

**Modal Reasoning for Nationwide Number Portability
(NNP) Implementation and Nationwide Number Assignment to
be Implemented Concurrently**

In the current timeframe and environment, there is a modal disadvantage for wireline service companies vis-a-vis wireless and nomadic interconnected VoIP service companies in telephone number (TN) assignment as well as number porting. This disparity should be recognized and considered in the current work underway in the industry as the NANC progresses with the work to respond to a request from the FCC Wireline Competition Bureau on some aspects of Nationwide Number Portability (NNP). This disadvantage can be ameliorated if NNP and Nationwide Number Assignment are implemented in the IP environment concurrently. It should be emphasized that the TDM network is not appropriate for the implementation of NNP, and would require unrealistic investment in sun-setting technologies to even attempt the implementation of NNP. (See attached slide: “Changes in TDM to Make NNP Operate”, from Mark Lancaster, AT&T.)

In the current environment, where neither Nationwide Number Portability (NNP), nor Nationwide Number Assignment (NNA), is implemented, for customer requests of the *assignment* of a TN associated with a location other than their current geographic location, wireline customers are disadvantaged. Wireline based providers cannot accommodate this customer request due to regulatory requirements limiting TN assignment to a fixed location. Faced with the same request, wireless-based providers can accommodate the customer's request, as long as the wireless provider is authorized to provide service in the location of the customer and has, at a minimum, roaming available in the location of the desired TN. An interconnected VoIP provider with this same request also can accommodate the customer's request, if the interconnected VoIP provider meets the requirements of the FCC's VoIP Direct Access to Numbering Report and Order (FCC 15-70).

In the same current environment, for customer requests of a *port* of their TN associated with their current geographic location to a location other than their current geographic location wireline customers are again constrained. Wireline service providers cannot port the TN to the customer's new location due to regulatory requirements limiting local

number portability (LNP) to a fixed location within a certain rate center. Faced with the same request, wireless service providers have greater flexibility, and can retain their TN associated with their current geographic location while located in their new geographic location, as long as the new port in provider is authorized to provide service in the wireless customer's old geographic location and also provides service in the new geographic location, because when the wireless provider serves both locations, the customer can roam. An interconnected VoIP service provider with this same request also can accommodate the customer's request, if the interconnected VoIP service provider meets the requirements of FCC 15-70.

Should the Commission determine to implement NNP, and NNA is not concurrently implemented, wireline service providers will continue to be disadvantaged in number assignment, even while they are allowed to port numbers nationally. A disadvantage of this kind could then lead to consumer behaviors to work around the impediment. Such a disadvantage is likely not the intent of the FCC's Wireline Competition Bureau. If NNP is implemented, concurrent with the implementation of NNA, there would be no modal disadvantage.

Changes in TDM to Make NNP Operate

What would be needed to retrofit current networks?

Under LNP Today	Under NNP Tomorrow	Requirement
LRN LATA = Ported TN LATA	LRN LATA need not = Ported TN LATA	<u>LRN query must be performed by originating carrier to determine if call is local or LD. TDM switches expand to query all NPA-NXXs (each switch table contains <u>all NXXs</u>) (Assumption 1)</u>
LRN Region = Ported TN Region	LRN Region need not = Ported TN Region	<u>NPAC regional DBs carry LRNs from all regions or interconnect/communicate between DBs (Assumption 2)</u>
Local vs Toll jurisdiction based on dialed TN	Local vs Toll based on new geographic parameter	<u>New geographic info parameter added to switch data, NPAC, carried in SS7 signaling (TCAP for query, ISUP for call set-up) and recorded, as well as change to provisioning, billing systems (Assumption 1)</u>
Users recognize toll call based on dialed TN	Toll warning or Customer Education required (Alternative: Eliminate toll charges)	Originating switch must <u>play toll warning</u> if a local number has been ported to toll, or must educate customers on billing (Assumption 1)

Assumption 1: TDM equipment vendors and SS7 protocol must be updated and supported, including for manufacturer discontinued products.

Assumption 2: NPAC contract and architecture would require overhaul to accomplish inter-Region communication.

NOTE: End user behaviors/expectations must adjust to NNP model (e.g., local vs toll, dialing patterns). Other network changes will likely be required.