

there is general agreement among commenters that COCUS should be replaced with mandatory reporting requirements that are more comprehensive in nature.

b. Discussion

40. In the *Notice* we tentatively concluded that we should mandate all users of numbering resources to supply the NANPA with forecast and utilization data.⁷⁵ Virtually all commenters agree that mandatory reporting is necessary and state that the current voluntary reporting system is inadequate for tracking numbering use and projecting exhaust.⁷⁶ Many commenters agree that federal rules would ensure that all carriers, regardless of size, will supply forecast and utilization data to the NANPA.⁷⁷ We agree, and therefore mandate that all carriers that receive numbering resources from the NANPA (*i.e.*, code holders), or that receive numbering resources from a Pooling Administrator in thousands blocks (*i.e.*, block holders), report forecast and utilization data to the NANPA. We also require carriers that receive *intermediate numbers* to report forecast and utilization data for such numbers in their inventories to the NANPA to the same extent required for code and block holders. For *intermediate numbers* controlled by non-carriers (such as retailers or unified messaging service providers), the carrier that provides *intermediate numbers* to such entities must report utilization and forecast data to the NANPA for these numbers.

41. Reporting carriers shall report their utilization and forecast data by separate legal entity. Each reporting carrier shall be identified by its Operating Company Number (OCN) on the submission. Furthermore, the NANPA shall not issue new numbering resources to a carrier without an OCN.

42. The National Telephone Cooperative Association (NTCA) is one of the few parties that disagreed with our tentative conclusion regarding mandatory reporting for all carriers, asserting that no reporting requirement should be imposed on small carriers where exhaust is not a problem. In the alternative, it states that, at most, rural carriers should be required only to report changes in utilization, and that these carriers should be able to respond with "no change" where appropriate.⁷⁸ Because effective monitoring of all NANP resources is a necessary step in achieving our optimization goals, we decline to exempt small or rural code or block holders from the mandatory reporting requirement. We do however, authorize rural telephone companies, as defined in the 1996 Act,⁷⁹ to report their historical utilization data at the NXX level rather than at

⁷⁵ *Id.* at 10354.

⁷⁶ North Carolina Commission comments at 6.

⁷⁷ AT&T comments at 19-20.

⁷⁸ NTCA reply comments at 3.

⁷⁹ 47 U.S.C. § 153(37).

the thousand-block level in areas where Local Number Portability (LNP) is not available.⁸⁰ Moreover, we deem it reasonable, as suggested by NTCA, to allow any carrier whose forecast and utilization data have not changed from the previous reporting period to simply re-file the prior submission and indicate that there has been no change since the last reporting, or to report "no change."

2. Collection Procedures

a. Background

43. In the *Notice* we identified several data collection and NANP forecast models that had been proposed by NANPA and various industry members.⁸¹ These models include the AT&T Minimalist model, the U.S West Top-down/Bottom-up Model, and the NANPA's proposed Line Number Utilization Survey (LINUS).⁸² The NANC subsequently recommended a fourth model, the Hybrid, which is a synthesis of the aforementioned models.⁸³ In response to the Common Carrier Bureau's public notice seeking comment on a replacement for the COCUS, commenting parties focused their discussions on the LINUS and the Hybrid models.

44. The Minimalist model uses annual COCUS data, including utilization data, to measure working telephone numbers at the NPA level. The model then forecasts NPA and NANP exhaust using modeling techniques by combining the COCUS and utilization data with extensive forecasts of telephone number growth and projections of new entrant profiles and growth rates. The Top-down/Bottom-up Model involves a two-stage process. The first stage, Top-down analysis, uses historical COCUS data and mathematical modeling to develop initial exhaust forecasts for each area code. Once the NANPA determines that a particular NPA will exhaust within a selected period, the second stage of the model is applied. The second stage involves a Bottom-up analysis, which relies on user input similar to the existing COCUS system, but employs a mechanized data collection process. Both the Minimalist and the Top-Down/Bottom-Up models rely too heavily on modeling and forecasting techniques and not enough on actual data to address our and the state commissions' reporting and data needs. In both cases, the models focus exclusively on exhaust forecasts and, therefore, would not provide the information that we need to meet our number optimization goals.

45. LINUS contemplated the most extensive reporting requirements. It was envisioned to have two reporting components: an historical utilization reporting requirement and

⁸⁰ The 1996 Act defines number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another." 47 U.S.C. § 153(30).

⁸¹ *Notice*, 14 FCC Rcd at 10357-58.

⁸² *Id.*

⁸³ This model was subsequently noticed on July 1, 1999. See Common Carrier Bureau Seeks Comment on the North American Numbering Council Recommendation Concerning Replacement of Central Office Code Utilization Survey, DA 99-1315 (NANC COCUS Recommendation).

a forecasting reporting requirement. The frequency of historical utilization data reporting would depend on the location of the numbering resources. LINUS would require carriers in the top 100 metropolitan statistical areas (MSAs) to report quarterly, while non-rural MSAs outside the 100 largest MSAs would report semi-annually and rural NPAs would report annually. With respect to granularity, data in pooling NPAs would be reported at the thousands-block level and at the NXX level where there is no pooling. Finally, the model contemplated reporting on seven different categories of number use. The forecasting component would require quarterly reporting in the top 100 MSAs and semi-annual reporting elsewhere. Where pooling is implemented, it would require reporting by thousands-block at the rate center level while in other NPAs data would be reported by NXX at the NPA level. All forecast data would be reported electronically with codes broken out as either initial or growth codes. The NANPA envisioned applying multivariate probability density analysis to these data to forecast NPA and NANP exhaust.⁸⁴

46. The Hybrid model, like LINUS, would establish both historical utilization and forecasting requirements. Reporting would depend on where the numbering resources are located and whether the NPA is expected to exhaust in the subsequent five years. In non-pooling NPAs, outside a five-year exhaust window, utilization and forecasting data would be required on at least an annual basis. For NPAs where pooling is implemented, or for NPAs that are projected to exhaust within the next five years, reporting would be semi-annual. The granularity of reporting under the Hybrid model would depend on whether pooling has been ordered in an NPA and whether carriers are required to pool or are exempt from the pooling requirement.⁸⁵ In NPAs where pooling has been implemented, carriers required to pool would report their utilization data at the thousands-block level while carriers exempt from pooling would report at the NXX level. In non-pooling NPAs that are within five-years of exhaust, carriers would report utilization data by NXX at the NPA level, while those outside the exhaust window would report at the NPA level. Under the Hybrid model utilization data would be reported as a single statistic, "telephone numbers unavailable," with service providers retaining the underlying data by telephone number status category for audit purposes or if requested by the NANPA.

47. Forecast data under the Hybrid model would be reported by thousands-block at the rate center level in pooling NPAs for pooling carriers and by NXX for non-pooling carriers. In non-pooling NPAs forecast data would be reported by NXX at the NPA level, regardless of whether it was in the exhaust window. All forecast data would be reported by "initial" and "growth" codes and would be filed electronically.⁸⁶ For the purposes of projecting exhaust, the reported data would be combined with historical data and mathematical modeling, with NPA specific assumptions used to develop the forecasts for NPA exhaust.

⁸⁴ Multivariate probability density analysis is a statistical technique used to make projections based on expected probabilities.

⁸⁵ See NANC COCUS Recommendation Report, June 30, 1999, at 13.

⁸⁶ An initial code is the first NXX code that carriers receive in a rate center. Initial codes are also called "footprint codes." Growth codes are the additional codes that a carrier requests when its existing codes are exhausted.

b. Discussion

48. In their comments, several state commissions indicated support for LINUS because of its quarterly reporting requirement and greater granularity.⁸⁷ These states argued that reporting at this higher level of detail is necessary to monitor numbering use and forecast NANP and NPA exhaust. The Hybrid model has broad support within the industry.⁸⁸ Indeed, as we noted above, the NANC recommended adoption of this model to the Common Carrier Bureau. Several proponents of the Hybrid model, such as Ameritech and GTE, argue that the reduced reporting requirements contemplated by the Hybrid model are fully justified given its intended use. These parties argue that the data needed by the NANPA for predicting NPA and NANP exhaust is significantly less than the data needed for other analyses such as audits. Ameritech explains that reporting necessary to predict NPA exhaust requires aggregate information at frequent intervals while data used for audits requires specific data at more detailed levels upon demand.⁸⁹ Others support adoption of the Hybrid model over LINUS on the basis of cost, although these parties provide no direct cost estimates to support their contentions.⁹⁰

49. We decline to adopt either the LINUS or the Hybrid model as the basis for our mandatory data reporting requirement. We find that reporting for seven categories of use and quarterly reporting, as proposed with the LINUS model, would substantially increase costs to both the carriers and the NANPA without providing commensurate benefits. Our objective is to request the minimal amount of data to enable us to meet the regulatory objectives identified above. We find the detailed and frequent reporting under the LINUS to be unduly burdensome.

50. Although we find some aspects of the Hybrid model, such as semi-annual reporting, to be reasonable, we also decline to adopt it as our reporting model. As described below, we believe that all utilization data should be reported at the thousands-block level.⁹¹ We also find that reporting only the category of "numbers unavailable" will provide insufficient information for the NANPA, states, and this Commission to carry out our numbering administration responsibilities.

51. The data collection procedures we adopt, which shall replace the COCUS model currently being used by the NANPA to collect forecast and utilization data, are detailed below.

⁸⁷ Texas Public Util. Counsel and NASUCA comments at 24; Ohio Commission comments at 12.

⁸⁸ See AT&T comments at 19; AT&T reply comments at 10; Bell Atlantic comments at 11; USTA comments at 5.

⁸⁹ Ameritech comments at 18.

⁹⁰ See PCIA comments at 32; GTE comments at 26. The only cost information regarding the cost of alternative models was provided in the NANC COCUS Recommendation Report. This report contains an analysis by the NANPA of relative cost for each proposed model compared to the cost of COCUS. It estimated that the cost of LINUS was estimated to be 7.5 times the cost of COCUS. The cost of the Hybrid was estimated to be 7 times the cost of COCUS. It was also noted that service providers estimated that the cost of the Hybrid model would be materially less than LINUS. No specific cost estimates were provided. See NANC COCUS Recommendation Report, June 30, 1999, at 32-33.

⁹¹ See *infra* ¶¶ 69-73.

As with the COCUS model, the NANPA shall continue to serve as the single point of contact for collection of forecast and utilization data. The NANPA's neutrality and ongoing interaction with code holders makes it the ideal repository for these data. Moreover, the NANPA is responsible for allocating numbers within the NANP and making forecasts of exhaust, and must rely on this data to carry out these functions.

52. The NANPA shall, within 15 days of the release of this *Report and Order*, develop a reporting form for both utilization and forecast data reporting and submit it both in paper and electronic form to the Common Carrier Bureau for review and submission to the Office of Management and Budget. The form shall incorporate the reporting requirements we establish in this *Report and Order*.⁹² In addition to the utilization and forecast data, the NANPA shall ensure that it has a means of associating each carrier's reported data with carrier identification information. This information shall include: company name, company headquarters address, OCNs, parent company OCN(s), and the primary type of business in which the numbers are being used.

53. The NANPA indicates that the costs of the data collection will be minimized if the data are reported electronically.⁹³ Therefore, we will require all carriers filing data to file electronically. We understand that currently not all carriers will be able to file electronically initially, and that some carriers may have a long-term difficulty establishing electronic filing capability. Nonetheless, we believe that electronic filing is the most efficient and least costly method available. We have had *ex parte* discussions with the NANPA regarding this issue and we have been assured that electronic filing by carriers of all sizes and technical capabilities can be accommodated. The NANPA has contemplated three alternative methods for collecting data. For large and mid-sized carriers, the preferred method of reporting would be an electronic file transfer. The NANPA also believes that it can develop a spreadsheet format that could be used by smaller carriers that only have personal computers. As a second option, the NANPA indicates that it could develop Internet-based online access to the data base. Carriers could, in a secure fashion, use the Internet to log into the NANPA's website and enter their data manually into an electronic version of the reporting form. We note that every carrier that can dial up using an ISP can use this method, and that this method is not any more burdensome on a carrier than paper filing. Finally, as a last resort for very small carriers that do not have access to an ISP, the NANPA is considering permitting them to fax their data submissions and the NANPA would, as an enterprise service, transcribe the data into an electronic format. We direct the NANPA to develop and establish these data entry mechanisms within 45 days of the publication of this *Report and Order* in the Federal Register.

54. The NANPA shall examine each data submission for inconsistencies or anomalies. The NANPA shall work with the NANC to formulate criteria for determining what types of submissions should be deemed inconsistent or anomalous. If the NANPA identifies any significant inconsistencies or anomalies in a carrier's data, the NANPA shall inform the

⁹² See *infra* ¶¶ 53-73.

⁹³ See Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

submitting carrier of its findings, after which the carrier shall have five days to explain the inconsistencies or anomalies, or to resubmit the data. If, after the discussions with a carrier, the NANPA preliminarily concludes that that carrier's data are insufficient, then the NANPA shall report that preliminary conclusion to the commission in the state where the carrier is providing service, and to the Common Carrier Bureau. We delegate to the states the authority to make a determination on the validity of the data and to instruct the carrier on how any deficiencies should be remedied. The NANPA shall assign no additional resources to that carrier until the appropriate state commission has resolved all questions regarding the inconsistency or anomaly.

55. The NANPA shall also continue to compile, examine, and analyze the forecast and utilization data submitted by reporting carriers to carry out its NANP management responsibilities, which includes tracking and reporting on number utilization throughout the United States, and projecting the life of individual NPAs as well as the NANP. This includes, but is not limited to, conducting NPA and NANP exhaust studies, and developing a comprehensive database of NPA-NXXs that identify which numbering resources are being utilized, and which remain in the NANP inventory. We note that the NANPA is required under our rules to protect the confidentiality of proprietary data and competitively sensitive information.⁹⁴ We clarify that this requirement shall apply to electronic data as well.

56. Further, we direct the NANC to consult with the NANPA to develop an estimate of the costs the NANPA will incur to carry out the mandatory reporting requirements and provisions, including, but not limited to, compilation, examination and analysis of such data, as set forth in this *Report and Order*. We request the NANC to submit this cost estimate to the Common Carrier Bureau within 30 days of the release of this *Report and Order*.

3. Data Elements for Forecast Reporting

57. The current COCUS requires each reporting carrier to provide year-by-year, five-year projections of its resource needs. Although no party specifically addressed this issue, we believe that we should formally adopt this reporting requirement in our newly established reporting framework. We find that the five-year forecast mechanism provides the NANPA with sufficient information to make its NANP and NPA forecasts, while at the same time, not burdening carriers. Therefore, we require each carrier to provide a year-by-year, five-year forecast of its expected numbering requirements.

58. *Initial and Growth Codes.* Both the LINUS and the Hybrid models propose that forecast numbering resource requirements be reported in terms of initial and growth codes.⁹⁵ In

⁹⁴ 47 C.F.R. § 52.13(c)(7).

⁹⁵ See NANC COCUS Recommendation Report, June 30, 1999, at 11. As stated above, an "initial" code is the *first* NXX code assigned to the carrier at a new switching entity, point of interconnection (POI) or unique rate center, and the NANPA assigns initial codes to the extent required to terminate traffic at the switch or POI. When an applicant requests more than one NXX code per rate center, switching entity or POI, the first NXX code assigned to that rate center is considered an initial code and all of the other NXX codes are considered growth codes. A "growth" code is an NXX code requested for an established switching entity, POI or rate center when the telephone numbers available for assignment in previously assigned NXX codes will not meet expected demand.

its comments, the NANPA continues to support this proposal,⁹⁶ and no commenting party opposed it. This distinction is important in forecasting NANP exhaust because it permits the NANPA to distinguish between codes that are being requested to establish a footprint from those that are being used to expand service within existing coverage areas. We believe this distinction is consistent with our desire to have as complete a picture as possible of numbering resource use, and therefore require carriers to separate initial from growth codes in their forecasts.

4. Data Elements for Utilization Reporting

59. In the *Notice* we requested comment on the specific data elements that carriers should be required to report.⁹⁷ We sought comment on whether all NXX code holders should be required to report the status of all telephone numbers within the NXX blocks assigned to them (using the numbering status definitions defined in the *Notice*), or whether more aggregated reporting would provide sufficient data to track number utilization accurately.⁹⁸

60. We will require carriers to report five categories of numbers: *assigned, intermediate, reserved, aging, and administrative.*⁹⁹ The need for use-specific data is widely supported by the states and at least some carriers have agreed that uniform reporting of these use categories would be reasonable.¹⁰⁰ We believe that the additional detail provided by reporting on these major uses of numbers will improve the accuracy of the NANPA's projections. In addition, the NANPA's ability to evaluate requests for new NXX blocks will be substantially improved by having detailed information on how numbers are being used. Similarly, the states, which are responsible for area code relief, will benefit from having this specific data to use in monitoring carrier requests for numbering resources.

61. We reject the assertion of several commenters who argue that only highly aggregated data need be reported.¹⁰¹ These commenters generally believe that the exclusive purpose of routine reporting of forecast and utilization data is to predict the exhaust of NPAs and the NANP, so there is no need to collect utilization information by numbering use category. We disagree; these data are especially valuable to identify carriers that are holding excessive inventories of numbers and to facilitate reclamation of those numbers. We also disagree with

⁹⁶ See NANPA comments at 7; Ohio Commission comments at 12.

⁹⁷ *Notice*, 14 FCC Rcd at 10355.

⁹⁸ *Id.*

⁹⁹ Because the sixth category, "available numbers," is a residual category, we will not require carriers to report such numbers.

¹⁰⁰ See Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6. See also Letter from Luisa L. Lancetti, Counsel to AirTouch, to Magalie Roman Salas, FCC, dated February 2, 2000.

¹⁰¹ SBC, for instance, proposes that data reported to the NANPA should consist of the total quantity of *assigned numbers, numbers unavailable for assignment, and numbers available for assignment.* SBC comments at 52. But see Bell Atlantic comments at 10-11 (recommending that carriers should report only *available numbers*).

some of the states that argue that carriers should report on all categories of number utilization to the NANPA.¹⁰² As we previously noted, our goal is to balance the need for data against costs of collecting, providing, and analyzing it, and we find that requiring reporting of only the five major categories listed above properly balances these two concerns.

62. We also adopt specific record-keeping requirements for audit purposes. Although we do not, in this *Report and Order*, set forth auditing requirements, we anticipate doing so in a subsequent order in this docket. We believe that all carriers should maintain detailed internal records of their number usage in categories more granular than the five for which they are required to report not only as a good business practice, but to facilitate auditing by the NANPA and by state commissions in the future.¹⁰³ We therefore require carriers to maintain internal records of their numbering resources for the additional eight subcategories of numbers identified in this *Report and Order*,¹⁰⁴ in addition to the five categories which they must report.¹⁰⁵ Carriers required to track the additional eight subcategories of numbers should maintain this data for a period of not less than five years. We clarify, however, that these additional categories of number usage need not be reported to NANPA at this time. The record does not indicate that the requirement to track the eight subcategories of numbers would be burdensome to rural carriers. But to the extent that non-LNP-capable rural carriers find this record-keeping requirement to be burdensome, we would entertain waiver requests, including joint waiver requests.

5. Frequency of Reporting

63. In our *Notice* we tentatively concluded that carriers should report utilization and forecast data on a quarterly basis, rather than the current annual reporting cycle.¹⁰⁶ We proposed this reporting frequency because the pace of number exhaust has substantially increased in many parts of the country and we believed that annual data would fail to provide an accurate picture of these changes. In establishing a reporting frequency, we sought comment on whether we should differentiate between carriers in high-growth and low-growth NPAs and requested commenters to explain how we should distinguish between them.¹⁰⁷ In the alternative, we sought comments on the possibility of establishing a reporting cycle modeled after the current "Jeopardy COCUS," where an additional round of forecast data collection is required when jeopardy is first declared in an area code.¹⁰⁸ With respect to this alternative, we requested comment on whether such a

¹⁰² Massachusetts Department of Telecommunications and Energy, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

¹⁰³ SBC comments at 52; Bell Atlantic comments at 10-11; Ameritech comments at 18.

¹⁰⁴ The 8 subcategories are: (1) *soft dialtone numbers*; (2) *ported-out numbers*; (3) *dealer number pools*; (4) *test numbers*; (5) *employee/official numbers*; (6) *Local Routing Numbers*; (7) *Temporary Local Directory Numbers*; and (8) *wireless E911 emergency services routing digits/key (ESRD/ESRK) numbers*.

¹⁰⁵ *See infra* ¶ 60.

¹⁰⁶ *Notice*, 14 FCC Rcd at 10356.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

strategy would be sufficient to provide additional utilization and forecast data in high-growth NPAs.¹⁰⁹ Finally, we sought comment on whether there are other appropriate distinctions that should be drawn among carriers with respect to reporting frequency.¹¹⁰

64. As a general matter, more frequent reporting of utilization and forecast data should improve the NANPA's ability to forecast NPA and NANP exhaust, as well as our ability to develop cogent policy with respect to numbering resources. More frequent reporting can also spur carriers into improving their management of numbering resources. The need for more frequent reporting is particularly acute in NPAs where pooling will be implemented because these NPAs, almost by definition, have high demands for numbering resources. The need for more frequent reporting must be balanced, however, against the cost such reporting will impose on the carriers and the NANPA.

65. Although many of the states and some carriers strongly endorse quarterly reporting, we are reluctant to impose this requirement.¹¹¹ The record does not support such frequent reporting at this time given the additional costs quarterly reporting would impose on carriers. We also question whether a quarterly cycle would give the NANPA sufficient time to compile the reported data and analyze it. Therefore, we accept the recommendations of AT&T, GTE, PCIA, the NANC and others, who argue that the maximum number of reports that any carrier should be required to file in any year is two and that, in markets where there is little change in numbering utilization, annual reporting is adequate.¹¹²

66. Many of the carriers responding to our *Notice* proposed that we adopt the frequency scheme contained in the Hybrid model. Under the proposed Hybrid model, carriers operating in NPAs where pooling has been implemented or where jeopardy is projected to occur within the next five years would report semiannually. All other carriers would report annually. The advantage of this requirement is that it removes all subjectivity from the decision of how carriers should report. While this formalistic scheme is theoretically appealing, we are reluctant to adopt it. The problem with this approach is that area code exhaust, at this time, cannot be reliably projected. The NANPA's recent 1999 COCUS and NPA exhaust analysis demonstrates the difficulty in accurately projecting exhaust.¹¹³ The report compares the predicted exhaust date for each active NPA in the United States as of April 1999 and as of December 1999. Between these two dates spanning nine months, the NANPA changed the projected exhaust dates for 70 NPAs by an average of 3.8 years by NPA.¹¹⁴ For each of these NPAs, the NANPA included an

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6; California Commission comments at 11-13; Pennsylvania Commission comments at 12; Pennsylvania Consumer Advocate and NASUCA comments at 5.

¹¹² GTE comments at 27; PCIA reply comments at 32.

¹¹³ NANPA Report to the NANC, prepared by NeuStar, January 18, 2000.

¹¹⁴ *Id.*

explanation for the difference in the exhaust projections. Several times the NANPA cited an increase in the code issuance growth rates that were four or more times higher than those projected just nine months prior to that. This demonstrates that change can happen very quickly. Thus, rules based on projected exhaust time horizons are not sufficient for establishing a reporting frequency.

67. The basic frequency of reporting shall be semi-annually. We, however, delegate to the state commissions the authority to reduce the frequency of reporting for carriers in their states to annually.¹¹⁵ For example, state commissions may find it desirable to decrease the reporting frequency, where an NPA is significantly far from projected exhaust, or where there is very little demand for numbering resources and low growth expectancy because of limited competition or sparse population. State commissions must notify the Common Carrier Bureau and the NANPA prior to exercising this delegated authority. Each carrier shall submit to the NANPA forecast and utilization data on or before February 1, for the period ending on December 31, and on or before August 1, for the period ending on June 30 of each year. Carriers in NPAs where state commissions reduce the filing requirement to an annual reporting shall report on August 1 of each year. All carriers shall file their first report no later than August 1, 2000.

6. Granularity of Reporting

a. Geographic Scope of Reporting

68. In our *Notice* we asked whether we should require carriers to report their forecast and utilization data per NPA or per rate center.¹¹⁶ Commenters were generally split on this question. Several commenters, representing primarily state commissions, supported reporting at the rate center level.¹¹⁷ Carriers, on the other hand, argued that reporting at the NPA level would be adequate except where pooling is taking place.¹¹⁸ NeuStar, the current NANPA, has indicated that, for the purpose of reporting utilization data, carriers need not report the name of the rate center in which the NXX is being used because that information could be obtained from the Local Exchange Routing Guide (LERG).¹¹⁹ To ensure that the reporting requirement is not unduly burdensome, we conclude that reporting data at the NPA level is sufficient for mandatory semi-annual reporting of historical utilization data. For forecast data reporting, we adopt the approach contained in the Hybrid model, which would require non-pooling carriers to report their forecast data at the NPA level and pooling carriers to report their forecast data at the rate center level.

¹¹⁵ Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

¹¹⁶ *Notice*, 14 FCC Rcd at 10355.

¹¹⁷ Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

¹¹⁸ Bell Atlantic comments at 10; Ameritech comments at 20; AT&T comments at 21.

¹¹⁹ See Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

b. Reporting at the NXX Level or Thousands-Block Level

69. In our *Notice*, we stated that we could require numbering utilization data to be reported per full NXX or per thousands block.¹²⁰ We noted the possibility that carriers engaged in pooling might have to report at the thousands-block level while we would permit non-pooling carriers to report at either the NXX level or at the thousands-block level. We asked commenters to discuss the merits of requiring all carriers to report at the thousands-block level, as opposed to requiring carriers to report at the thousands-block level only when that NXX is subject to pooling.¹²¹ We then asked the commenters to compare the benefits of such detailed reporting with its cost.¹²² We also considered letting all carriers report at the NXX level, unless the numbering resources were in one of the largest 100 MSAs or within a jeopardy NPA.¹²³

70. We also recognize that, in areas where LNP is not available, the burden on some small or rural carriers may outweigh the value of such granular reporting data. Therefore, we will permit rural telephone companies, as defined in the Act,¹²⁴ to report their utilization data at the NXX level. All other carriers must report their utilization data at the thousands block level.

71. Some wireline companies oppose uniform thousands-block reporting in favor of a policy of limiting such reporting to regions where thousands-block number pooling has already been implemented.¹²⁵ Similarly, the wireless industry generally objects to uniform thousands-block reporting because wireless carriers can receive numbers only in full NXX blocks, and cannot participate in thousands-block number pooling.¹²⁶ These commenters do not persuade us. As we previously stated, number utilization data will be used for more than simply projecting NPA and NANP exhaust. We believe that thousands-block reporting fits into our general reporting scheme because it provides a level of detail that will permit decision making with respect to issues such as (1) the efficacy of thousands-block number pooling in specific NPAs, (2) identifying thousands blocks available for pooling, and (3) monitoring preservation protocols for protecting uncontaminated thousands-blocks. We note that several state commissions share this view.¹²⁷ In areas where LNP is not available, however, rural carriers tend to use less numbering resources. We therefore exempt rural carriers in non-LNP areas from the requirement

¹²⁰ *Notice*, 14 FCC Rcd at 10355-56.

¹²¹ *Id.* at 10355.

¹²² *Id.* at 10355-56.

¹²³ *Id.* at 10356.

¹²⁴ 47 U.S.C. § 153(37).

¹²⁵ CinBell comments at 8; Ameritech comments at 20; Bell Atlantic comments at 10; GTE comments at 23.

¹²⁶ PCIA comments at 32.

¹²⁷ *See, e.g.*, Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6; Ohio Commission comments at 9; North Carolina Commission comments at 6; California Commission comments at 13-14.

to report their utilization data at the thousands-block level; rural carrier in non-LNP areas will be required to report their utilization data only at the NXX level; and all other carriers must report their utilization data at the thousands-block level.¹²⁸

72. We do not believe that the cost of thousands-block reporting will be significantly higher than reporting at the NXX level if the data are managed electronically. Moreover, no cost estimates were submitted into the record. As noted above, we find that for any reporting system to operate efficiently, all carriers must report electronically. As a consequence, we believe that all or virtually all carriers should use electronic means to track their use of numbering resources. With electronic tracking of numbers, the level of detail contained in reports to the NANPA is largely a matter of the up-front programming effort in designing a tracking system and preparing reports from it. We note that carriers with similar systems could jointly design such a program, and share the cost. This would be especially true for small carriers. Further, we believe that the difference in programming costs between NXX and thousands-block reporting will be small. Yet, we believe the benefits of more detailed information will be substantial. Greater detail will result in better management of the NANPA's resources. Consistent reporting by all carriers may also reduce the NANPA's costs, to the extent that reporting at different levels of aggregation will require the NANPA to design databases and analyses that can accommodate mixed data.

73. For forecast data, we require carriers to develop their forecasts of numbering resource needs based on whether the forecast is for resources in a pooling or non-pooling NPA and whether they will be pooling. In pooling areas, forecast data shall be reported at the thousands-block per rate center level for pooling carriers and at the NXX level per rate center for non-pooling carriers.¹²⁹ In non-pooling areas, forecast data shall be reported at the NXX per NPA level because carriers will receive their resources at this level.

7. State Commissions' Access to Data and Confidentiality of Data

a. Background.

74. In the *Notice*, we sought comment on what, if any, special provisions should be established to protect the confidentiality of data disclosed to the NANPA, the Commission, and state commissions.¹³⁰ We noted that under Exemption 4 of the Freedom of Information Act (FOIA), the Commission need not disclose "commercial or financial information . . . [that is] privileged or confidential."¹³¹ We sought comment on what specific information, based on the

¹²⁸ See *supra* ¶ 42.

¹²⁹ This reporting scheme was supported by the NANC. See NANC COCUS Recommendation at 33-34.

¹³⁰ *Notice*, 14 FCC Rcd at 10356.

¹³¹ See *id.*, see also 5 U.S.C. § 552(b)(4). Under FOIA, the Commission is required to disclose agency records on request, unless they contain information that fits within one or more of the exemptions from the Act. Even when particular information falls within the scope of a FOIA exemption, agencies are generally afforded the discretion to disclose the information on public interest grounds. *Chrysler Corp. v. Brown*, 441 U.S. 281, 292-94 (1979).

proposed reporting requirements, would fall within this exemption.¹³² The NANC recommended that states be given access to aggregate utilization data.¹³³ Also, the NANC recommended that states be allowed to obtain carrier-specific data only when a legally enforceable confidentiality agreement is in place.¹³⁴ We sought comment on the NANC's recommendations concerning use of confidential data by the state commissions.¹³⁵

b. Discussion

75. As the Ohio commission correctly notes, numbering resource management is a cooperative effort between the Commission, states, and the NANPA.¹³⁶ We find that the states have legitimate reasons for obtaining disaggregated, carrier-specific data. The states are responsible for NPA relief decisions and other delegated numbering issues. Such decisions must be based on specific utilization data. We are convinced that state commissions will be better able to meet their obligations with respect to area code relief with the information that we have determined is necessary. Therefore, we grant all states access to the semi-annual reported data, subject to appropriate confidentiality protections as described below. We also find that the Pooling Administrator shall have access to carrier specific data and must protect proprietary and competitively sensitive information from public disclosure.

76. We reject North Carolina's assertion, however, that the states should continue to have the authority to collect additional utilization and forecast data independently of what we are ordering the carriers to report to the NANPA. We will not delegate authority to the states to impose additional regularly scheduled reporting requirements on any carriers. Such independent authority would undermine the purpose of establishing regularly scheduled federal reporting requirements, namely a uniform standard that all carriers could use in their record keeping and reporting activities. We have carefully reviewed the various proposals for reporting and have balanced the need for information against industry and the NANPA costs and have set forth our determinations above. Therefore, in granting states access to the federally ordered reports, we are eliminating the need for states to require carriers to report utilization and forecast data on a regular basis. Thus, we supersede the authority specifically delegated to some states to require such reporting.¹³⁷ We do not intend, however, to supplant independent state authority exercised pursuant to state law unrelated to number administration, but we encourage state commissions to

¹³² Notice, 14 FCC Rcd at 10356.

¹³³ See NANC Meeting Minutes, Nov. 18-19, 1998.

¹³⁴ *Id.* As a sanction, NANC proposes that a state's violation of the confidentiality requirement would be the loss of the prerogative to obtain such data in the future. *Id.*

¹³⁵ Notice, 14 FCC Rcd at 10357.

¹³⁶ Ohio Commission comments at 13.

¹³⁷ See *California Delegation Order*, 14 FCC Rcd at 17497, 17499; *Florida Delegation Order*, 14 FCC Rcd at 17521; *Maine Delegation Order*, 14 FCC Rcd at 16445-46, 16450; *Massachusetts Delegation Order*, 14 FCC Rcd at 17460; *New Hampshire Delegation Order* at ¶¶ 12, 13, 17; *New York Delegation Order*, 14 FCC Rcd at 17478, 17480; *Ohio Delegation Order* at ¶ 16; *Texas Delegation Order* at ¶ 28; *Wisconsin Delegation Order* at ¶¶ 12, 15.

rely on the reporting requirements that we adopt herein. Moreover, we do recognize that from time to time a state may need to audit a specific carrier and will need access to more granular data. Therefore, our prohibition on state-ordered reporting does not apply in instances where states need to gather data for a specific purpose, as long as these data reporting requirements do not become regularly scheduled state-level reporting requirement.

77. Several carriers, including GTE, AT&T, and PCIA, argue for limiting state access to the utilization forecast data.¹³⁸ These parties believe that only aggregate data are necessary to assist the states in their code relief activities.¹³⁹ GTE and PCIA assert that the states need rely only on the NANPA for NANP exhaust and area code relief information.¹⁴⁰ PCIA asserts that, with respect to NPA exhaust, it is the NANPA's responsibility to inform the states of the status of an NPA, and therefore the states have no real need to see carrier-specific data.¹⁴¹ PCIA and AT&T are concerned that the states might publicly disclose these commercially sensitive data.¹⁴² We reject these arguments. These commenters ignore the fact that the states have an important role in managing numbering resources and providing area code relief. As discussed more fully below, we are requiring states that are seeking access to the reported data to explicitly treat data received from the NANPA as confidential.

78. Most commenters generally agree that the number utilization and forecast data submitted by carriers should be treated as confidential and should be protected from public disclosure.¹⁴³ Carriers argue that this data is highly sensitive "commercial information" and would in effect provide competitors access to their business plans and strategies, location of customers, expansion plans and market growth.¹⁴⁴ We agree, and find that disaggregated, carrier-specific forecast and utilization data should be treated as confidential and should be exempt from public disclosure under 5 U.S.C. § 552(b)(4).¹⁴⁵

79. We further agree with commenters that aggregated data (such as each carrier's NPA wide utilization rate and number of NXXs assigned) do not require the type of confidential protections that we adopt here.¹⁴⁶ Aggregated data do not provide competitors with detailed

¹³⁸ AT&T comments at 19; GTE comments at 24; PCIA comments at 31-33.

¹³⁹ GTE comments at 24.

¹⁴⁰ GTE comments at 24; PCIA comments at 33.

¹⁴¹ PCIA comments at 33.

¹⁴² PCIA comments at 33; AT&T comments at 19.

¹⁴³ Nextel comments at 21; RCN comments at 6; Level 3 comments 6; PCIA comments at 32.

¹⁴⁴ GTE comments at 29; Sprint comments at 14-15; Ameritech comments at 20-21; MediaOne comments at 18-19; Connect comments at 7.

¹⁴⁵ See MCI WorldCom comments at 42.

¹⁴⁶ SBC comments at 55; MCI WorldCom comments at 42; GTE comments at 29; AT&T comments at 19; Ameritech comments at 21.

information on the level of a carrier's activity or operational plans in a specific local exchange market.

80. Despite our conclusion that disaggregated utilization and forecast data should be treated as confidential information and should not be publicly disclosed, we also recognize, as do many commenters, that state commissions may require access to this data to effectively carry out number administration duties.¹⁴⁷ In fact, the record indicates that it is not uncommon for state commissions to receive confidential data from carriers,¹⁴⁸ and that some states have already received such data and conducted utilization studies on their own. In seeking to balance this need with confidentiality concerns, some commenters suggest that state commissions receive only aggregate carrier data,¹⁴⁹ rather than data on individual carriers, or that state commissions only receive data where there is a legally enforceable confidentiality agreement in place.¹⁵⁰ As discussed above, we decline to adopt either restriction.

81. We find that the value to state commissions of access to these data outweighs the confidentiality concerns expressed by carriers required to submit forecast and utilization data to the NANPA. We have delegated authority to state commissions to initiate area code relief planning, implement area code relief, adopt NXX rationing in conjunction with area code relief decisions, order voluntary thousands-block number pooling trials, and set aside a certain number of NXX codes for thousands-block number pooling.¹⁵¹ In this *Report and Order*, we delegate additional numbering authority to state commissions to require more efficient management of thousands blocks and to implement mandatory thousands-blocking pooling under certain conditions. We find that their ability to carry out these delegations of authority would be hampered if they are not allowed access to carrier forecast and utilization information. For example, number forecast and utilization data can better enable state commissions to assess when, where, and the type of area code relief measure that should be adopted. Therefore, state commissions shall have access to the disaggregated data submitted to the NANPA, and may choose to request copies directly from carriers, provided that the state commission has

¹⁴⁷ SBC comments at 55; California Commission comments at 15; New Jersey Commission comments at 3; CTIA comments at 15; MCI WorldCom comments at 39; Sprint comments at 14-15.

¹⁴⁸ Maine Commission comments at 11.

¹⁴⁹ PCIA comments at 31.

¹⁵⁰ Choice One comments at 6; RCN comments at 6; Level 3 comments at 7.

¹⁵¹ See Implementation of the Local Competition Provision of the Telecommunications Act of 1996, *Second Report and Order and Memorandum Opinion and Order*, 11 FCC Rcd 19392, 19512, 19516 (1996) (*Local Competition Second Report and Order*); see also *Pennsylvania Numbering Order*, 13 FCC Rcd at 19025, 19027-30. Area code relief refers to the process by which central office codes are made available when there are few or no unassigned central office codes remaining in an existing area code and a new area code is introduced. 47 C.F.R. § 52.19 (a)-(b). Area code relief includes planning for area code "jeopardy," which is a situation in which central office codes may become exhausted before an area code relief plan can be implemented. Several states have also received interim authority to implement certain numbering resource optimization measures (e.g., establish NXX code allocation standards, reclaim unused or underutilized numbering resources, require sequential numbering assignment).

appropriate protections in place (which may include confidentiality agreements or designation of information as proprietary under state law) that would preclude disclosure to any entity other than the NANPA or the Commission. We decline to require a specific mechanism to ensure confidential treatment.

82. Some state commissions have requested access to other information such as carriers' applications for initial or growth numbering resources. Like forecast data, this information reveals commercial information, business plans and strategies, expansion plans, location of customers, and market growth. Consequently, we find that these applications should be deemed confidential. We will not limit a state commission's access to applications for initial or growth numbering resources, but we require the state commissions to treat this data, as well as forecast and utilization data, as confidential. We are aware that there are two states that have "open records" statutes that may prevent the state from providing confidential protection for such sensitive carrier information.¹⁵² In situations such as these, we will work with the state commissions to enable them to obtain access to such information in a manner that addresses the state's need for this information and also protects the confidential nature of the carrier's sensitive information. We also clarify that state commissions must continue to permit the NANPA to process requests for numbering resources in a timely fashion after receipt of such information.

8. Enforcement

83. In our *Notice* we asked parties to comment on various enforcement issues and what actions we should take to enhance the enforceability of numbering utilization and optimization.¹⁵³ Some of the enforcement measures that we discussed included giving the NANPA the authority to withhold numbering resources as a sanction for violating CO Code Assignment Guidelines, especially where the violation involves failure or refusal to supply accurate and complete utilization or forecast data.¹⁵⁴ We sought comment on the tentative conclusion and on the circumstances in which the NANPA should be empowered to withhold numbering resources.¹⁵⁵

84. Although we decline to address all of the enforcement issues raised in the *Notice* at this time, we find it appropriate to address, in light of our imposition of a mandatory reporting requirement, our tentative conclusion that the NANPA should be empowered to withhold numbering resources as a sanction for failure or refusal to comply with any mandatory reporting requirements.¹⁵⁶ We adopt our tentative conclusion and order the NANPA to withhold numbering resources from any U.S. carrier that fails to provide its utilization and forecast

¹⁵² See Texas Government Code, Chapter 552; Georgia Official Code § 50-18-70.

¹⁵³ *Notice*, 14 FCC Rcd at 10362.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ Several commenters recommend this sanction. See, e.g., Bell Atlantic comments at 12; Pennsylvania Consumer Advocate at 5.

information as mandated in this *Report and Order* until such information has been provided. There is broad support for this requirement.¹⁵⁷ If it appears that a carrier has failed to provide the necessary reports, NANPA shall notify the carrier in writing and allow ten days for the carrier to either provide the report or show that it already has done so. We believe that this step is necessary to ensure that the NANPA, states, and we have information from all U.S. carriers to facilitate proper management of the NANP. With respect to non-U.S. carriers participating in the NANP, we request that they voluntarily comply with the reporting requirements that we have established in this *Report and Order*. Although these carriers are not obliged to track and report numbering resource use, we believe that most carriers will support our efforts to ensure that the NANPA has the best and most comprehensive picture of numbering resource use. This will greatly aid in extending the life of the NANP and will help postpone the need for the very costly process of expanding the NANP.

D. Verification of Need for Numbers

a. Background

85. Under the current CO Code Assignment Guidelines, numbering resources are assigned in blocks of 10,000, referred to as central office codes or NXX codes, to entities (code holders) for use at a switching entity or point of interconnection (POI)¹⁵⁸ that they own or control.¹⁵⁹ The NANPA assigns NXX codes pursuant to the assignment criteria specified in the CO Code Assignment Guidelines on a first-come, first-served basis.¹⁶⁰

86. Carriers generally obtain initial codes to establish a commercial presence, or "footprint," in a particular rate center or geographic area. The CO Code Assignment Guidelines require the applicant to certify that it needs an initial code to meet routing, billing, regulatory or tariff requirements.¹⁶¹ The CO Code Assignment Guidelines, however, specify that utilization criteria or projection will not be used to justify an initial NXX code assignment.¹⁶²

87. Under the CO Code Assignment Guidelines, an applicant for a growth code must certify that existing codes associated with that switch, POI, or rate center will exhaust within 12 months, and must submit to the NANPA a Months-to-Exhaust (MTE) Worksheet in order to

¹⁵⁷ Bell Atlantic comments at 12; AT&T comments at 24; CinBell comments at 9; Ohio Commission comments at 14; Wisconsin Commission comments at 4.

¹⁵⁸ The POI is the carrier's physical point of interconnection to the public switched telephone network (PSTN) for the purpose of interchanging traffic on the PSTN.

¹⁵⁹ CO Code Assignment Guidelines at §§ 3.1, 4.1.

¹⁶⁰ *Id.* at § 4.4.

¹⁶¹ *Id.* at § 4.1.3. An applicant may also obtain an initial NXX code in order to establish an initial Location Routing Number (LRN) per POI or switching entity for each Local Access and Transport Area (LATA), if the carrier has no existing resources available for LRN assignment. *Id.* at § 4.1.3.1.

¹⁶² *Id.* at § 4.1.

obtain a growth code.¹⁶³ Growth code applicants are also required to maintain the MTE Worksheet in their files for audit purposes. In jeopardy NPAs, applicants seeking a growth code must certify that existing NXX codes will exhaust within six months.¹⁶⁴

b. Discussion

88. With the advent of local competition and the introduction of new technologies, we have seen an exponential increase in requests for numbering resources. Thus, it has become necessary to adopt policies to ensure that carriers request and receive numbering resources only when and where needed.¹⁶⁵ Unlike the current process, which for the most part requires carriers to “certify” but not prove their need for additional numbering resources, we implement a process that requires carriers to demonstrate that they need numbering resources to provide services. Often numbering resources have been assigned prematurely¹⁶⁶ or used inefficiently.¹⁶⁷ The absence of reliable needs-based verification standards has resulted in numbering resources being distributed to carriers in a less than efficient or optimal manner. State commissions that have been faced with unprecedented demands for NPA relief share our concern over the manner in which numbering resources are being assigned and used.¹⁶⁸

89. The Pennsylvania Commission states that the absence of numbering assignments has allowed carriers to build excessive inventories for which they do not have an immediate need, suggesting that allowing carriers merely to “certify a need” is inadequate.¹⁶⁹ The current self-certification process, according to the Pennsylvania Commission, resulted in two carriers receiving over 100 central office codes (over one million numbers) upon activation of a new area code in Western Pennsylvania; this, in turn, shortened the projected exhaust date for the new area

¹⁶³ *Id.* at § 4.2.1. The CO Code Assignment Certification Worksheet-TN Level MTE Worksheet, set forth in Appendix B to the CO Code Assignment Guidelines, requests data on telephone numbers available for assignment, growth history for the past six months, and projected demand for the coming 12 months. See CO Code Assignment Guidelines at Appendix B n.1.

¹⁶⁴ Jeopardy is defined as a situation where the forecasted and/or actual demand for NXX resources will exceed the known supply during the planning/implementation interval for relief. See CO Code Assignment Guidelines at § 9.3, 13.0. In jeopardy NPAs, the MTE Worksheet requests data on telephone numbers available for assignment, growth history for the past six months, and projected demand for the coming six months. CO Code Assignment Guidelines at § 9.4.4.1.

¹⁶⁵ SBC comments at 42.

¹⁶⁶ For example, numbers have been assigned to carriers considerably before the carrier is prepared to serve customers.

¹⁶⁷ For example, carriers have activated growth codes while a substantial number of unused resources exist within existing NXX codes.

¹⁶⁸ Maine Commission comments at 5-14.

¹⁶⁹ Pennsylvania Commission comments at 8.

code by three years.¹⁷⁰ Other commenters overwhelmingly support some form of “needs-based” requirement for assigning numbering resources.¹⁷¹

90. The current CO Code Assignment Guidelines do not require applicants to demonstrate their readiness to use initial codes, or demonstrate a need in order to obtain growth codes. Although some might suggest that the MTE Worksheet is needs-based, historically it has been primarily based on the carrier’s untested marketing projections. Also, carriers are not held accountable for these forecasts, *i.e.*, there is no penalty for inaccurate or unjustified forecasting. The absence of verifiable proof that a carrier needs numbering resources and is prepared to use them to serve customers may encourage some carriers to obtain numbers that they are unable to use in the near term. This behavior is especially likely in NPAs that are approaching jeopardy, as carriers may be concerned that if they do not obtain an excess supply of numbers, they may not be able to maintain an adequate inventory once jeopardy has been declared.

91. We adopt national verification standards to improve the efficiency with which numbering resources are being allocated and used. Specifically, we adopt a more verifiable needs-based approach for both initial and growth numbering resources that is predicated on proof that carriers need numbering resources when, where, and in the quantity requested. We reject the contentions that assigning numbering resources on the basis of readiness to provide service or need will disproportionately affect new entrants.¹⁷² On the contrary, the needs-based criteria that we adopt for initial and growth numbering resources establish standards by which all carriers, including new market entrants, can obtain the numbering resources that they need.

92. Some commenters suggest that the CO Code Assignment Guidelines adequately address needs-based numbering assignment concerns because they allow for the return of unused numbering resources.¹⁷³ Reclamation procedures alone are inadequate for several reasons. First, they are an “after the fact” solution. We seek to ensure that numbering resources are allocated efficiently in the first instance. Second, the current reclamation process, as discussed in more detail below, has not been consistently enforced. Although we strengthen the reclamation process in this *Report and Order*, it will take some time before unused numbering resources can be identified and reclaimed. We also clarify that once carriers meet the requirements set forth herein for initial and growth numbering resources, the NANPA shall continue to assign numbering resources on a first-come, first served basis, to those carriers that satisfy the necessary requirements. Also, the NANPA should continue to scrutinize applications and appropriately

¹⁷⁰ Pennsylvania Commission comments at 9.

¹⁷¹ Ameritech comments at 14; New York Commission comments at 4-5; AT&T comments at 14; Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 3-5; Maine Commission comments at 5; Bell Atlantic comments at 7; GTE comments at 18; Pennsylvania Commission comments at 5-9; Sprint comments at 9.

¹⁷² Connect comments at 3.

¹⁷³ RCN comments at 2; Nextlink comments at 16; ChoiceOne comments at 4.

address those requests that raise concerns. Currently, the NANPA routinely notifies applicants when a request significantly exceeds historical growth.¹⁷⁴

1. Initial Numbering Resources

a. Background

93. We sought comment on whether applicants should be required to submit evidence with their applications for initial numbering resources that they are licensed or certified to provide service in the area in which they are seeking numbering resources.¹⁷⁵ Alternatively, we sought comment on whether we should place an obligation on the NANPA to check the status of an applicant's license or certification with the relevant state commission prior to issuing the requested initial numbering resources.¹⁷⁶ We further sought comment on whether applicants should be required to make a particular showing regarding the equipment they intend to use to provide service, the state of readiness of their networks or switches, or their progress with their business plan, prior to obtaining initial numbering resources, or whether any other type of showing should be required.¹⁷⁷

b. Discussion

94. The record in this proceeding indicates that some carriers have obtained initial numbering resources for use in areas in which they are not licensed or certified.¹⁷⁸ Sprint also reports that the CO Code Assignment Guidelines' liberal standard for obtaining initial numbering resources allowed two carriers in eastern Massachusetts to obtain over 200 NXX codes that they never used.¹⁷⁹ The Maine commission reports that it discovered instances in which carriers had not received state certification to provide service in areas where they were requesting and receiving numbering resources. Consequently, the Maine commission, in cooperation with the NANPA, is now being notified when a carrier requests numbering resources, and the state commission advises the NANPA when the carrier has not yet been certified.¹⁸⁰ We recognize

¹⁷⁴ NANC NANPA's CO Code Audit Obligations, Progress Report, Audits IMG, August 24, 1999, at Attachment 1.

¹⁷⁵ Notice, 14 FCC Rcd at 10348.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ Maine Commission comments at 5; Pennsylvania Commission comments at 6. The CO Code Assignment Guidelines require that carriers must be certified before they may obtain any NXX codes. CO Code Assignment Guidelines at § 4.1.4. Wireline carriers seeking to provide service in a state must obtain a certificate from the state authorizing them to do so. Fixed wireless carriers may also be subject to state certification requirements, but states are specifically preempted from regulating entry of CMRS providers. See 47 U.S.C. § 332(c)(3)(A). However, all wireless carriers seeking to use spectrum to provide service in particular geographic areas must be licensed in those areas, under Title III of the Communications Act, by the Commission.

¹⁷⁹ Sprint comments at 10.

¹⁸⁰ Maine Commission comments at 5-6.

that all state commissions may not have the resources to review all requests for numbering resources and then notify the NANPA when a carrier is not certified to provide service in their respective states.¹⁸¹ We nonetheless encourage the type of initiative shown by the Maine commission and urge state commissions to continue to work cooperatively with the NANPA to help ensure that numbering resources are not prematurely assigned.

95. Most commenters agree with our tentative conclusion that applications for initial numbering resources should include proof that the applicant is licensed or certified to operate in the area in which it is seeking numbering resources.¹⁸² A few commenters, however, suggest that additional requirements, such as proof of interconnection agreements and physical facilities, are overly burdensome and intrusive.¹⁸³ AT&T recommends that carriers be required to retain such documentation and make it available upon request.¹⁸⁴ Many commenters agree with our tentative conclusion that carriers must demonstrate that they are (or will be) ready to place the numbering resources in service by the activation date indicated in their application.¹⁸⁵ Sprint recommends imposing conditions on initial numbering resources, including documentation of planned services, certification, interconnection, and actual use of numbering resources.¹⁸⁶ PCIA suggests that carriers should be required to certify, pursuant to 47 C.F.R. § 1.16, that they will be ready to use the numbering resources within six months.¹⁸⁷

96. We conclude that allowing carriers to build inventories before they are prepared to offer service results in highly inefficient distribution of numbering resources and is counterproductive to our goal of optimizing the use of numbering resources. Thus, a carrier shall not receive numbering resources if it does not have the appropriate facilities in place, or is unable to demonstrate that it will have them in place, to provide service. To achieve our goal of maximizing the use of numbering resources, we require applications for initial numbering resources to include documented proof that (1) the applicant is authorized to provide service in the area for which the numbering resources are requested and (2) the applicant is or will be capable of providing service within 60 days of the numbering resources activation date.¹⁸⁸

¹⁸¹ Texas Commission comments at 7.

¹⁸² MediaOne comments at 8; CinBell comments at 6; Ameritech comments at 18; North Carolina Commission comments at 5; GTE comments at 18; AT&T comments at 14; Pennsylvania Commission comments at 7.

¹⁸³ ALTS comments at 7, 8; Nextel reply comments at 10-12.

¹⁸⁴ AT&T comments at 14.

¹⁸⁵ SBC comments at 42; Sprint comments at 11-13; Pennsylvania Commission comments at 8; AT&T reply comments at 15-18; Small Business Alliance comments at 5.

¹⁸⁶ Sprint comments at 11-13; Bell Atlantic comments at 7-8.

¹⁸⁷ PCIA comments at 29. Section 1.16 authorizes unsworn declarations, in lieu of an affidavit, provided the declarant indicates that the declaration is true under the penalty of perjury.

¹⁸⁸ See Sprint comments at 10-12; SBC comments at 44; Texas Commission comments at 7.

97. Specifically, carriers must provide, as part of their applications for initial numbering resources, evidence (*e.g.*, state commission order or state certificate to operate as a carrier) demonstrating that they are licensed and/or certified to provide service in the area in which they seek numbering resource. Carriers requesting initial numbering resources must also provide the NANPA appropriate evidence (*e.g.*, contracts for unbundled network elements, network information showing that equipment has been purchased and is operational or will be operational, business plans, or interconnection agreements) that its facilities are in place or will be in place to provide service within 60 days of the numbering resources activation date. The burden is on the carrier to demonstrate that it is both authorized and prepared to provide service before receiving initial numbering resources.¹⁸⁹ These requirements apply equally to carriers requesting an initial NXX code and those requesting an initial thousands-block pursuant to the pooling requirements we establish in this *Report and Order*.

98. We direct the NANPA to withhold initial numbering resources from any carrier that does not comply with these requirements, and to notify the carrier of its decision to withhold numbering resources in writing within ten days of receiving the request. Carriers disputing the NANPA's decision to withhold initial numbering resources upon a finding of noncompliance may appeal the NANPA's decision to the appropriate state commission for resolution. We hereby delegate authority to state commissions to affirm or overturn the NANPA's decision to withhold initial numbering resources based on compliance with the above requirements.

99. We do not intend to circumscribe any carrier's ability to obtain initial numbering resources in order to initiate service. This requirement of additional information from applicants for initial numbering resources is to prevent actual or potential abuses of the number allocation process. In fact, we expect the establishment of these requirements to make more numbering resources available to carriers lawfully authorized by state commissions to provide local service by preventing unauthorized carriers from unlawfully depleting numbering resources.

100. We also clarify that our intent is to allow qualified carriers to seek one initial code or thousands-block for the purpose of establishing a footprint or presence in a particular rate center. If an initial request for numbering resources seeks more than one code or thousands-block, the additional codes or thousands-blocks will be treated as growth codes and must meet the requirements outlined in that section below.

2. Growth Numbering Resources

a. Criteria

101. With respect to carriers' ability to obtain growth numbering resources, we tentatively concluded in the *Notice* that applicants should be required to provide data that support their need to obtain additional numbering resources, as a means of preventing the building up (or "stockpiling") of numbers and carrying of excessive inventories.¹⁹⁰ We further tentatively

¹⁸⁹ See Bell Atlantic comments at 8. See also State of Maine Public Utilities Commission, Investigation into Area Code Relief, Docket No. 98-634, *Procedural Order*, January 5, 2000; SBC comments at 44.

¹⁹⁰ *Notice*, 14 FCC Rcd at 10348.

concluded that the NANPA may not allocate additional numbering resources to an applicant unless the applicant has made a satisfactory demonstration of need.¹⁹¹ Applicants currently complete a MTE Worksheet prior to applying for growth numbering resources and provide the worksheet to the NANPA.¹⁹² We sought comment on whether this process is an adequate demonstration of need for additional numbering resources.¹⁹³ We further sought comment on whether NANPA should be required to evaluate the MTE projection prior to allocating the requested numbering resources.¹⁹⁴ Alternatively, we sought comment on whether applicants should be precluded from requesting growth numbering resources from the NANPA until they have achieved a specified level of numbering utilization (or “fill rate”) in the area in question.¹⁹⁵

102. The MTE Worksheet requires carriers to identify “available” numbering resources by rate center, historical monthly utilization for the preceding six months, and projected monthly utilization for the next twelve months. Although some carriers oppose the imposition of specific utilization thresholds, they generally agree that applications for additional numbering resources should include both historical utilization as well as forecasted growth.¹⁹⁶ Ameritech recommends that applicants for additional numbering resources provide current utilization rates and/or inventory data.¹⁹⁷ MediaOne suggests that a shorter MTE period (e.g., 90 days) should be required in emergency situations as the basis for assigning growth numbering resources.¹⁹⁸

103. The current MTE Worksheet provides limited information by which to evaluate a carrier’s “need” for numbers.¹⁹⁹ To ensure that carriers obtain numbering resources when and where they are needed to provide service, we require carriers to provide evidence that, given their current utilization and recent historical growth, they need additional numbering resources.²⁰⁰ We also require the NANPA to verify carriers’ need. As discussed in more detail below, we adopt a minimum utilization threshold that non-pooling carriers must satisfy before obtaining additional numbering resources. Additionally, we seek comment in a *Further Notice* on the precise level of the utilization threshold. We exempt pooling carriers from this additional utilization threshold requirement in recognition of their requirement to donate to the pool uncontaminated and lightly

¹⁹¹ *Id.* at 10348-49.

¹⁹² *See supra* ¶ 87.

¹⁹³ *Notice*, 14 FCC Rcd at 10349.

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ Bell Atlantic comments at 8; Ameritech comments at 16; AirTouch comments at 19-20; GTE comments at 18.

¹⁹⁷ Ameritech comments at 16.

¹⁹⁸ MediaOne comments at 13.

¹⁹⁹ Maine Commission comments at 5.

²⁰⁰ MCI WorldCom comments at 26.

contaminated thousands-blocks that are not needed to maintain short-term inventory levels.²⁰¹ We may, however, revisit the question of whether all carriers should be subject to meeting a utilization threshold to obtain growth numbering resources if we find that such thresholds significantly increase numbering use efficiency.

104. We find that using the MTE Worksheet as the sole criterion for evaluating need is inadequate, because much of the data cannot be verified until after the carrier has already obtained the requested NXX code.²⁰² Second, the MTE forecast is largely subjective and dependent on good faith projections by each carrier. Further, there is no retrospective accountability to which carriers are held regarding forecasts. To increase the reliability of the MTE projections, we require all non-pooling carriers seeking growth numbering resources to report their utilization level, calculated using the formula below, for the rate center in which they are seeking growth numbering resources with all applications for additional numbering resources.²⁰³ MTE projections must also be filed by rate center. These requirements will provide more reliable, verifiable information to help the NANPA improve efficient distribution of numbering resources and develop more accurate forecasts of both the NANP and individual NPA exhaust.²⁰⁴

105. We require rate center-based utilization to be reported because it more accurately reflects how numbering resources are assigned. NPAs can cover large service areas with widely differing characteristics (*e.g.*, urban, rural).²⁰⁵ Further, rate center-based utilization data may give state commissions additional information on which to evaluate rate center consolidation.²⁰⁶ Moreover, rate center-based utilization allows carriers to obtain numbering resources in response to specific customer demands. For example, some NPAs contain both suburban/rural and urban areas. In such "mixed" NPAs, carriers might have high utilization rates in rate centers located in densely populated areas of the NPA, and lower utilization rates in the more rural or suburban rate centers in the NPA. As a consequence, a carrier may be unable to meet an NPA-wide utilization rate, even when it is running into numbering shortages in particular rate centers in more densely-populated areas.

²⁰¹ See *infra* ¶ 191.

²⁰² Liberty Telecom comments at 4; Ohio Commission comments at 17; Florida Commission comments at 7; Pennsylvania Commission comments at 10.

²⁰³ New York Commission comments at 6. AT&T agrees that if a utilization threshold is adopted that it should be based on rate centers and not NPAs. See AT&T comments at 16.

²⁰⁴ Sprint reports that in Long Island, NY, the industry agreed to a process whereby growth code applications must include six months historical utilization and six months forecast data. If the forecasted monthly demand is within 15% average historical monthly utilization, a central office code will be assigned automatically. If, however, the forecasted demand exceeds 15% historical utilization, the applicant must explain the deviation before a growth code is assigned. Sprint comments at 12.

²⁰⁵ CTIA comments at 9.

²⁰⁶ CTIA comments at 9 n.14.

106. We decline to require different utilization criteria for different market segments, *i.e.*, types of service providers. We do so in order to maintain competitive neutrality in the number assignment process. As competition continues to develop, we are likely to see more market segments converge, making it difficult to distinguish particular market segments. The suggestions that utilization requirements be distinguished by geography are accounted for in our requirement that carriers provide utilization data based on rate centers. The requirements we adopt here do not preclude state commissions from concurrently monitoring utilization using semi-annually reported data.

b. Calculating Utilization Levels

107. We sought comment on how utilization levels should be calculated.²⁰⁷ We proposed that a carrier's utilization level in a given geographic area (NPA or rate center) be calculated by dividing the quantity of "telephone numbers unavailable for assignment"²⁰⁸ (the numerator) by the total quantity of telephone numbers in all NXXs assigned to the carrier within the appropriate geographic area (the denominator), and multiplying the result by 100.²⁰⁹ We expressed concern, however, that certain number status categories, including reserved numbers, numbers allocated to resellers, and numbers in dealer numbering pools, may be used by carriers to stockpile numbers.²¹⁰ That is, carriers may assign NXX codes or portions thereof to these categories, and then count these NXX codes or numbers as being utilized, even when they are not being used to provide any type of service. We noted that the incentive to assign numbers to these categories for such strategic purposes may increase if we move to a number allocation regime based on utilization thresholds.²¹¹ Accordingly, we sought comment on whether these categories of numbers should be excluded from the "numerator," or whether there are other ways to prevent the types of abuses about which we expressed concern.²¹²

108. We recognized that in most cases, newly acquired and activated NXX codes would have lower utilization levels than older, more "mature" NXXs.²¹³ Accordingly, we sought comment on whether applicants should have the option of excluding from their utilization level calculation all NXXs obtained in the period immediately preceding the carrier's request for additional numbering resources (*i.e.*, all "newly acquired" NXXs).²¹⁴ We also sought comment

²⁰⁷ Notice, 14 FCC Rcd at 10350.

²⁰⁸ *Id.*

²⁰⁹ *Id.* The denominator must include all NXX codes assigned, regardless of whether the NXX codes have been activated in the Local Exchange Routing Guide (LERG).

²¹⁰ *Id.*

²¹¹ *Id.*

²¹² *Id.*

²¹³ *Id.*

²¹⁴ *Id.* at 10351. CTIA proposes that utilization thresholds be calculated by looking at data from "mature" NXX codes, which it defines as NXX codes that have been assigned to, and are available for use by, a carrier for at least (continued....)

on whether "newly acquired" NXXs should be defined as those assigned to the applicant by the NANPA during the 90 days prior to the new application, or whether 120 days is a more appropriate period for exclusion.²¹⁵ We proposed that carriers wishing to take advantage of such exclusion must exclude the newly acquired NXXs from both the numerator and the denominator of their utilization level calculation.²¹⁶ Thus, to the extent that a carrier had begun to assign numbers from a newly acquired NXX, the numbers assigned may not be included in the numerator, if the entire NXX were not included in the denominator of the equation. We further sought comment on whether the exclusion of newly acquired NXXs from the utilization level calculation will accommodate wireless carriers' seasonal fluctuations in demand.²¹⁷

109. We note that we have eliminated the category *telephone numbers unavailable for assignment* which we had proposed to adopt in the *Notice*, because we conclude that its use would result in the double counting of certain numbers.²¹⁸ Our definition of *assigned numbers* reflects those numbers that are in use, or will be in use in the short-term, in the PSTN for a specific customer.²¹⁹ This category of number use provides a more accurate representation of numbers used to serve customers, which ultimately furthers our number optimization goals. Other number use categories may become unreasonably inflated and we therefore exclude them from the utilization level calculation. Thus, the utilization level in a given geographic area (NPA or rate center) should be calculated by dividing all *assigned numbers* (numerator) by total numbering resources assigned to that carrier in the appropriate geographic region (denominator), and multiplying the result by 100.

110. We believe that the establishment of a uniform utilization level calculation will allow us, the NANPA, and state commissions to more accurately review and analyze utilization data. Additionally, it will minimize the likelihood that a carrier will retain unneeded numbering resources.²²⁰

111. We define "newly acquired numbers" as those that have been activated within the LERG, and thus are available for assignment, within the preceding 90 days of reporting utilization. Because we are aware that carriers cannot be reasonably expected to achieve significant utilization levels immediately in newly acquired numbering resources, we conclude

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90 days. See CTIA Jan. 28, 1999 Numbering Proposal. See also Cellular Telecommunications Industry Association's Petition for Forbearance from Commercial Mobile Radio Services Number Portability Obligations and Telephone Number Portability, *Memorandum Opinion and Order*, 14 FCC Rcd 3092, 3115-16 (1999) (*CMRS LNP Forbearance Order*).

²¹⁵ *Notice*, 14 FCC Rcd at 10351. See also *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3115-16.

²¹⁶ *Notice*, 14 FCC Rcd at 10351.

²¹⁷ *Id.*

²¹⁸ See *supra* ¶ 14.

²¹⁹ See *supra* ¶¶ 16-17.

²²⁰ See, e.g., Nextel comments at 12.

that newly acquired numbering resources can be excluded from the calculation. Further, excluding newly acquired numbering resources allows carriers to maintain adequate inventories in preparation for specific promotional offerings and accommodates wireless carriers' seasonal fluctuations in demand.²²¹

c. Utilization Threshold

112. We sought comment generally on whether a percentage utilization threshold should be adopted for carriers requesting additional numbering resources, and if so, on the appropriate level for that threshold.²²² We further sought comment on whether we should set a uniform nationwide utilization threshold or, in the alternative, establish a range within which state commissions may set the utilization threshold.²²³ In addition, we sought comment on whether utilization thresholds, if adopted, should be increased gradually over time, in order to provide carriers time to adjust to the new requirements, and to improve their utilization performance over time.²²⁴ We further sought comment on whether the utilization threshold should apply nationwide, or only in areas that are experiencing difficulties with number exhaust, e.g., the largest 100 MSAs and in area codes where a jeopardy condition has been declared.²²⁵ Alternatively, we sought comment on whether the smaller MSAs should have a lower utilization threshold than the largest 100 MSAs.²²⁶

113. ALTS recommends that industry utilization rates be monitored over time before determining whether utilization requirements are necessary.²²⁷ It suggests that if the Commission subsequently determines that utilization thresholds are necessary that they apply only to growth numbering resources and be calculated based on all of a carrier's numbering resources in the rate center. Bell Atlantic recommends establishing utilization thresholds as a substitute for requiring wireless carriers to participate in pooling.²²⁸

114. Regarding the level at which a utilization threshold should be set if adopted, CTIA recommends that a 60% utilization threshold be adopted in jeopardy NPAs, increased annually by 5% to a maximum of 70%.²²⁹ It suggests that the same utilization threshold should

²²¹ AT&T comments at 18.

²²² Notice, 14 FCC Rcd at 10349.

²²³ *Id.* at 10350.

²²⁴ *Id.*

²²⁵ *Id.*

²²⁶ *Id.*

²²⁷ ALTS comments at 12.

²²⁸ Bell Atlantic comments at 8.

²²⁹ CTIA comments at 10.

apply to all carriers.²³⁰ Nextel agrees and further suggests that there should be a higher fill rate for major markets and jeopardy areas than for non-jeopardy areas.²³¹ Time Warner supports establishing a minimum utilization threshold but suggests that the NANC set the initial rate, which could then be adjusted upward as increased efficiencies are obtained.²³² Some commenters suggest that the level of carriers' need for numbering resources may vary widely from one state to another and by rate centers; and, consequently suggest that we adopt an acceptable range and allow state commissions to set target utilization thresholds within that range.²³³

115. We are convinced that requiring carriers not participating in pooling to meet a utilization threshold before they receive a growth code is an equitable way to make sure that carrier requests are needs-based. We therefore adopt a nationwide utilization threshold for non-pooling carriers beginning January 1, 2001. We are less certain, however, at what level the threshold should be set. Parties that commented on a specific utilization rate all suggested thresholds within 60-90% range.²³⁴ We believe, however, that most of the suggested utilization thresholds included in the numerator were based on additional categories besides *assigned numbers*. Additionally, state commissions are in the process of conducting or completing utilization studies for specific NPAs and we hope to examine the results of those studies and learn what actual utilization levels carriers are now achieving. In the attached *Further Notice*, we seek additional comment on what specific utilization threshold should be required.

IV. NUMBER CONSERVATION THROUGH THOUSANDS-BLOCK NUMBER POOLING

A. Requirements for LNP-Capable Carriers: Mandatory Thousands-Block Number Pooling

1. Telephone Number Pooling

a. Background

116. In the *Notice*, we identified as one of the major drivers of exhaust the distribution of numbers in blocks of 10,000.²³⁵ Telephone number pooling addresses this problem by allowing service providers in a given area to receive numbers in blocks smaller than 10,000.²³⁶

²³⁰ CTIA comments at 11.

²³¹ Nextel comments at 10-11.

²³² Time Warner comments at 16-17.

²³³ New York Commission at 7.

²³⁴ CTIA comments at 10; Virginia Commission comments at 4.

²³⁵ *Notice*, 14 FCC Rcd at 10381.

²³⁶ Historically, network routing mechanisms are based upon the understanding that geographic numbers are assigned on an NXX code basis and associated with a specific switch, and, correspondingly, that the network address to which the call is routed is embedded in the first six digits (NPA-NXX) of the called number. Number (continued....)