would function, and make a recommendation to the NANC.³³⁴ During the next several months, NeuStar and the Pooling IMG held discussions regarding the proposal.

146. On July 21, 1999, the NANC approved the NANC Steering Committee's recommendation that the NANP administrator be appointed the Pooling Administrator subject to certain terms and conditions.³³⁵ On July 30, 1999, then-NANC Chairman Alan Hasselwander

³³⁰ See Administration of the North American Numbering Plan, *Third Report and Order*, Toll Free Service Access Codes, *Third Report and Order*, 12 FCC Rcd 23040, 23042, 23051-52, 23071-72 (1997) (*NANP Administration Third Report and Order*).

³³¹ Lockheed Martin CIS had assumed the CO code administration functions in the United States under a longer transition timetable. The transition was completed in July 1999.

³³² On December 21, 1998, Lockheed Martin IMS informed the Commission that it had signed an agreement to sell Lockheed Martin CIS, the division that serves as the NANPA, to the management of that division and Warburg, Pincus Equity Partners, L.P., an affiliate of Warburg, Pincus and Company. See Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Service Business from Lockheed Martin Corporation to an Affiliate of the Warburg, Pincus & Co., CC Docket No. 92-237, NSD File No. 98-151, at 1, 5 (Dec. 21, 1998). On November 17, 1999, the Commission approved the transfer of NANPA functions to NeuStar, Inc., which is composed of many of the same personnel employed by the CIS unit. Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Services Business, *Order*, 14 FCC Rcd 19792 (1999). NeuStar also serves as the Local Number Portability Administrator for all eight regions in the United States and Canada, providing NPAC services.

³³³ See NANC Meeting Minutes, March 16-17, 1999, at 14.

³³⁴ See Thousand Block Pooling Administration Issue Management Group, Pooling Administration Report and Recommendation to the North American Numbering Council, Feb. 8, 2000, at 3.

³³⁵ See NANC Meeting Minutes, July 21, 1999, at 25-26.

sent a letter to the Commission recommending that the NANP administrator be the national Pooling Administrator.³³⁶ The NANC had concluded that having a separate entity serve as Pooling Administrator would lead to a more costly and less efficient arrangement, and likely delay the implementation of a thousands-block number pooling rollout. The Pooling IMG presented an updated Thousand Block Pool Administrator Requirements document to the NANC on December 22, 1999, which contained additional requirements for system delivery, performance credits, and provided further explanation regarding the intellectual property rights of the customer.³³⁷ NeuStar submitted a response to the Thousand Block Pool Administrator Requirements Document on January 14, 2000. On February 23, 2000, the NANC recommended to the Commission that NeuStar be selected as the Pooling Administrator.

147. As noted above, several state public utility commissions have been granted the authority to implement interim thousands-block number pooling trials.³³⁸ NeuStar has been selected by these states to serve as the interim Pooling Administrator for the state pooling trials currently in place and some of those that are planned.³³⁹ In the *Notice*, we sought comment on whether the NANP administrator should serve as the Pooling Administrator or whether we should seek competitive bids in response to a request for proposals or requirements, as we did with respect to NANP administration.³⁴⁰

b. Discussion

148. We find that our authority under section 251 (e)(1) of the 1996 Act to designate or create one or more impartial entities to administer telecommunications numbering and to make numbers available on an equitable basis extends to thousands-block number pooling administration. We also conclude that seeking competitive bids in response to a request for a proposal or requirements for thousands-block number pooling administration, as we did with respect to NANP administration, furthers the competitive framework that Congress established in implementing the 1996 Act and is consistent with federal procurement law. We believe that a competitive bid process that is open and fair, and will include the opportunity for participation

³³⁶ See Letter from Alan C. Hasselwander, Chairman, North American Numbering Council, to Lawrence E. Strickling, Chief, Common Carrier Bureau, dated July 30, 1999, available at <<http://www.fcc.gov/ccb/Nanc/para184letter.doc>>.

³³⁷ See Updated Thousands Block Pool Administrator Requirements Document, Dec. 22, 1999, available at <<http://www.fcc.gov/ccb/Nanc/fpa1222.doc>>. The NANC forwarded this item to the Commission on January 10, 2000.

³³⁸ See *California Delegation Order*, 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order*, 14 FCC Rcd at 17510-16; *Maine Delegation Order*, 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order*, 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order*, 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

³³⁹ NeuStar serves as the interim thousands-block number Pooling Administrator in several states delegated thousands-block number pooling authority in 1999.

³⁴⁰ *Notice*, 14 FCC Rcd at 10402; see also *NANP Order* at 2616.

from all interested parties, will ensure the selection of the most qualified, cost-efficient Pooling Administrator.³⁴¹

149. We note that appointing NeuStar, the current NANP administrator, to become the Pooling Administrator was also broadly supported in the comments and the replies to the *Notice*.³⁴² Some commenting parties nonetheless opposed a sole source procurement framework for the selection of a national thousands-block number Pooling Administrator.³⁴³ Telcordia Technologies, Inc. (Telcordia), for example, expressed concern that the Commission would select the current NANP administrator as the Pooling Administrator without providing any opportunity for competition.³⁴⁴ Telcordia further stated that any selection of the Pooling Administrator without holding a fair and open competitive bidding process is inappropriate and unlawful.

150. In contrast, NeuStar alleges that competitive bidding for the thousands-block number Pooling Administrator is not required.³⁴⁵ NeuStar asserts that selection of the Pooling Administrator is more analogous to the designation of an agent and, as such, is governed by the Commission's organic authority as a regulator under the Communications Act, as amended, and not by federal procurement laws.³⁴⁶ In the alternative, NeuStar alleges that even if such procurement requirements were applicable, competition is still not mandated, arguing that the Commission could modify NeuStar's existing NANPA functions to include thousands-block

³⁴¹ Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000, at 5 (explaining that competition will provide the greatest opportunity to diversify numbering administration).

³⁴² See, e.g., Ohio Commission comments at 34; Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 15; Ameritech comments at 49; AT&T comments at 50; PrimeCo comments at 8-9 (stating that using another entity or multiple entities on a state-by-state basis would hinder the timely and competitively neutral allocation of NXX codes);

³⁴³ See Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 9, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 10, 2000. See also WinStar comments at 30-31 (arguing for a competitive bidding process to alleviate neutrality concerns that would arise if the NANPA were selected as the Pooling Administrator).

³⁴⁴ Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000, at 2.

³⁴⁵ Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated February 25, 2000, at 2; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 9, 2000; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 13, 2000.

³⁴⁶ Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated February 25, 2000. We note, however, that in all of the case authorities cited by NeuStar, the government used competitive procedures in selecting the agents at issue. See, e.g., *United States v. Citizens & Southern Nat'l Bank*, 889 F.2d 1067, 1069 (Fed. Cir. 1989) (more than 20 proposals received); *Grisby Brandford & Co. v. A.H. Williams*, 869 F. Supp. 984, 988 (D.D.C. 1994) (11 proposals received); *Saratoga Dev. Corp. v. United States*, 21 F.3d 445, 451 (D.C. Cir. 1994) (7 proposals received); *National Loan Servicecenter v. Department of Housing and Urban Dev.*, GSBGA No. 12193-P, 93-2 B.C.A. (CCH) ¶ 25,853 (March 2, 1993), available at 1993 WL 59339.

number pooling, or award it a new contract on a sole source basis.³⁴⁷ We need not resolve whether competition is required, however, because even if it is not, the Commission is free to select the Pooling Administrator on a competitive basis, as it did in choosing the NANP administrator in 1997. As a general matter, federal law assumes that competitive procedures best serve the public interest, and the arguments presented to us to designate NeuStar on a sole-source basis in this case do not convince us to proceed otherwise. First, the benefits that can be achieved through a competitive process, such as innovative proposals and lower costs, may well counterbalance any benefits of a sole source arrangement. Moreover, it is far from certain that awarding a contract to NeuStar would lead to the expeditious implementation of the thousands-block number polling functions. The *ex parte* communications filed in the record of this proceeding indicate that any such award likely would be challenged by other potential service providers, and, if so, may be subject to automatic stay provisions in federal procurement law or other delay.³⁴⁸ Thus, it is not certain that significant time efficiencies would be obtained. In any event, we believe that completion of a competitive procurement can be accomplished within a reasonable timeframe. NeuStar also believes it is the most qualified provider of pooling administration. To the extent that NeuStar may be better qualified, it will have the opportunity to demonstrate that in the evaluation process. In the interim, however, because of the potential for innovative concepts and cost savings obtained through free and open competition and the fact that designation of NeuStar now as the Pooling Administrator may not lead to more expeditious provision of national pooling administration, and because competitive procedures can be initiated reasonably quickly, we believe that the public interest is best served through a competitive process that is consistent with our pro-competitive, deregulatory national policy and the policy considerations underlying federal laws requiring competition.

151. MCI WorldCom's *ex parte* submission makes similar arguments to NeuStar's, and also alleges that the federal requirement for full and open competition is inapplicable here because the funding for the Pooling Administrator is not of a public nature.³⁴⁹ However, it is clear that even in contracts that do not involve the expenditure of money by the agency, the General Accounting Office will review protests under its authority under the Competition in Contracting Act.³⁵⁰ In any event, based on our conclusion that the public interest is better served through the competitive bidding process, we conclude that the selection of the Pooling Administrator should be done under this framework in this case.

³⁴⁷ Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 9, 2000; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 13, 2000.

³⁴⁸ See Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000; Letter from James J. McCullough, Counsel to Telcordia to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 9, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 10, 2000. See also 31 U.S.C. § 3553 (c)-(d); 4 C.F.R. § 21.6.

³⁴⁹ Letter from Henry G. Hultquist, MCI WorldCom, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 1, 2000, at 6-7.

³⁵⁰ 41 U.S.C. §§ 251 et seq.; 31 U.S.C. §§ 3551 et seq.; see also N&N Travel and Tours, Inc. B-283731, B-283731.2, 99-2 CPD, ¶ 113 (Dec. 21, 1999), available in 1999 WL 1267046.

152. We acknowledge that it may be desirable in the future to link the thousands-block number pooling administration and central office code administration duties to take advantage of any synergies that may exist between these functions. We also acknowledge the efforts of the NANC which has provided an initial proposal of the duties and functions of the Pooling Administrator. However, we recognize that vendor diversity for number administration services may have advantages for the industry and the public. We believe that a competitive bidding process will serve the public interest by helping to ensure the selection of the most qualified Pooling Administrator who can perform the duties in the most cost effective manner.³⁵¹ We conclude, therefore, that based on policy and legal grounds, we will seek competitive bids for a national Pooling Administrator.

153. *Criteria for Competitive Bidding.* We believe that thousands-block number pooling administration would best be performed by a single, non-governmental entity selected by this Commission and, therefore, subject to our oversight, but also separate from this Commission and not closely identified with any particular industry segment. As with NANP administration, we find that it would be very difficult, if not impossible, for a thousands-block number Pooling Administrator closely associated with a particular segment of the telecommunications industry to be impartial, and that even if such an entity were impartial, there could still be the perception that it was not, as a result of such an association.³⁵²

154. We conclude, therefore, that the thousands-block number Pooling Administrator should be a non-governmental entity that is not aligned with any particular telecommunications industry segment.³⁵³ The Pooling Administrator must be fair and impartial. The Pooling Administrator must also meet neutrality criteria similar to that articulated in the *NANP Administration Third Report and Order*: 1) the Pooling Administrator may not be an affiliate³⁵⁴ of any telecommunications service provider as defined in the 1996 Act;³⁵⁵ 2) the Pooling

³⁵¹ See WinStar comments at 30-31.

³⁵² *NANP Order*, 11 FCC Rcd at 2613.

³⁵³ *Id.* at 2609.

³⁵⁴ "Affiliate" is defined as a person who controls, is controlled by, or is under the direct or indirect common control with another person. A person shall be deemed to control another if such person possesses, directly or indirectly; (i) an equity interest by stock, partnership (general or limited) interest, joint venture participation, or member interest in the other person ten percent (10%) or more of the total outstanding equity interests in the other person; or (ii) the power to vote ten percent (10%) or more of the securities (by stock, partnership (general or limited) interest, joint venture participation, or member interest) having ordinary voting power for the election of directors, general partner, or management of such other person; or (iii) the power to direct or cause the direction of the management and policies of such other person, whether through the ownership of or right to vote voting rights attributable to the stock, partnership (general or limited) interest, joint venture participation, or member interest of such other person, by contract (including but not limited to stockholder agreement partnership (general or limited) agreement, joint venture agreement, or operating agreement), or otherwise. See 47 C.F.R. § 52.12(a)(1)(i); see also *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

³⁵⁵ In the *NANP Administration Third Report and Order*, the Commission concluded, based on precedent analyzing the meaning of the term common carrier, that an entity is a telecommunications service provider if it has been authorized to offer services indiscriminately to the public, and is, therefore, providing services on a common (continued....)

Administrator and any affiliate may not issue a majority of its debt to, nor derive a majority of its revenues from any telecommunications service provider;³⁵⁶ and 3) notwithstanding the neutrality criteria set forth in 1) and 2) above, the Pooling Administrator may be determined to be or not to be subject to undue influence by parties with a vested interest in the outcome of numbering administration and activities.³⁵⁷

155. For purposes of the competitive bidding process, technical requirements for a Pooling Administrator must be specified. The NANC has been addressing these significant issues in its role in advising the Commission on numbering. To ensure a competitive process, and within 90 days of release of this *Report and Order*, we direct the NANC, with the active participation of all interested parties, to propose revisions to the existing, proposed thousand-block Pooling Administrator Requirements Document to specify the technical requirements for the Pooling Administrator. In addition, the Commission will release a Public Notice seeking comment on the technical requirements for the Pooling Administrator which it will consider. Finally, we delegate authority to the Commission's Office of the Managing Director, with the assistance of the Common Carrier Bureau and the Commission's Office of General Counsel, to prepare the necessary bidding information and to develop an appropriate evaluation process. Based upon these efforts, the Commission will solicit bids for a national Pooling Administrator to serve until the completion of the current NANP administrator term.

D. Implementation Issues

1. National Framework

156. We believe based on the readiness of thousand block number pooling standards and technical requirements,³⁵⁸ that thousands-block number pooling can be implemented on a national level within nine months of the selection a national thousands-block number Pooling Administrator. In the interim, we will continue to make individual delegations of authority to states seeking to implement thousands-block number pooling trials, subject to the parameters we set forth in our previous orders delegating additional numbering authority to state commissions to the extent that they are consistent with our national pooling framework set forth in this *Report and Order*.³⁵⁹ Although the ultimate goal, to maximize the optimization of the resource, is to implement pools in as many rate centers as possible, we are constrained from implementing

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carrier basis. *NANP Administration Third Report and Order*, 12 FCC Rcd at 23077. See also Universal Service Order Federal-State Joint Board on Universal Service, *Report and Order*, 12 FCC Rcd 8776, 9177 (1997); *National Association of Regulatory Utility Commissioners v. FCC*, 553 F.2d 601, 608 (D.C. Cir. 1976); MTS and WATS Market Structure, Phase I, *Third Report and Order*, 93 FCC 2d 241 (1982).

³⁵⁶ "Majority" is defined to mean greater than 50%, and "debt" is defined to mean stocks, bonds, securities, notes, loans or any other instrument of indebtedness. 47 C.F.R. § 52.12(a)(1)(ii); Requirements Document at § 1.2; see also *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

³⁵⁷ 47 C.F.R. § 52.12(a)(1)(iii); see also *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

³⁵⁸ See *infra* ¶¶ 172-83.

³⁵⁹ See *supra* ¶ 128.