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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
Mail Stop Code 1170
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: CC Docket No. 95-116, Number Portability

Dear Ms. Salas:

Please associate the attached material, "Comments of Southwestern Bell Telephone Company, Pacific Bell and Nevada Bell," North American Numbering Council Letter Seeking Clarification of the Term "Technology Neutral" (Oct. 29, 1997), and "Report from Wireless Wireline Integration Task Force to the North American Numbering Council" (1/20/98) with the above-referenced docket. It is submitted at the request of the staff. We are submitting two copies of this notice in accordance with the Commission's rules. Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions.

Sincerely,

Attachment

Cc: D. Conley

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OFFICE OF THE SECRETARY

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In the Matter of
North American Numbering Council
("NANC") Letter Seeking Clarification of the
Term "Technology Neutral"

**COMMENTS OF SOUTHWESTERN BELL TELEPHONE COMPANY,
PACIFIC BELL AND NEVADA BELL**

Pursuant to DA 97-2234 released October 20, 1997,

Southwestern Bell Telephone Company (SWBT), Pacific Bell (Pacific), and Nevada Bell (Nevada) (collectively, the SBC Companies), file these comments as to whether number pooling meets the standard of "technology neutral."

The SBC Companies believe that if certain conditions are met, number pooling can be technologically neutral. In order to ensure that number pooling is technologically neutral, it must be implemented such that 1) all telecommunications carriers (both LNP-capable and non LNP-capable) have appropriate access to numbering resources; 2) that appropriate and timely cost recovery is permitted for pooling-related expenditures; and 3) that pooling is done in the most cost-efficient manner (i.e., 1000s blocks) and in a realistic timeframe.

Technology neutral should be defined in reference to a criteria that ensures that no carrier or segment of the industry based on the technology they are using (i.e. wireless vs. wireline) is disadvantaged in its attempts to gain numbering resources to serve its customers.

Number pooling has many benefits but also introduces additional complexities. The benefits of number pooling relate to delaying the need for NPA relief efforts (geographic area code splits or overlays). Number pooling does not in and of itself solve NPA exhaust issues; it delays them and provides for greater code utilization within an existing area code.

However, number pooling adds significant additional complexities to an already complex NPA relief planning process. Determining when an NPA requires relief is an already difficult and controversial process. Today, this difficulty arises in situation where all telecommunications providers get full NXXs. By receiving full NXXs, NPAs can exhaust very rapidly. For example, in an NPA where approximately 200 NXXs are available and the historic assignment rate for the NPA is 5 NXXs per month, the particular NPA would not reach exhaust for 40 months (more than 3 years in the future). However, if the NPA has 40 rate centers and 5 facilities-based wireline carriers want to enter the market, the 200 remaining NXX codes could be assigned virtually overnight.

With number pooling, LNP capable carriers would have access to a pool of 1000s blocks in each rate center. It will be quite difficult to ensure that LNP-capable carriers have adequate 1000s blocks in each rate center

while at the same time making sure that the non LNP-capable carriers have an adequate supply of full NXXs. When would the Code Administrator declare jeopardy in a particular NPA? Should it be based on the supply of full NXXs, or on some algorithm of assignments within the pooled NXXs? What if few 1000s blocks are available in one rate center (out of 40) while numerous full NXXs exist that have all been earmarked for the non LNP-capable carriers?

These examples illustrate the need for strong, effective, enforceable uniform guidelines to be developed in order to make the Code Administrator's job easier, and to reduce the need for subjective decision-making. While number pooling makes code administration more complex, enforceable rules as to how the code administrator should handle requests and assignments will mitigate any adverse consequences.

The SBC Companies believe that number pooling can be "technology neutral" even though only LNP capable carriers can take advantage of it. If number pooling were not permitted until all carriers are LNP-capable, number pooling will never be implemented. There is no requirement that all carriers be LNP capable. Certain carriers, (paging, non-selected wireline offices) have no requirement to ever deploy LNP. Thus, to get the benefits that number pooling provides, it has to be implemented before LNP is applicable to all carriers. And, all carriers who are LNP capable, regardless of the technology employed by the carrier, will have access to number pooling.

Number pooling was never meant to be a vehicle to ensure that all numbers are available to all carriers. LNP ensures that customers who wish to change service providers don't have to change their telephone numbers when staying at the same location. In other words, LNP enables access to the embedded base of numbers while carriers have equal access to the numbering resource in order to serve any new customers. Number pooling will help to assure that more numbers are available to serve these new customers.

The FCC, state regulatory bodies, and the industry must also set realistic time frames for number pooling implementation. LNP is a technical prerequisite for number pooling. In other words, LNP provides the platform that enables number pooling. However, LNP, in and of itself, doesn't make number pooling happen. Other operational support system changes, above and beyond those made for LNP, must be made prior to pooling implementation. Carriers are currently evaluating the timeframes and costs associated with these changes in order to arrive at a realistic date for number pooling implementation in particular areas (after all, number pooling is a fairly recent concept and hasn't really been fully defined by the industry). Throughout the country, there is record evidence that some believe that number pooling is the panacea for all NPA relief situations and, therefore, must be implemented by unrealistic dates. Since LNP is a technical prerequisite for number pooling and LNP is the largest, most complex, and certainly most costly undertaking the industry has ever done, it

is doubtful that the additional operational support systems changes mentioned above could be worked on in a parallel fashion with LNP.

And, like LNP, cost recovery for these efforts must be assured. Number pooling requires fundamental changes to various ordering, tracking and billing systems in the LEC network. Cost recovery for these changes must be provided before this work is undertaken.

The SBC Companies support the efforts of state commissions (e.g., Texas, Missouri, Illinois) who have issued comprehensive data requests asking for NXX utilization, spare 1000s block information, along with forecasted needs. This effort results in a recommendation based on facts, not speculation. Once the proper analysis is conducted on the data received, a state PUC can determine how much, if any, delay in NPA exhaust will occur if number pooling is implemented. Simply put, if a particular NPA has few codes/1000s blocks left for assignment, the implementation of number pooling will do little to delay exhaust. Conservation efforts which begin where exhaustion is imminent will have very little benefit. To truly affect NPA exhaust, number pooling must be implemented when there is an adequate supply of the numbering resource available in the given NPA.

In conclusion, number pooling can be implemented prior to ubiquitous LNP implementation. All LNP capable carriers can utilize number pooling in order to forestall area code exhaust. However, non LNP capable carriers must have non-discriminatory access to full NXXs.

Additionally, appropriate timeframes must be developed, cost recovery must be assured, and guidelines for code administration must be put into effect.

Respectfully submitted,

SOUTHWESTERN BELL TELEPHONE
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Date: October 29, 1997

0173375.01

CERTIFICATE OF SERVICE

I, Brenda K. Dinan, hereby certify that the Comments of Southwestern Bell Telephone Company, Pacific Bell and Nevada Bell, in the matter of North American Numbering Council ("NANC") Letter Seeking Clarification of the Term "Technology Neutral", has been served October 29, 1997, to the Parties of Record.

A handwritten signature in cursive script that reads "Brenda K. Dinan". The signature is written in black ink and is positioned above a solid horizontal line.

Brenda K. Dinan

October 29, 1997

Service List

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Common Carrier Bureau
Federal Communications Commission
Suite 235
2000 M Street, NW
Washington, DC 20554

ITS
1231 20th Street, NW
Washington, DC 20036

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Brenda K. Dinan

October 29, 1997

Report from Wireless Wireline Integration Task Force to the North American Numbering Council (1/20/98)

Rate Center Issue

Issue Statement: It is recognized that there is a difference within the context of Service Provider Portability with respect to porting a subscriber from a:

- Wireline Service Provider to a wireless service provider and
- Wireless Service Provider to a wireline service provider

Within the WWITF, there is a lack of consensus whether the difference constitutes a lack of competitive parity.

NOTE: The material contained herein is intended to provide NANC members and other NANC participants with an understanding of the basic wireless and wireline architectures and functions which impact wireless - wireline number portability. The purpose is to facilitate the NANC's analysis and investigation of wireless - wireline portability issues. With the exception of the request from the LNPA Working Group for the NANC to address the parity issues associated with wireless - wireline portability, nothing in this document should be construed as a recommendation or conclusion by the LNPA Working Group or the Wireless - Wireline Integration Task Force.

Wireline - Wireless Service Provider Portability Background

Background Material

Wireless - Wireline Service Provider Portability

1.1 Wireline Rating Architecture

The fundamental building block of the wireline rating architecture is the rate center. A rate center is a geographical area which utilizes a common geographical point of reference, called a rating point and defined by vertical and horizontal (V/H) coordinates, for distance measurements associated with call rating. In Figure 1, a call from a customer in Rate Center D to another customer in Rate Center 1 would be rated on the basis of the distance between their respective V/H coordinates.

A rate center may encompass a single wire center area, a portion of a wire center or multiple wire center areas. Rate Center 1 (Figure 1) might consist of multiple Incumbent Local Exchange Carrier (ILEC) wire center areas while Rate Center 3 might include only a single wire center area. Rate center boundaries are approved by state commissions.

1.2 Wireline Local Calling Areas

Calls between customers located in different rate centers may be billed at local flat rate, local measured rate or toll. The local calling area may be defined in several different ways. Each local exchange carrier defines its own originating calling area which are included in their tariffs filed with state commissions. In some states the distance between the originating and terminating rate center V/H coordinates provide the basis for the differentiation between local and toll calling (e.g. less than 12 miles is local and 12 miles or greater is toll). In other states local calling areas are not distance sensitive, but are defined on the basis of geography as shown in Figure 1. These local calling areas frequently encompass multiple ILEC rate centers.

1.3 Wireline NXX Assignment

For ILECs, NXXs are generally assigned to individual central office switches for use in their respective geographic wire center serving area within a rate center. Competitive Local Exchange Carriers (CLECs) are expected to have fewer switches than the imbedded ILEC architecture. CLEC wire center serving areas may encompass not only multiple ILEC wire centers, but also multiple rate centers. For example, a CLEC might have a single switch serving one or more MSAs. In order to maintain rate center integrity and avoid consumer confusion, in most areas CLECs will need a minimum of one NXX for each rate center within their planned service area. These NXXs will be used for CLEC customers that are not porting a ILEC telephone number. For example, in Figure 1, a CLEC wishing to serve customers located in the central zone and tier 1 would need 8 NXXs, one for rate centers 1 through 8.

Wireline - Wireless Service Provider Portability Background

1.4 Wireline TN Assignment

A customer is assigned a telephone number based on their physical location. ILEC customers will be assigned a telephone number from the NXX(s) assigned to the switch that serves the wire center and rate center area in which the customer is physically located. CLEC customers will be assigned a telephone number from the NXX(s) assigned to the CLEC for the rate center area in which the customer is physically located. These assignment procedures ensure the retention of the rating structure integrity.

2.1 Wireless Rating Architecture

Wireless carriers have flexibility in defining their own rating architectures. Factors in determining how to rate a call may include time, distance, whether the call is mobile to mobile versus mobile to land, time-of-day, and aggregate minutes of use per month. Wireless carriers are not regulated at the state or federal level concerning prices or rating, nor are they limited to incorporating originating and terminating rate centers in their rate structures. Their rating structure is solely a business decision.

2.2 Wireless Local Calling Areas

Since they have flexibility in determining their rating structures, wireless carriers define local calling areas to meet the competitive needs of the markets. Wireless carriers have no domestic requirements to file state or federal tariffs. However, all wireless carriers have the concept of calling areas in which no additional toll charges are applied for calls. In some cases, this may be based on:

- BTA (Basic Trading Area),
- MTA (Major Trading Area),
- RSA (Rural Serving Area)
- MSA (Metropolitan Statistical Area),
- State
- Combination of States
- LATA (Local Access Transport Areas)
- NPAs

In addition, these can be combined in a variety of ways with the above rating schemes.

2.3 Wireless NXX Assignments

NXX codes that are assigned to wireless carriers are associated to a specific wireline rate center and are communicated via the LERG. These are assigned to wireline rate centers in order to accomplish land to mobile rating. However, once NPA-NXXs are assigned to a wireless carrier, wireless carriers may select any one of their NPA-NXXs when allocating numbers to a subscriber. The WSP may select a particular NPA-NXX value based on customer desires of calling areas for land to mobile calls, mobile to land calls, or a combination of both. Alternatively, a wireless carrier may choose to select an NPA-NXX value that is physically closest to the subscriber billing address. There are no state

Wireline - Wireless Service Provider Portability Background

or federal requirements to associate an NPA-NXX for a new subscriber based on their residence, billing, or other location. For example in Figure 2 RCs (Rate Center) 2 - 7 have local calling to RC 1, and RCs B - E, 7, 8 have local calling to RC A. Note that RCs A - E are located in NPA 2. Assuming there was customer demand for these calling scopes the WSP might assign an NXX from NPA1 (214-543) to RC 1 as a wireless exchange W-5 and an NXX from NPA2 (972-234) to RC A as a wireless exchange W-11.

2.4 Wireless Telephone Number Assignment

The customer's physical, residential, business, or billing location is not a necessary requirement in determining which numbers are assigned. Rather, factors such as originating or terminating calling scopes in relationship to wireline networks may be a determining factor. The NPA-NXX portion of a telephone number of a wireless subscriber may be selected based on the criteria described above in Section 2.3. There is no requirement that a subscriber limit their service usage to certain rate centers, nor is their physical location necessarily a determining factor in which number they are assigned. In Figure 2, if a customer whose billing address was located in RC X1 wanted to have local calls to their wireless phone from callers located in RCs 1- 8, they would be assigned a telephone number from an NXX in wireless exchange W-5 (214-543) assigned to RC 1.

3.0 Limitations on the Scope of Service Provider Portability

Due to the need to ensure proper rating and routing of calls, the NANC LNPA Architecture Task Force agreed that service provider portability was limited to moves within an ILEC rate center. Section 7.3 of the NANC LNP Architecture & Administrative Plan report which has been adopted by the FCC, states, "portability is technically limited to rate center/rate district boundaries of the incumbent LEC due to rating/routing concerns". As shown in Figure 3, a wireline customer could move from the northeast corner of RC 1 to the southwest corner of the same rate center and port their number, either when changing service providers or for a move within their own network. However a wireline customer could not move between RC 1 and RC 2 and retain their telephone number.

4.0 Location Portability

Location portability will extend the scope of number portability beyond rate center or local calling area boundaries, but there are numerous significant issues that must be addressed in setting the scope of location portability. These issues include, but are not limited to: the loss of the 1+ toll identifier that some state regulators have maintained is a significant consumer issue, the ability to determine the jurisdictional nature of calls to numbers that have been ported across a state boundary, the ability to recognize an interLATA call for routing to the customer's preferred interexchange carrier, the impact of porting beyond a geographical NPA boundary, consumer confusion issues, and development of the means to rate and bill calls for all of the above potential scenarios.

Wireline - Wireless Service Provider Portability Background

The question of location portability was delegated to the states by the FCC in their First Report and Order and Further Notice of Proposed Rulemaking in CC Docket 95-116, released 7/2/96.

5.0 Example Porting Scenarios

The following scenarios reflect rate center limitations included in Section 3.0. See Figures 4A - 4D.

Scenario A - Wireline subscriber with telephone number 214-789-2222, located in RC 7, wishes to change to wireless service while remaining at the same location.

Porting would be permissible as long as the wireless service provider has established an interconnect agreement for calls to this wireless telephone number in RC 4.

Scenario B - Wireline subscriber, 214-456-1111 located in RC 4 is moving to RC 6 and wishes to change to wireless service.

Porting would be permissible as long as the wireless service provider has established an interconnect agreement for calls to this wireless telephone number in RC 4. Because the subscriber will have terminal mobility and the actual location of the phone will vary, the move of the billing location to another rate center does not impact rating.

Scenario C - Wireless subscriber, 972-234-5555, whose billing location is in RC A, wishes to change to wireline service provider while remaining at the same location.

Porting would be permissible because the wireless NPA-NXX, 972-234, is assigned to RC A and the subscriber is located in RC A.

Scenario D - Wireless subscriber, 972-234-3333, whose billing location is in RC F, wishes to change to wireline service.

Porting would not be permissible because the subscriber is located in RC F and the subscriber's telephone number is assigned to RC A. If this were allowed calls from other customers located in RC F to this subscriber would be toll since calls from RC F to RC A are toll and the ported telephone number would be associated with RC A.

6.0 Parity Issues

The above examples provide only a small sample of potential porting scenarios. If all of the potential scenarios were examined, the following patterns would emerge:

Porting from a wireline service provider to a wireless service provider is permitted as long as the subscriber's initial rate center is within the WSP's service area and the WSP has established interconnection/business arrangements for calls to wireless numbers

Wireline - Wireless Service Provider Portability Background

within that rate center. This could apply even when the subscriber is moving to another LATA because of the terminal mobility characteristic of almost all wireless applications. With terminal mobility the subscriber can be physically located anywhere.

Porting from a wireless service provider to a wireline service provider is *only* allowed when the subscriber's physical location is within the wireline rate center associated with the wireless NPA-NXX.

This creates a difference from an end user perspective when porting from a wireline to wireless service provider versus porting from a wireless to a wireline service provider. This difference is due to the inherent differences in service areas and terminal mobility between wireline and wireless service providers.

7.0 Federal Statutory and Regulatory Policies

Definition of Service Provider Portability - Section 3, Telecommunications Act of 1996. "The term 'number portability' means 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."

Federal Policy Objectives for Numbering - Report and Order, CC Docket No. 92-237 Released 7/13/95.

- Administration of the plan (NANP) must seek to facilitate entry into the communications marketplace by making numbering resources available on an efficient, timely basis to communications service providers.
- Administration of the NANP should not unduly favor or disadvantage any particular industry segment or group of consumers.
- Administration of the NANP should not unduly favor one technology over another. The NANP should be largely technology neutral

Location Portability - First Report and Order and Further Notice of Proposed Rulemaking in CC Docket 95-116, released 7/2/96. The FCC delegated the question of location portability to the states. The FCC stated in paragraph 186, "To avoid the consumer confusion and other disadvantages inherent in requiring location portability, however, we believe state regulatory bodies should determine, consistent with the Order, whether to require carriers to provide location portability. We believe the states should address this issue because we recognize that "rate centers" and local calling areas have been created by individual state commissions, and may vary from state to state."

Portability between CMRS and Wireline Service Providers - First Report and Order and Further Notice of Proposed Rulemaking in CC Docket 95-116, released 7/2/96.¹

¹ Italics in following excerpts added for emphasis.

Wireline - Wireless Service Provider Portability Background

- Paragraph 155: “This mandate is in the public interest because it will promote competition among cellular, broadband PCS, and covered SMR carriers, as well as among CMRS and wireline providers. We therefore include those carriers in our mandate to provide long term service provider portability ...”
- Paragraph 160: “We further conclude that number portability will promote competition between CMRS and wireline service providers as *CMRS providers offer comparable local exchange and fixed commercial mobile radio services....* Finally in the Fixed CMRS Notice, the Commission tentatively concluded that PCS and cellular providers will provide *fixed CMRS local loop services, and that such carriers will directly compete with traditional wireline local exchange carriers.* We believe, for the reasons stated above, that service provider portability will encourage CMRS-wireline competition, creating incentives for carriers to reduce prices for telecommunications services and to invest in innovative technologies, and enhancing flexibility for users of telecommunications services.”
- Paragraph 161: “...Several parties have indicated that at least some CMRS providers intend to compete with wireline carriers in the local exchange market. To do so effectively, *CMRS carriers are likely to change their pricing structures to resemble more closely wireline pricing structures.*”

8.0 Key Escalation Issues

There are three key questions which need to be resolved before a method for wireline wireless portability can be selected:

- Does the difference in the scope of porting capabilities between wireless and wireline service providers create a competitive disadvantage which would be inconsistent with the FCC’s objectives for numbering?
- If so, does this competitive disadvantage override by the FCC’s order to implement wireless - wireline portability to encourage CMRS - wireline competition?
- Would the inability in certain situations for a wireless end user, staying at the same location, to keep their telephone number when changing to a wireline service provider acceptable from a statutory or regulatory perspective?

Wireline - Wireless Service Provider Portability Background

APPENDIX A

Potential Alternative Methods to Achieve Parity Considered

- A. Require assignment of NXXs to wireless service providers on a per rate center basis, and require assignment of telephone numbers to wireless customers based on their billing location.
 - This would have a significant negative impact on NPA exhaust.
 - There is no technical need from a routing or rating perspective within the wireless service provider's network for this restriction since with terminal mobility the physical billing location of a wireless set is not relevant.
- B. Require alignment of local service areas between wireless and wireline service providers.
 - This is problematic from a jurisdictional basis since wireless service providers are regulated federally and since local calling areas for wireline service providers are largely regulated on a state basis.
 - Wireline local service areas are restricted from extending beyond LATA boundaries.
- C. Require wireless and wireline service providers to adopt the same rating methods.
 - Same jurisdictional problems as described in B.
 - Many state regulators (and consumers) would not be in favor of mandatory measured rate service for wireline service.
 - Wireless rating methods are business decisions and are not subject to regulation.
- D. Defer wireless portability until state commission order implementation of location portability beyond the rate center, NPA boundary, state and LATA.
 - Location portability would be very complex and costly to implement.
 - Location portability has been delegated to state commissions.
- E. Limit wireless - wireline portability to fixed location/non-roaming wireless services where the wireless service provider has agreed to adopt numbering assignment and portability rules consistent with wireline service providers.
 - Does not provide full wireless - wireline portability.
- F. Limit service provider portability to intra-wireline service provider and intra-wireless service provider changes.
 - Not compliant with the FCC requirements in their First Report and Order.

