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Bellcore Letter

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IL-91/05-028	Information	5/13/91

Title	Project Number(s)
Integration of Public non-LEC ISDNs into the North American Numbering Plan	422402

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To:
Recipients of North American Numbering Plan Information.

Entitled Companies
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From:
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Abstract

This Information Letter informs the industry of the North American Numbering Plan (NANP) administrator's position on the long-standing issue of public non-LEC ISDN integration into the NANP. This position is issued in response to industry requests and in light of the recent inability of Standards Committee T1 to resolve the issue through its consensus process.

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OVERVIEW STATEMENT

There has been no telecommunications industry consensus on North American Numbering Plan (NANP) principles or assignment guidelines/criteria for the short-term integration of public non-LEC ISDNs into the 10-digit format of the NANP, or to modify the NANP to identify destination ISDNs. The lack of consensus is evident in the 4 years of inconclusive discussion under the auspices of Committee T1, including two years of ISDN Numbering Forum (INF) meetings. Absent industry consensus to modify the NANP principles, it is the North American Numbering Plan administrator's (NANPA) conclusion that those numbering resources currently allocated to non-LECs, i.e., line numbers in existing geographic codes, be utilized for the short-term integration of public non-LEC ISDNs into the NANP.

The NANPA has initiated a key project to develop a numbering plan proposal for the future evolution of the NANP. We anticipate that this proposal will offer a resolution to the issue of long-term public non-LEC ISDN integration into the NANP.

ISSUE HISTORY

In June of 1986, T1D1 (now T1S1) reached "consensus that public ISDNs be integrated into the 10-digit format of the North American Numbering Plan (NANP)" and requested "the administrator of the NANP, by consensus in an open industry forum, to recommend the appropriate method(s) of integration." Bellcore, as the NANP Administrator, sponsored five meetings (in both the United States and Canada) of the ISDN Numbering Forum (INF) in response to the T1D1 request.

On October 19, 1987, Bellcore informed the industry, in a letter to the T1D1 Chairman, that "In Bellcore's view, consensus on a plan for the interim period is not achievable in a reasonable timeframe." Subsequently,

Letter Number	Type	Date	Page
IL-91/05-028	Information	5/13/91	2

Title	Project Number(s)
Integration of Public non-LEC ISDNs into the North American Numbering Plan	422402

in a December 21, 1987 letter to the T1D1 Chairman, Bellcore informed the industry that "There are at present too many uncertainties to focus on any one detailed recommendation directed to the long-term [integration]."

The NANPA submitted a contribution (T1AG/88-104, August 2, 1988) to Committee T1, identifying and requesting T1 to address, "...a technical/standards issue that requires resolution for the industry to reach consensus on the method of integrating public, non-LEC ISDNs into the North American Numbering Plan (NANP)." The specific issue was to determine the length of the National Destination Code (NDC) for the identification of, and routing to, destination public non-LEC ISDNs. The issue was assigned to the T1S1.4 Working Group for discussion. Discussion continued through the February 1990 meeting of the Working Group. In a June 7, 1990 letter to the NANPA, Mr. Ivor N. Knight - Chairman, Committee T1, stated that "On your issue of which digits in the NANP shall identify a particular destination public non-LEC ISDN, Committee T1 through its consensus process, has been unable to provide a specific answer" and "This letter ... provides the final T1 input to you in response to your contribution T1AG/88-104."

ISSUE ANALYSIS

In analyzing the issue of public non-LEC ISDN integration into the NANP, multiple potential solutions were identified, some of which would require modification of existing NANP principles, architecture, and/or assignment criteria. When such modifications are considered, it is incumbent upon the NANPA to seek answers to specific questions:

1. Is the proposed modification a technical standards issue? If "yes", then the participation of Committee T1 in the resolution of the issue is appropriate.
2. Is there industry consensus on a resolution of the issue?
3. Is there an urgent need for numbers? An urgent need for numbers may force an expedient answer, while the lack of urgency might suggest the need to continue to explore alternatives or to continue the use of existing principles, architecture and assignment criteria.

Based on the history of this issue, the answer to the first question should be "yes". It was Committee T1 that accepted the issue of ISDN numbering and resolved, in 1986, that ISDNs should be integrated into the NANP. It was Committee T1 that, coincident with that resolution, requested the NANPA to seek and recommend, through industry consensus, the method of non-LEC integration into the NANP. Committee T1 accepted, but could not resolve, the issue contained in the NANPA contribution T1AG/88-104. Despite this lengthy association between Committee T1 and the ISDN numbering issue, several industry entities from disparate industry segments have asserted that NON-LEC integration is really a regulatory and business issue, not a technical issue. The NANPA conclusion relative to the first question is that **there is not industry consensus that this is a technical standards issue.** This conclusion is based on industry discussion during the recent T1S1.4 deliberations.

The answer to the second question is "no". Despite the disagreement as to whether there is a technical standards issue, the issue was discussed under the auspices of Committee T1 for 4 years with no clear consensus. Towards the end of the discussion in Working Group T1S1.4, the issue was being discussed in the context of whether it was necessary to identify destination ISDNs. There was not consensus that it is

Letter Number	Type	Date	Page
IL-91/05-028	Information	5/13/91	3

Title	Project Number(s)
Integration of Public non-LEC ISDNs into the North American Numbering Plan	422402

necessary to identify destination ISDNs nor has there been any new evidence presented of such a need and therefore, **there is not a pressing need to modify the NANP** to do so.

In attempting to answer the question of whether there is an urgent need for numbers, the NANPA observes that there has been no demonstrated need for number resources other than those currently available, nor has there been a formal, written request from any public non-LEC for specific number resources for the provision of ISDN-based services. There also are no reports that the provision of ISDN-based services has been hampered by the lack of resolution of this issue or the lack of non-traditional NANP resources for public non-LECs. It is therefore the NANPA's conclusion that **there is no apparent urgency for non-traditional numbers** by non-LECs for the provision of ISDN-based services.

In addition to these primary questions, there are other issues that have been identified during the 4 years of discussion:

- What is the quantity of number resources needed by the non-LECs for both the near-term and the long-term? Conservation is always a concern when resources are finite, but this concern is particularly pertinent for the near-term (pre-1995) when the NANP is about to exhaust its inventory of N 0/1 X formatted NPA codes. It is especially difficult in this environment to justify the assignment of entire codes to individual carriers (potentially in the hundreds, based on the number of entities with CICs) without service descriptions and specific market forecasts for the ISDN-based services requiring NANP resources. Recovery of codes allocated prematurely is often a contentious process.
- What are the implementation/operations plans for the other uses of numbers - billing and routing? The optimal point at which to identify the most appropriate number resources for any application is after all technical and operations issues are resolved (e.g., billing, routing, signalling, transmission, network interworking).
- Are the non-LECs, as ISDN providers, to be considered part of the geographic network, or is it their intention to provide ISDN-based services on separate (non-geographic) networks? This unanswered question could be critical in determining the numbering resources best suited for the non-LECs' needs.
- Are the public, non-LEC ISDN providers franchised to provide local exchange and exchange access service? One of the principles of the NANP has been that full and unique codes have only been assigned to those carriers so franchised. This is an obvious regulatory issue that also bears on code efficiency, utilization, and exhaust.
- Would the numbering resources be utilized to identify transit carriers? CCITT Recommendation E.164, *Numbering Plan For the ISDN Era*, states, in paragraph 3.1 that "The procedure for discrimination between multiple transit RPOAs/networks is not considered to be a destination address requirement and shall therefore be excluded from the ISDN numbering arrangement."

Most of these issues were discussed openly at the industry meetings on ISDN numbering, but not a single one was resolved by industry consensus.

When modifying the NANP and its administrative procedures, the Administrator first seeks to make changes with the cooperation and consensus of the industry. During the four years of debate on this topic, the

Letter Number	Type	Date	Page
IL-91/05-028	Information	5/13/91	4

Title	Project Number(s)
Integration of Public non-LEC ISDNs into the North American Numbering Plan	422402

NANPA offered for telecommunications industry consideration several different numbering proposals. These proposals were offered to stimulate discussion or as a compromise in an attempt to de-polarize the issue. As with all other proposals, those offered by the NANPA did not achieve industry consensus. The NANP did not seek to impose any of its numbering approaches on the industry, but instead continued to support industry dialogue on the issue until it became evident that consensus was not possible in a reasonable timeframe.

CONCLUSION

Without a clear resolution of the above issues and without an urgent need for numbers, there is no basis by which to change the principles, architecture, or assignment criteria of the NANP at this time.

It is therefore the Administrator's conclusion that, for the near-term, public non-LEC ISDN providers should be integrated into the NANP by the assignment of the same numbering resources utilized today for their integration into the PSTN, i.e., line numbers in existing geographic codes.

For the long-term, the Administrator is developing a numbering plan proposal for the future of the NANP. This proposal will be presented for industry discussion and consensus in 1992. This proposal will address the ISDN numbering needs of the entire telecommunications industry.

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