

First, from a purely consumer protection standpoint, the average telephone subscriber will have no automatic means for determining whether or not a given call will be subject to toll charges. Similarly, a PBX system manager will be forced to implement a complex screening arrangement for individual toll central office codes, and to maintain and update that screening table as new codes are introduced within the local calling area, which may involve multiple NPAs.³⁴ Moreover, where an organization maintains multiple PBXs serving multiple sites located in different exchanges, a separate screening list must be defined and maintained for each such switch, because the local calling area for each exchange will likely be different. Many PBXs simply lack the physical capability to perform such detailed screening, either because of fundamental limitations in their processors and/or memory, or in the software that controls the logic of the switch. Many older PBXs that are providing fully satisfactory service for their owners may simply be incapable of being adapted or upgraded to perform this type of screening function, and even some newer machines may have been manufacturer discontinued and hence will have no software updates available at any price. Even where a machine can be upgraded to accommodate the new dialing patterns, such modifications may be costly.

To make matters even more complicated, it is not at all clear that whatever dialing pattern(s) is(are) ultimately adopted, there will be any more uniformity after 1995 than there

^{34/} The introduction of new CO codes has been occurring with greater frequency in recent years, and (once the additional INPA codes become available) the rate of introduction is likely to increase. Since the beginning of 1991, some 2700 new NPA-NXX codes have been defined in nine new NPAs.

is today. As previously mentioned, US West recently announced that it would adopt an 11-digit format on all toll calls, such that toll calls within the home NPA would be dialed by the pattern 1-HNPA-NXX-XXXX.³⁵ It is not clear what dialing pattern US West will require on inter-NPA local calls. Bell Atlantic, by contrast, has indicated its intention to eliminate the 1+ prefix on all home NPA calls, thereby making local and toll calls indistinguishable from one another. And NYNEX will require 7-digit dialing on HNPA DDD calls, but will require 11-digit dialing on home NPA operator assisted (0+) calls (0-HNPA-NXX-XXXX).

In fact, it may be possible to retain the 1+ prefix on toll calls and to exclude it on all local calls, even those which cross an NPA boundary, but to do so would require, at the minimum, a central directive that must necessarily be subject to monitoring and enforcement, conditions that would seem to require some form of direct FCC involvement.

The present dialing pattern for Washington, DC demonstrates the fundamental feasibility of such an approach. The key to this arrangement is not to assign as CO codes the same sequence of digits associated with either the home or any adjacent NPA codes for which local rate treatment applies, and to require that all toll calls placed within the Home NPA be dialed on an 11-digit (1-HNPA-NXX-XXXX) basis.³⁶ Thus, as long as the 202, 703 and 301

35/ Telecommunications Reports, October 26, 1992, p. 25.

36/ Assignment of a nearby NPA code to a CO code is expressly discouraged so as to minimize the incidence of mis-dialed calls. See, Bellcore, BOC Notes on the LEC Networks - 1990,
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codes are never used as CO codes within the Washington, DC metropolitan area, stored program control central offices can readily identify calls to these NPAs as local inter-NPA calls without the need for a prefix '1'.³⁷ While the C&P Telephone Company has adopted this dialing pattern for the present time, it is not a recognized approach within the Bellcore NANP standard, and may well be abandoned by C&P in its implementation of INPA. Yet because decisions as to the efficacy of any particular local dialing pattern are generally addressed solely at the state PUC level, the potential usefulness of this approach, which would permit full and unambiguous retention of the 1+ prefix as an

36/(...continued)

p. 3.8. Nevertheless, the Ad Hoc Committee has identified a total of six (6) situations out of the more than 48,000 NPA-NXX codes presently in use within the NANP in which a home or adjacent NPA is used as a CO code. These are confined to three New York City codes (212-516, 718-718 and 718-917) and three Los Angeles codes (213-714, 818-818 and 818-909). Indeed, the presence of the '818-818' code pair poses a particular problem, in that it potentially creates an ambiguity on intra-NPA 0+ calls, which require the full 11-digit dialing pattern. ('718-718' is not a problem in this regard only because there are no toll routes within the '718' NPA, although a 0+ call would still likely require the full 11 digits.) That cases such as these are present at all testifies to the serious mismanagement of the NANP under the Bellcore/LEC stewardship. In any event, these few codes can be reclaimed, and the impact upon the users of these six relatively new CO codes would be minimal by comparison with the benefit for all NANP users that would result from a uniform and coordinated toll/local identifier. Clearly this is the type of question that must be addressed and resolved as part of the NANP administration function. To the extent that the Commission may want to pursue this concept in some way, it should recommend an immediate, voluntary moratorium on LEC assignment of potentially conflicting codes in multi-NPA local calling areas.

37/ Thus, when a Washington, DC customer dials 408 without a 1+ prefix, the central office will interpret that as a local CO code. But when the customer dials 703 without a 1+ prefix, the central office will interpret that code as the NPA for northern Virginia.

exclusive toll access digit, has never been formally considered as part of a national standard.

This approach would not only alleviate many of the operational concerns engendered by the implementation of interchangeable NPA codes, it would actually simplify the existing PBX administrative function. Under the present 1+NPA requirement that exists even for local calls in a number of areas (e.g., New York, Chicago, Los Angeles), the PBX must screen for local '1-NPA-NXX' sequences and pass such calls even where the prefix '1' had been dialed. Under the approach the Ad Hoc Committee is proposing, toll calls would always require a prefix '1', and local calls would never require a prefix '1', even where the call is directed to a different NPA. The following table summarizes all possible combinations of local and toll, intra- and inter-NPA call dialing patterns under this scheme:

Local call, home NPA	7 digits	NXX-XXXX
Local call, foreign NPA	10 digits	FNPA-NXX-XXXX
Toll call, home NPA	11 digits	1-HNPA-NXX-XXXX
Toll call, foreign NPA	11 digits	1-FNPA-NXX-XXXX

where HNPA = 3-digit code for Home NPA;;
 FNPA = 3-digit code for Foreign NPA.

It is, of course, possible for individual LECs and state PUCs to adopt this type of dialing pattern, but unless it is implemented uniformly and nationally the larger consumer protection and end user system management concerns will go unaddressed. The only

means for achieving a full and uniform national standard is to bring the NANP administration process under a single, centralized administrator.

III.3. National coordination of fragmented and often unregulated number assignment and dialing pattern decisions is critical for consistent NANP evolution.

The foregoing discussion demonstrates (a) that the present condition of NANP administration is far too fragmented and unsupervised to provide effective and nondiscriminatory management of this essential resource, and (b) that centralized, coordinated administration of the NANP, both with respect to NPA and CO code assignment, can produce significant benefits for all users of the numbering system.

The revolutionary changes in national telecommunications policy clearly have never been adequately reflected in the administration and assignment of telephone numbers. When the NANP was first created, US policy conferred virtually all responsibility for construction, management and operation of the nation's common carrier telecommunications resources upon one corporation, AT&T, and it was perfectly reasonable for AT&T to be given responsibility for and authority over its numbering plan. However, the proliferation of entities with involvement in the telecommunications industry, and the persistence of conflicts in the interests of the Regional Bell Operating Companies, who, through Bellcore, administer the NANP, and the various — and numerous — other parties who require access to number resources, mandates that the future management and administration of the

NANP similarly reflect this fundamental change in the complexion of the US telecommunications marketplace.

Overall management of the NANP should be shifted to a disinterested, yet fully qualified neutral party who is capable of making and enforcing key structural decisions while at the same time is sufficiently accessible and flexible to meet the ever-changing needs of an evolving industry environment. Bellcore should no longer serve as NANPA, and the revised administrative structure of the NANP should be extended to embrace, in addition to NPA assignment, such issues as CO code assignment within individual geographic NPAs, and standard, nationally uniform dialing patterns for inter- and intra-NPA local and toll calling. In addition, the new NANP administration should promulgate rules and regulations, employing essentially the same type of rulemaking process as is used by the FCC, to establish standards and practices with respect to non-geographic Service Access Codes (SACs), special application-specific CO code reservations,³⁸ and uniform application procedures for the handling of requests for modifications to NANP standards (e.g., the 'N11' issue) or special reservations of any NANP code sequence or type.³⁹ The new NANP administrator should also be responsible for establishing reliable estimates of all of the

38/ For example, the potential entry of competitive Directory Assistance providers may require that the current use of the '555' CO code be modified to accommodate multiple DA services.

39/ Bellcore has proposed that 80 of the new interchangeable NPA codes, having a common middle digit, be reserved for personal communications service (PCS) applications. NANPA's Proposal for the Future of Numbering in World Zone 1, Bellcore IL-92/01-013, issued January 6, 1992.

costs associated with any particular numbering issue or policy, and for determining the manner by which such costs (irrespective of where they are incurred) will be spread across all affected parties.

The Ad Hoc Committee believes that several alternative approaches to NANP administration should be considered by the Commission. These include (if an appropriate legal basis exists) formal federal preemption and FCC management of the NANP; a joint FCC/NARUC administration; or the establishment of a separate, non-government administrative body managed by a board of directors with representation from, and funded by, all industry participants.

The administration of the NANP is in many important respects analogous to other standards-setting functions some of which currently fall within the purview of the FCC. Examples include the management of the radio spectrum, the establishment of various communications standards and protocols, such as High-Definition Television (HDTV), and certification and type acceptance of telephone and broadcast equipment. With respect to spectrum management in particular, the Commission has over a half-century of experience, and its practices and processes may provide a useful prototype for designing a new NANP administration. At the same time, with the introduction of some 640 new NPAs in 1995, the NANP is not likely to run out of number capacity for quite some time,⁴⁰ so the finiteness of the radio

^{40/} The expanded NANP can theoretically support some 6-billion unique 10-digit telephone numbers, or roughly 20 such
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spectrum is not directly mirrored to the same extent in the numbering system. But, like radio frequencies, certain numbers may be or may become more "valuable" than others, and the potential clearly exists for trafficking in such numbers to develop. Effective management of number resources can minimize that potential by assuring maximum availability of numbers to meet all appropriate and reasonable demands.

The FCC has long involved itself in establishing broadcast and other standards to assure full compatibility among all broadcast stations and receivers for a particular type of service. In the 1950s, the Commission considered several Color Television standards, and ultimately adopted one for implementation in the US. More recently, the Commission has decided among competing HDTV standards and has resolved the issue of stereo AM radio broadcasting. These processes involve extensive coordination with a variety of industry interests. In the recent HDTV matter, the Commission essentially managed a settlement process that took place among principal industry members, serving more in a capacity of arbitrator than that of decisionmaker by expressing its readiness and willingness to resolve disputes while at the same time encouraging the participants to achieve their own resolution and consensus. Such "Alternative Dispute Resolution" ("ADR") approaches may well merit further examination here, but cannot be considered without a firm FCC commitment to take control of the NANPA function.

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numbers for every man, woman and child living within the NANP region.

The federal role in spectrum management and broadcast standard-setting is fairly obvious, since radio waves do not stop at state lines. As we have suggested here, the federal role in NANP management is also clear, since unilateral actions by individual LECs and/or state commissions can and does create confusion and engender serious operational concerns and costs. However, state PUCs have traditionally had full regulatory authority over "local" telephone service, and that role must continue to be respected in the context of NANP administration. Supervision and management of telephone number resources clearly calls for a national policy moreso than a federal policy. If the state commissions can, through the NARUC, work collectively and cooperatively with each other and with the FCC to establish and to administer a national NANP function, then NARUC may well be the logical place for this activity to be housed.

III.3.1. Goals of an effective NANP Administration

The Ad Hoc Committee believes that the central goals of NANP administration should be (1) uniformity, (2) consistency, (3) neutrality, (4) flexibility to meet changing industry needs, and (5) efficiency and economy for all affected parties. It is apparent than Bellcore is not now and cannot in the future be expected to satisfy these objectives. NANP administration requires wider industry involvement and regulatory oversight. The basic principles and rules for NANP administration must be established at the regulatory level. The ongoing administration

of the NANP can be carried out either at the federal level or through a federal-state body, perhaps affiliated with NARUC.⁴¹

The Ad Hoc Committee urges the FCC to adopt a Notice of Proposed Rule Making (NPRM) that will firmly establish both the administrative structure and the framework for the NANP administrative process and practice. Further, the Committee believes that the formidable burdens and potential costs associated with implementation of interchangeable NPA codes requires immediate action on the Commission's part. If the new NANP structure is to be implemented in early 1995, then users and other non-LEC entities must take steps now to prepare for the changes. Adoption of the simplified, uniform dialing pattern which the Committee has described here will enormously simplify that implementation, but will not result in avoided implementation costs and burdens unless the telecommunications community is given adequate notice that it will not be forced to adopt the more costly measures that are called for under the Bellcore specification.

^{41/} Although the Ad Hoc Committee is not proposing a specific NANP administration scheme at this time, it will review the initial comments of other parties to this NOI and may comment further in the reply round.

IV. PHASE II - FEATURE GROUP D ACCESS

IV.1. In considering the efficacy of the proposed '101XXXX' Feature Group D dialing pattern, the Commission should carefully examine the relative merits of this and of alternative methods of expanding the availability of Carrier Identification Codes.

In Phase II of the NOI, the Commission seeks comments on the current Bellcore plan to modify the Feature Group D carrier access dialing pattern from its present 5-digit '10XXX' format to a 7-digit '101XXXX' format. The Commission explains that:

Beginning in 1993, carriers will have different codes for Feature Group B (FGB) and Feature Group D (FGD) access. At that same time, FGB codes will be expanded to 4 digits. The change to 4-digit FGB codes is relatively simple and inexpensive. The expansion of FGD codes is more complex. In fact, the format agreed upon for implementation in 1995 would replace 10XXX dialing with 101XXXX. This would require dialing extra digits, require carriers to retrain their customers and, according to commenters, will be technically difficult and expensive. It would also result in the access code having the same number of digits as other local telephone numbers. This raises the question of whether special access codes remain worthwhile if they are no shorter than other seven digit numbers.⁴²

The Commission raises four specific questions regarding this proposal:⁴³

1. What are the costs and technical issues associated with converting FGD CIC codes to a 4-digit format?
2. What are the benefits of doing so and how do these benefits compare with the costs?
3. Are there alternative technical approaches that would allow all long distance carriers and other end users to achieve equal access?

42/ NOI, para. 37, footnote omitted.

43/ NOI, para. 38, footnote omitted.

4. If FGD codes are not expanded, what rules should govern the assignment, recall, transfer and use of the FGD codes that will be available?

Like the NOI itself, the Ad Hoc Committee recognizes the legitimate concerns associated with both of these alternatives. Accordingly, the Committee does not offer a specific opinion on this issue at this time. The Committee will review the initial comments of other parties on this subject and, if additional information regarding costs and implementation details is forthcoming, may offer a specific recommendation in its Reply.

Nevertheless, the Committee can offer several observations at this time that the Commission should consider in deciding upon the efficacy of the 101XXXX proposal.

1. The Ad Hoc Committee cannot emphasize strongly enough the importance of an accurate estimate of the costs associated with the FGD code expansion proposal. It is essential that the Commission not accept LEC cost estimates for other changes, such as the proposed implementation of 101XXXX, at their face value. At the very least, such estimates should not be relied upon as a basis for decisionmaking unless the LECs offering such data can be and are held fully accountable for their estimates.

Moreover, the Commission should recognize and consider the costs that will necessarily be incurred by entities other than LECs for switch reprogramming and user education to accommodate the new expanded FGD dialing pattern.

2. The obvious benefit of an expanded FGD format is that an additional 9,000 FGD CICs can be accommodated. While nearly all of the available 3-digit CICs have been assigned, it is not known how - or even if - all are in actual and active use. Before embarking upon a potentially costly code expansion and dialing modification program, the Commission should develop additional data regarding the actual use of these codes.

3. While the NOI correctly notes that both the 101XXXX (FGD) and 950XXXX (FGB) formats require 7 digits, the two are not otherwise equivalent. FGD offers certain additional features that are not generally available with FGB. The two most obvious are presubscription and automatic number identification (ANI). If some other method can be found to provide one or both of these capabilities with 4-digit CICs but without the 101XXXX non-presubscribed access, it should be explored and afforded careful consideration.

4. As noted in item (2) above, the Ad Hoc Committee believes that additional information is required as to the actual utilization of assigned CICs. While the Committee would oppose a policy of reclaiming such codes from bona fide users, it would not object to reclamation of codes that are not in general or active use. It is also possible that a number of 3-digit CICs are assigned to entities that only use FGB, in which event the code could be exchanged for a 4-digit code, possibly with some compensation to the entity involved. This would free up the 3-digit code for use by an

FGD user and may possibly obviate the need for expanding the FGD dial access arrangement.

CONCLUSION

The Ad Hoc Committee recognizes that in the present Notice the Commission has embarked upon a limited examination of NANP issues. In these Comments, the Committee has identified numerous and serious concerns as to the present and future structure of the NANP. It is certainly possible that the Committee's concerns may be addressed and adequately remedied if, as and when the Commission establishes new administrative mechanisms and appoints a new NANP Administrator with no ties to any particular industry segments.

Timely action on the future of the NANP is critical. The forthcoming expansion of the system to permit interchangeable NPA codes is little more than two years away, and unless the various ramifications and impacts of this event are addressed and resolved within the next six to nine months, end users, carriers and other industry participants will be forced to expend effort and resources to accommodate the "worst case" outcome which, at the moment, appears to be the scheme adopted by Bellcore.

Accordingly, the Ad Hoc Committee urges the Commission to act quickly and decisively to establish a new NANPA and to provide it with a sufficient mandate and machinery to quickly address and resolve the various critical time-sensitive issues that affect the entire NANP community.

Respectfully submitted,

AD HOC TELECOMMUNICATIONS
USERS COMMITTEE

Economic Consultant:

Dr. Lee L. Selwyn
Economics and Technology, Inc.
One Washington Mall
Boston, Mass. 02108

(617) 227-0900



James S. Blaszak, Esq.
Gardner, Carton & Douglas
1301 K Street, NW
Washington, DC 20005

(202) 408-7100

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