

North American Numbering Council

Local Number Portability Administration Working Group

**Wireless - Wireline Service Provider Portability
Rate Center Discussion**

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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.

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

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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.

1.5 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.

1.6 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.

1.7 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 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

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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.

1.8 Wireless Telephone Number Assignment

The customers 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.

1.9 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.

1.10 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. 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.

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1.11 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.









