ORIGINAL

99-200

EX PARTE OR LATE FILED

October 18, 2000

Ms. Dorothy Attwood, Chief
Common Carrier Bureau
Federal Communications Commission
441-12th Street, S.W.
Washington, D.C. 20554

Re: *NANC Recommendation on Individual Telephone Number (ITN) Pooling*

Dear Ms. Attwood:

The FCC, within its NRO Order (FCC 00-104), tentatively concluded not to pursue ITN pooling, because the development of technical standards and administrative guidelines were in their early stages[1]. However, it encouraged NARUC, NANC and INC to continue to study ITN and forward their recommendations to it by January 1, 2001. At its meeting on April 25th,2000 the NANC directed the NRO-WG to review this issue and to draft a recommendation for consideration by the full Council.

The NRO-WG has completed its discussions on the feasibility of Individual Telephone Number (ITN) pooling. The NANC accepted that recommendation at its October 17, 2000 meeting. This letter summarizes the consensus recommendation of the committee. A report prepared by the NRO-WG that supports this recommendation is attached hereto at Appendix A.

In its discussions of ITN pooling, the NRO-WG reviewed the report that it had previously prepared and forwarded to the NANC on October 20, 1998. That report described a proposed architecture and process flow that might support ITN pooling, and detailed a number of potential benefits and concerns associated with this capability. It also provided a high-level implementation schedule and time estimate for deployment.

The NRO-WG has determined that little has changed since the release of the original report, and that most of the report's assertions and conclusions are still valid. The attached report notes that, in its NRO Order, the FCC has taken specific steps to conserve existing number resources and limit access to additional numbers. The attached report also notes that the start of deployment of one of those measures, i.e., national Thousands-Block (1K) Pooling, is still many months away, and that the benefits are still a subject of much conjecture and debate[2]. The NRO-WG believes that the national rollout of 1K pooling within the top 100 MSAs, and possibly beyond, will end much of the speculation and provide tangible results as to the efficacy of block pooling and the need to consider more complex optimization measures such as ITN pooling. The NRO-WG recommends that a re-evaluation of ITN, with a clearly defined scope, be commissioned not later than the fourth quarter of 2001. ITN pooling represents a major change in the manner that telephone numbers are allocated to service providers, which will require an extremely significant investment in both time and resources to implement, and may adversely impact end users.

---

[1] Paragraph 228, FCC 00-104, released March 31, 2000.
[2] See NANPA Report to the NANC, September 19-20, 2000.

The NRO-WG discussed the similarities in requirements needed for ITN pooling and toll free number administration (800). Although the search, reserve and activation capabilities for toll free numbers are similar to those needed for ITN pooling, the architecture and capacities needed to support ITN are highly likely to be different and exponentially more complex and expensive.

In summary, given its cost, complexity, and potential for service degradation, any decision to move forward with ITN pooling at this time is premature. Sufficient time must be given to review the cumulative effects of those optimization measures already ordered and in the process of being implemented. If deficiencies are found, an assessment should be taken of all number optimization alternatives. This may result in the identification of less onerous methods that could be implemented in a more timely fashion than ITN.

Sincerely,

John R. Hoffman
Chair
North American Numbering Council

Attachments

Cc: Cheryl Callahan
Jeannie Grimes
NANC Members

NRO-WG REPORT - ITN POOLING
OCTOBER 13, 2000

Little has changed regarding ITN pooling since the NRO-WG released its initial report in October 1998. That report provided a description of the functional components of an ITN pooling system, a set of principles and assumptions, an implementation task list and estimated time intervals, number administration process flows, technical considerations, and lists of potential benefits and concerns. The NRO-WG conducted a cursory review of that original report, and decided, for reasons detailed below, that revisions to that document were not needed at this time. An outline of that report can be found at Attachment B hereto.

The original NRO-WG report noted that individual TN allocations would have a huge, detrimental impact on current processes used for network screening, routing and billing. In addition, in many cases, it would necessitate a wholesale replacement of SP provisioning and support systems (OSS). Furthermore, the time required to implement ITN pooling was identified in the original Report as somewhere between four and six years.

Although little has changed regarding the conclusions drawn within that Report, additional considerations were discussed regarding today's environment that may affect the utility of ITN pooling.

THOUSANDS BLOCK NUMBER POOLING

The FCC, in its Number Optimizations Rulemaking (FCC 00-104, March 17, 2000, CC Docket 99-200, the "NRO Order"), mandated the national rollout of thousands-block number pooling, nine months after the selection of a national pooling administrator. The Pooling Administrator Requirements document is still being reviewed, and no date has yet been established for the release of an RFP. At this time, it appears that the selection of a national pooling administrator and the start date of the rollout of national pooling will not occur before the third quarter of 2001. As such, the results of thousands block number pooling within the top 100 MSAs, and possibly beyond, will not be known until sometime in 2002, at the earliest. In addition, wireless carriers are not required to be LNP capable until November 2002, and the effects of the inclusion of wireless carriers in pooling will not be known until sometime after that date.

It is acknowledged that there are state pooling trials underway, however it is difficult to draw any generally applicable conclusions as to the effectiveness of pooling since these trials are currently using state-specific guidelines.

ADDITIONAL NUMBER CONSERVATION MEASURES

In its NRO Order, the FCC mandated the implementation of several conservation measures, such as sequential number assignments and restrictions on reserved numbers, and tightened the criteria for requesting and activating new or additional numbering resources. It also put in place new reporting obligations which, over time, will help measure the effectiveness of these measures in conserving numbering resources. The provisions of the NRO Order took effect only recently and some have yet to be implemented. For example, reserved number limitations, compliance with national pooling guidelines and utilization thresholds. Moreover, the NANPA is still developing its

utilization and forecast reporting analysis tools. Thus, it is too early to quantify the number conservation effects of any or all of the provisions of the NRO Order.

INVENTORIES

In the original NRO-WG report on ITN pooling, many SPs had noted a continuing need to maintain some level of numbering inventory within their own systems, to ensure prompt delivery of service. Upon further consideration, the NRO-WG has concluded that service provider inventories are a necessary component to providing effective and efficient service to end-users. It is possible that degradation of customer service would occur if ITN were the only means for service providers to assign numbers to their customers.

If such SP inventories continue to be allowed, then thousands-block pooling seems to strike a balance for now between the need for individual SP inventories and the need to share numbers among multiple providers. Further, if in the future UNP is widely implemented, voluntary or otherwise, ITN pooling seems even less useful as a number optimization method.

If no SP inventories are permitted, the ITN pooling system must be capable of handling *simultaneous* transactions from literally tens of thousands of wireline and wireless service centers, competing both within and between companies for access to the same numbering system. The capacity needed to support an operation of this magnitude could be prohibitive, in terms of both technology and cost. By comparison, the 800 SMS, which provides similar functionality to that needed for ITN pooling, currently supports the equivalent of five NPAs. There are 335 NPAs assigned to date.

IMPACT ON LNP

In its report to NANC on September 20th, 2000, the Wireless Number Portability Committee provided a conservative estimate that wireless LNP will introduce around 16 million additional ports per year. The LNP architecture was never designed to support the huge volumes of ported records that will be needed for ITN pooling, in addition to that required for LNP ***and*** thousands block pooling. The NPACs, SCPs, SOAs, LSMSs and all associated links will require significant augmentation or replacement in order to handle the anticipated load due to ITN pooling. Additionally, ITN pooling could substantially negate the benefits derived from EDR.

OPTIMIZATION ALTERNATIVES

The October 1998 NRO-WG Report on number optimization examined a variety of different conservation alternatives that had been identified at that time. After a review of the cumulative effects of the optimization measures that have already been ordered by the FCC, it may be determined that further improvement is necessary. If so, it may be appropriate to take a fresh look at all alternatives. This may result in the identification of less onerous number optimization methods that could be implemented in a more timely fashion than ITN.

IMPLEMENTATION TIMELINE

The following section outlines the various high level tasks necessary to make ITN pooling a reality. Although some of the tasks can be performed prior to the time a regulatory body with appropriate jurisdiction issues its decision to require implementation of ITN pooling, the critical timeframe begins with that decision. Some tasks on the following timeline require formal regulatory guidance, including resolution of cost recovery issues.

In each task listed below, there is a broad range estimate, generated by the NRO-WG's ITN Pooling Task Force, of the months required to complete each task. These estimates are based on experience of the participants and do not represent commitments by the identified responsible group(s). For most activities, a recommendation regarding the appropriate industry group or organization that could be delegated responsibility to achieve the listed task is indicated.

The estimated time line does not address the regulatory environment, e.g., the process and time period required for an FCC order to deploy ITN pooling and the local public utility commission activity for any required approvals and mandates. The time line assumes that there is an industry agreement in place for an appropriate industry group to perform the project management for ITN pooling implementation.

What follows are the high level tasks that are required to implement ITN pooling. The asterisk (*) denotes tasks which may be undertaken and accomplished prior to receiving a regulatory mandate, which includes resolution of cost recovery issues. The "✠" denotes tasks which are considered the critical path tasks. Critical path tasks are those which a) require completion in sequential order; and b) contain the longest intervals within their order of sequence. All other tasks are believed capable of completion within the intervals identified for the critical path tasks.

PROPOSED PROJECT MANAGEMENT/TECHNICAL TASKS AND ESTIMATED TIMELINE[1]

(Note: List is not all-inclusive.)

	TASK	TIME PERIOD	RESPONSIBLE GROUP
1.	Recommendation of an ITN pooling architecture *✠	1-3 months	NANC
2.	Develop high-level requirements *✠	3-6 months	NRO-WG/OBF
3.	Pooling Number Administration guidelines *✠	9-12 months	INC
4.	PAS and system interface requirements *	6-9 months	NRO-WG
5.	NPAC SMS system requirements *	6-9 months	NANC LNPA
6.	Public safety requirements	6-9 months	Public safety agencies
7.	Determine who will issue the RFP(s) *	1 month	NANC
8.	Prepare and develop RFP for pooling administrator *✠	3-4 months	TBD

[1] Additional tasks may be identified for wireline and wireless networks that might elongate the timeline.

REGULATORY ORDER REQUIRED TO PROCEED			
9.	Ensure regulatory compliance of RFP ✠	1-3 months	TBD
10.	Issue pooling administrator RFP ✠	1 month	TBD
11.	Preparation of vendor proposals ✠	2 months	Vendors
12.	Evaluate and select vendor * ✠ (including negotiations)	3 months	NANC/NRO-WG
13.	Determine billing and collection agent	Concurrent	Cost Recovery
THIS IS CONCURRENT WITH ABOVE RFP PROCESS			
14.	Prepare and develop RFP for Pooling Administration System *	3-4 months	TBD
15.	Ensure regulatory compliance of RFP	1-3 months	TBD
16.	Issue Pooling Administration RFP	1 month	TBD
17.	Vendor proposals preparation	2 months	Vendors
18.	Evaluate and select vendor responses	2 months	NRO-WG
19.	Develop network or signaling requirements	3-6 months	T1S1.6
20.	PAS (FRS/IIS[2]) ✠	6-9 months	NRO-WG/OBF
21.	Develop FRS and IIS for NPAC SMS	6-9 months	NANC LNPA
22.	Build/modify/deploy systems ✠	15-27 months	Vendor/SP's, PAS, SP OSSs, NPAC SMS, Test interoperability of: NPAC SMS-PAS, SP OSSs – PAS, SP OSSs-PAS Service Provider administrative systems-NPAC SMS
23.	Network enhancement/deployment and testing	9-15 months	
24.	Develop Implementation Plan	3 months	
25.	Industry training	2 months	
26.	Test the entire process and system ✠	6 months	
27.	Establish the pool(s) ✠	1-3 months	

- Tasks that may be undertaken and accomplished prior to receiving a regulatory mandate that includes resolution of cost recovery issues.

✠ ***CRITICAL PATH ITEM: Items that must be completed before the next step in the project can proceed. The Critical Path (✠) totals are approximately four to six years.***

The time estimate above assumes that some of the tasks can be performed in parallel. With industry commitment to the proposal, four to six years may be required to implement ITN pooling, dependent upon receiving a regulatory order in the first one to two years. If the regulatory body with appropriate jurisdiction does not issue its decision to require ITN pooling within the first one to years, additional time (beyond the four to six years) may be needed to complete the implementation of ITN pooling.

[2] FRS = Functional Requirements Specification
IIS = Interoperability Interface Specification