

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Nationwide Number Portability)	WC Docket No. 17-244
)	
Numbering Policies for Modern Communications)	WC Docket No. 13-97

**COMMENTS
OF
WTA – ADVOCATES FOR RURAL BROADBAND**

WTA – Advocates for Rural Broadband (“WTA”)¹ hereby submits its comments with respect to the *Additional Findings Report on Nationwide Number Portability*, dated May 13, 2019 (“*NANC NNP Report*”), by the Nationwide Number Portability Issues Working Group of the North American Numbering Council (“NANC”). These comments are filed in response to the Public Notice (*Wireline Competition Bureau Invites Comments on NANC Report Regarding Proposals to Implement Nationwide Number Portability*), WC Docket Nos. 17-244 and 13-97, DA 19-436, released May 17, 2019.

WTA previously addressed the issues of nationwide number portability (“NNP”) in comments that it filed in the captioned dockets on December 27, 2017. It therein questioned the nature and extent of demand by the public for NNP (especially with respect to traditional

¹ WTA is a national trade association representing more than 340 rural telecommunications providers that offer voice, broadband, and video-related services in rural America. WTA members are predominately RLECs that serve some of the most rugged, remote and/or sparsely populated areas of the United States. The typical WTA member has 10-to-20 full-time employees and serves fewer than 3,500 access lines in the aggregate and fewer than 500 access lines per exchange. The primary service areas of WTA members are comprised of farming and ranching regions, isolated mountain and desert communities, and Native American reservations. WTA members are providers of last resort to many remote areas and communities that are both very difficult and very expensive to serve.

geographically-based wireline numbers), and urged the Commission to proceed in measured and discrete steps. Specifically, WTA proposed that the Commission start with the wireless sector that has developed effective location tracking processes and that already uses telephone numbers that have become increasingly personal and non-geographic in nature. WTA recommended that the Commission take more time to address wireline NNP until after it deals with the foreseen and unforeseen problems of implementing NNP for wireless services and gives the ongoing transition from Time Division Multiplexed (“TDM”) voice services to Voice over Internet Protocol (“VoIP”) services more time to proceed further. .

WTA members have been very pleased with the changes that the Commission has recently made to improve the predictability and sufficiency of both model-based and cost-based high cost support mechanisms. They look forward to using this support to extend and upgrade their voice and broadband networks and to improve the services they provide to their rural customers. However, WTA has concerns that implementation of NNP may impose substantial new costs upon rural local exchange carriers (“Rural LECs”) for switch replacements and modifications, recurring database dip charges and software right-to-use (“RTU”) fees, and transport that outweigh any NNP benefits realized by rural customers and that may reduce the net high-cost support and other financial resources available to Rural LECs for network build-outs.

WTA’s primary take-away from its reading of the *NANC NNP Report* is that it was not clear the extent to which the cost-benefit analyses for the National Location Routing Number (“NLRN”) solution and the Internet Protocol Location Routing Number (“IPLRN”) solution took into account the resources and circumstances of Rural LECs vis-à-vis those of AT&T, Verizon and other large price cap carriers. For example, it was not clear how the costs used to estimate

the *NANC NNP Report*'s orders of magnitude were derived, particularly the extent to which both absolute and relative Rural LEC costs and cost burdens were explored and considered. WTA emphasizes that it is not challenging or opposing the Location Routing Number ("LRN") concept as a general technical matter, but rather is seeking more specific focus upon the operating circumstances and finances of Rural LECs and other small carriers during the NNP development process.

Some WTA members have experience porting wireline telephone numbers to local carriers – generally, wireless carriers and competitive local exchange carriers ("CLECs") -- that have a presence within or near their local exchange service areas. This number porting on a local basis is generally accomplished via bilateral interconnection or traffic exchange agreements between carriers that are familiar with each other. WTA members are unclear how NNP will be accomplished, given that there are well more than a thousand incumbent local exchange carriers ("ILECs"), CLECs, wireless carriers and VoIP service providers operating throughout the United States today, plus a significant amount of turnover with carriers entering and exiting the industry as well as changing ownership via mergers and acquisitions. WTA members are well aware that the large price cap carriers will rarely ever spend time or resources to negotiate any sort of agreements with small carriers where the traffic volumes and dollars involved are not significant to the large carriers. Moreover, it would appear highly inefficient and economically wasteful, if not virtually impossible, for thousands of carriers to negotiate bilateral porting arrangements with each other, particularly when many pairs of such carriers are unlikely ever to be asked to port a number between them. The *NANC NNP Report* does not appear to address this issue other than to indicate that it will likely be impossible for legacy wireline carriers to provision and rate "all 200+ {Numbering Plan Areas} as served [telephone numbers]" (*Report*, pp. 18-19).

WTA will be very interested to see what kind of system or organization the Commission will propose to implement number porting among thousands of carriers. One way to reduce the size and complexity of an NNP conversion would be to exempt smaller carriers – for example, those with less than 100,000 or 250,000 customer numbers in use. However, small carrier exemptions may not be feasible if NNP changes dialing patterns, routing rules and rating methods so much that exemptions would impair call completion and other small carrier participation in the national network.

WTA members report that the major initial impact of NNP will be to require replacement of their TDM and other older switches, and significant upgrades or modifications of their softswitches. These increased switching costs appear to be necessary to query all originating calls, and particularly to be able to terminate calls to customers who have moved into their exchanges with ported numbers from other carriers and service areas. Some WTA members have approached their switch vendors regarding the plans and products they are developing to address NNP, and have found that their vendors are unable to provide much equipment or cost information until NNP standards are set and defined.

The primary cost-benefit question regarding NNP is whether the number of incoming customers with numbers ported from elsewhere is sufficient to justify the costs of replacing or substantially upgrading Rural LEC switches. While some RLECs are experiencing substantial growth, most have experienced static or declining population and customer bases during recent years. And even when people have moved into RLEC service areas, they frequently have brought a cellular or smart phone (with an existing phone number obtained elsewhere) for their personal use, and have ordered a fixed wireline or broadband-only service locally (without any request to use a ported number with it). Put simply, most WTA members have yet to see any

significant demand for them to serve wireline telephone numbers ported by incoming customers from elsewhere. The common response is that they might expect to get one or two requests to serve incoming ported numbers every year or so, and are likely to go years at a time without receiving any. WTA believes that such minimal demand does not even remotely justify the potential six-figure or greater costs of replacing or upgrading existing RLEC switches.

WTA understands that once a Rural LEC member ports a number to another carrier, its local exchange switch can no longer assume that all calls go to specific geographic locations within its local exchange or calling area. As a result, the carrier must install All Call Query (“ACQ”) or similar functionality in its switch, and must query an appropriate database (called “doing a dip”) to determine where each call to an existing or former “local” telephone number goes. These recurring dip charges already range from \$2,000 to over \$6,000 per month for typical WTA member study areas, and can be expected to grow if NNP is implemented. Switch owners may also be subjected to a monthly right-to-use (“RTU”) fee in order to have access to and use the software required for their switch to implement NNP.

WTA is unaware of any pending proposals to limit database dip charges on an aggregate or per-dip basis, and fears that both dip charges and RTU fees can grow to the point that they have an adverse impact on the financial health and broadband build-out capabilities of some Rural LECs. One way to minimize these NNP-related operating expenses for all carriers would be to establish a nationwide cap on database dip charges. Such a cap could be set in a number of ways to recover the reasonable costs of establishing, maintaining and operating such databases, but to limit excess profits as well as preferences or discrimination among users. Another approach would be for the Commission to select an agent to establish and administer a

nationwide public database for NNP, to fund all or a portion of such database from industry assessments, and to process individual database dips at little or no charge.

WTA members have a lot of other questions and uncertainties as to how NNP might work. For example, to what extent, and at what expense, will Rural LECs have to replace, upgrade or modify their billing and rating facilities and operations? The *NANC NNP Report* scales are a start, but much more and more detailed information is necessary before Rural LECs can obtain accurate and reliable modification and cost estimates from their vendors. Also of concern is the impact of NNP upon rate centers and toll services. If a former Georgia resident moves into Rural LEC exchange in Hays, Kansas and ports his Georgia wireline telephone number there, how will a telephone call back to one of his former Georgia neighbors be routed, rated and billed? Is the originating or terminating carrier or an interexchange carrier responsible for transport charges? Likewise, how will a call from the Georgia number ported to Hays to another resident of the Hays exchange be routed, rated and billed?

It is not clear to WTA members whether the ultimate NNP solution will subject them to transport charges for the carriage of originating or terminating calls beyond their service territories, perhaps long distances beyond them. At this time, RLECs do not incur transport charges to deliver calls to wireless carrier interconnection points outside their local exchange service areas due to the workings of the rural transport rule in Section 51.709(c) of the Commission's Rules. If transport charges comprise a substantial additional cost of NNP, a practicable solution would be to extend the Section 51.709(c) rural transport rule to encompass the transport required by the NLRN and IPLRN solutions or any other NNP approach. Specifically, an extended rural transport rule would relieve Rural LECs from liability for the costs of any NNP-related transport beyond their local exchange service areas. This solution is

equitable because, unlike national and regional carriers, most RLECs do not operate or control transport facilities and networks that can deliver traffic far beyond their local exchange service territories. As with wireline-wireless traffic, a rural transport rule for NNP traffic would relieve RLECs of the onerous and expensive burden of arranging and paying for transport of traffic far beyond their service territories, and allow them to continue to focus on “last mile” broadband deployment and upgrades.

WTA continues to question whether NNP has benefits that outweigh its disruptions and costs. The geographic basis of most existing wireline telephone numbers has significant advantages – for example, allowing switches to immediately send emergency calls to the proper and closest Public Safety Answering Point (“PSAP”) and enabling first responders to readily use telephone numbers to identify the locations where assistance is needed. Whereas it may be argued that an underlying LRN can provide PSAP routing and assistance location information as rapidly as a geographically-based wireline telephone number, it is an unfortunate fact of life that computers, database systems and their connections to the network can malfunction or break down at inopportune times.

Geographic-based numbers also permit callers to easily determine whether the call they are dialing will incur toll charges. While wireless and VoIP adoption and numbering uses will reduce these advantages over time, there are still many wireline telephone numbers in use today and little evidence of customer demand that they be able to port their wireline numbers if and when they make substantial moves. WTA members know their rural customers, and do not believe that significant numbers of them want to keep their existing wireline telephone numbers when they move. Rather, most of their wireline telephone service customers expect to get new

local wireline telephone numbers when they re-locate to distant communities served by different carriers in the same state or in different states.

In sum, WTA remains skeptical whether NNP for wireline telephone numbers has sufficient consumer demand and service advantages to justify its costs and disruptions. If the Commission is nonetheless determined to move forward on NNP, WTA urges it to devote much more attention to the costs and other impacts upon Rural LECs and other small carriers. Given the high costs of switch replacements and upgrades, as well as the likelihood of substantial and increasing dip charges and RTU fees vis-a-vis the small numbers of rural customers likely to demand porting of their wireline telephone numbers to and from distant locations, is a small company exemption technically feasible? If NNP must be implemented universally, can at least database dip and transport charges be limited and minimized?

Respectfully submitted,
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