

1. Thousand-Number Block Pooling

a. 1,000-number block pooling may have limited effect.

The North American Numbering Plan Administration (“NANPA”) currently assigns NXX codes. NXXs generally are associated with rate centers and specific carriers.³ A large majority of NXXs assigned in Montana is associated with rural rate centers in which there are relatively few consumers. Thus, while it is possible for providers to consolidate their number assignments within a currently-assigned 10,000-number block, such an effort may free up more numbers within an NXX for potential reassignment to other carriers and may even create more available NXXs if all numbers within an entire NXX were reassigned to a different NXX; but since there is little, if any, additional demand for the released numbers within rural rate centers, unassigned numbers likely will remain unassigned.⁴ To the extent entire NXXs are vacated, pooling could release additional NXXs that could be reassigned to different rate centers. However, as discussed below, the negative consequences of vacating currently-assigned numbers may exceed any perceived benefits.

In Montana’s more densely populated rate centers, 1,000 number-block assignment may be more effective. However, even in these areas, the limited number of competitive providers already has a sufficient number of NXXs assigned to them to accommodate foreseeable vertical growth within their assigned NXX. It is feasible that a handful of providers could share a single 10,000-number NXX. But, unless there is substantial growth in demand for new

³ *Id.* p.3. “With few exceptions, every geographic telephone number in the North American Numbering Plan (“NANP”) is associated with one and only one rate center. That is, each area code, plus a prefix, is associated with a rate center. For example, 406-235-XXXX is exclusively assigned to Qwest Communications (dba CenturyLink) in Wolf Creek, Montana.”

⁴ “Subdividing” an NXX—sharing 1,000-number blocks among separate carriers using a single NXX—would require carriers to DIP every call and arrange routing to ensure proper call completion. (See further discussion, *infra.*)

numbers as a result of increased population or in the number of providers, then mandatory 1,000-number block number pooling may yield only marginal results.⁵

b. Consumer consequences

The Commission states that “implementation of a new area code in Montana will be costly and confusing for consumers...”⁶ Indeed, if implementation of number pooling results in reassignment of consumers’ existing number assignments, then 1,000-number block pooling will be costly and confusing for consumers, too, albeit on a smaller scale.⁷ For example, many consumers—individual residential consumers and small businesses alike—have requested and been assigned special “vanity” numbers. Residential consumers request easy-to-remember numbers or some other numeric sequence of their choosing. Businesses often request numbers which compliment their identity and have incorporated these numbers in their business marketing and sales activities. (An automobile dealer, for instance, may have a special telephone number, i.e., 123-CARS.) Such special number assignments may occur randomly throughout a 10,000-number block, even if the provider normally endeavors to assign numbers sequentially within 1,000-number blocks. If the consumer’s telecommunications provider is required to relinquish 9,000 numbers within a currently-assigned 10,000-number block, and share the 10,000-number block with other providers, the consumer may be required to relinquish its special number, or change providers.⁸ Alternatively, only completely vacant 1,000-number blocks could be released; or 1,000-number blocks could be released for

⁵ MTA notes that even in areas where the provider has requested a 1,000-number block assignment, NANPA has reserved the entire 10,000 number block. For example, NANPA’s list of assigned numbers in Montana indicates that the entire 10,000 number NXX “604” in Great Falls is assigned to Blackfoot, even though Blackfoot requested only 1,000 numbers.

http://www.nanpa.com/nas/public/assigned_code_query_display.do?method=displayAssignedCodeQueryData.

⁶ *Op cit.* 2.

⁷ In fact, as discussed, *infra*, the costs and confusion associated with number conservation efforts may be greater on a per-customer-affected basis than if the same or similar costs were defrayed on a statewide basis in a new area code implementation.

⁸ Forcing consumers involuntarily to switch carriers raises legal questions in addition to consumer inconvenience.

reassignment, except for any currently-assigned numbers, which would be ported back to the original carrier. However, the latter option would require carriers to DIP every call to determine to which carrier the number belongs, and would require all carriers to populate routing guides accurately and regularly, as discussed below.

Relinquishing a number could entail considerable cost to a small business, as the enterprise would have to change directory listings, stationery and other marketing products. Moreover, small businesses legitimately would be concerned about losing customers in the confusion that would follow a change of the business' telephone number(s).

In addition to special “vanity” numbers used by many small businesses, large businesses often request 1,000-number blocks of sequential numbers within a single NXX. Mandatory 1,000-number pooling may require these large businesses either to change their telephone numbers, switch providers, or share “their” NXX with other companies and/or individuals.

In short, the costs, confusion and inconveniences caused by number pooling—if it results in reassignment of currently used numbers—may be no less than those associated with the implementation of a new area code.

If number conservation measures are only an interim action, intended to delay the time when a new area code is required, then it's possible that the same consumers that are inconvenienced by number conservation measures will be inconvenienced again when a new area code is established. The Commission may wish to consider whether it is more propitious to implement number resource reforms once rather than twice.

c. Technical considerations

Implementing number conservation/number pooling requires a variety of technical actions by carriers both individually and collectively. With an increasing number of telecommunications providers entering the market, there is a risk that number conservation reforms could result in diminished network quality and call

completion rates. The call completion crisis facing consumers in Montana and throughout rural America already is a significant problem, as the Commission well knows.

Telecommunications carriers will need to identify “stray” numbers inside currently-assigned 10,000-number blocks and reprogram switches to bring the numbers into re-assigned 1,000-number blocks. While such an exercise certainly is technically feasible, such action requires at least incremental allocation of additional company resources. Further, carriers would need to populate call-routing databases to ensure that all carriers are aware of new number assignments and calls to newly assigned numbers are rerouted properly.⁹

This national database population requires action by all carriers properly to program their own routing guides. In other words, not only the local provider needs to ensure that local routing guides properly route calls to the appropriate end user, but all carriers need to ensure that their calling protocols “dip” routing databases to ensure that all calls reach the proper end user. As illustrated at the recent call termination workshop held by the Federal Communications Commission (“FCC”),¹⁰ not all telecom providers are appropriately populating their routing protocols to ensure that calls properly terminate to the appropriate end user. This failure to populate calling programs properly is particularly—but by no means exclusively—evident in situations where calls transfer between Internet Protocol (IP) and time division multiplexing (TDM) formats.

In short, while it is technically feasible to implement 1,000-number block pooling, routing guides need to be updated accurately and in a timely manner by local and national telecommunications providers. The risk of “losing” ported numbers—particularly when the number of ported numbers is relatively small on a national scale—is not insignificant. Given the current call termination crisis that

⁹ In addition to locating and properly porting numbers, telecom providers will need to develop consumer outreach and education campaigns to work with their customers to make the transition as smooth as possible.

¹⁰ “FCC Announces Agenda for October 18 [2011] Rural Call Completion Workshop.” Public Notice. DA 11-1715. Rel. October 14, 2011. See, for example, comments of Fritz Hendricks, Onvoy Voice Services, and Martin Corso, TDS Telecommunications Corp.

has befallen rural consumers, adding yet another potential call termination complication may not be advisable at this time, or at least not until the FCC resolves the current call termination problem.

Further, it may be necessary for competitors sharing a single NXX to establish new local trunk groups to facilitate routing of local calls between carriers or to make arrangements with another trunking provider to route local calls to different carriers within an NXX. Thus, sharing an NXX with competitors could impose potentially substantial new costs either by requiring establishment of separate trunk groups or new tandem arrangements. In either event, such additional costs ultimately would be borne by consumers.

d. Review currently-assigned number blocks

In reviewing currently-assigned NXXs in Montana, MTA notes that there may be some 10,000-number blocks that have been assigned to companies that are not currently using them (e.g., YMAX Communications Corp.; Sprint Spectrum; MCI METRO Access Transmission Services; Eltopia Communications; New Cingular Wireless PCS; Lightnex Communications; Pacific Telecom Communications Group; *inter alia.*) The Commission (or NANPA) may wish to investigate whether number blocks currently assigned to Montana carriers are being used by the carriers to whom the number blocks have been assigned.

2. Rate Center Consolidation

As the Commission defines rate center consolidation, a telecommunications provider would

aggregate two or more rate centers into a single rate center so that [it could] use a single [NXX] to serve any customer in the combined area rather than requiring numbers from separate prefixes to serve customers in each of the rate centers that were combined.¹¹

¹¹ *Op cit.* p.3.

As MTA understands this option, consumers in a consolidated rate center would be required to relinquish their currently-assigned numbers (if their number uses an NXX targeted to be vacated) so that a single NXX could be used in multiple rate centers. As with 1,000-number block pooling, this option would lead to similar consumer inconvenience and potential confusion. Similarly, while technically feasible, consolidation would require coordinated, timely and accurate routing database population by local and national carriers. Further, as noted above, consolidation may lead to a “more efficient utilization of telephone numbering resources;”¹² however, with Montana’s small population density and comparatively few telecommunications providers, the overall effect on number utilization may be only marginal.

Moreover, consolidation potentially adds another negative “unintended consequence” in the form of a hidden rate increase on consumers. Calls between rate centers generally are interexchange toll calls, unless an extended area service (“EAS”) agreement, as approved by the Commission, prevails.¹³ Thus, under a rate center consolidated regime—without an accompanying EAS agreement—consumers in rate centers that are consolidated may unwittingly make a toll call even though they may believe they are making a local call when they dial a number with the same NXX.

Consolidation also would require interconnection agreements among multiple carriers required to exchange effectively-interexchange traffic within a single consolidated rate center. Again, while this is not an insurmountable obstacle from a technical standpoint, many Montana carriers have experienced difficulty in negotiating equitable interconnection agreements with certain carriers.

¹² *Id.*

¹³ An EAS agreement itself involves rate rebalancing in which local rates are increased by a certain increment, which is designed to recover toll revenues lost as the result of creating a larger, single “local” calling area instead of multiple exchange areas where calling between the exchange areas otherwise involves toll calls.

Recommendations

In light of the above comments, MTA offers the following recommendations:

- If the Commission proceeds with number conservation measures, MTA recommends implementing number pooling on a prospective basis only; i.e., we do not recommend applying number pooling in a way that would require consumers to relinquish currently-assigned numbers. There are 99 currently available NXXs in Montana.¹⁴ Available NXXs can be assigned, prospectively, on a 1,000-number block basis. (This is not to say that there wouldn't still be technical considerations that could risk compromising call quality and/or increased rates.)
- MTA does not recommend rate center consolidation, as it would constitute a hidden rate increase on consumers. However, if the Commission chooses to adopt rate center consolidation, MTA recommends that the Commission simultaneously adopt rate rebalancing/extended area service provisions for the affected rate center(s).
- It may be appropriate for the Commission to wait for FCC resolution of the rural call termination crisis before introducing additional potentially disruptive elements into an already-critical call quality environment.
- The Commission may wish to work with NANPA to establish whether all carriers are using the NXXs that have been assigned to them and vacate those blocks, if any, which have no end users before implementing further measures.

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http://www.nanpa.com/nas/public/available_code_query_step1.do?method=resetCodeQueryModel

- Experience in other states demonstrates that new area code implementation is not as disruptive as perceived prior to implementation. Statewide consumer education efforts help mitigate disruption. All consumers “share the pain” in statewide area code implementation, rather than only certain consumers who feel they may have been singled out for number conservation measures. Thus, the Commission may wish to consider proceeding directly to statewide area code implementation and avoid having to implement two reforms which may lead to confusion and inconvenience when one reform may be less disruptive and costly.

Conclusion

MTA appreciates and shares the Commission’s interest in promoting efficient number resource utilization. We are concerned about the potentially negative effects of various number conservation measures on consumers who may be required to abandon telephone numbers or incur increased rates.

If the Commission proceeds with number conservation measures, MTA recommends that such measures be applied prospectively in a manner that does not require consumers to abandon their current number assignments. We note that even on a prospective basis, 1,000-number block pooling could impose potentially significant compliance costs, which may be reflected in higher consumer rates. We are concerned that if not implemented properly, number pooling could exacerbate the current call termination problems already afflicting rural consumers.

MTA recommends that the Commission not adopt a rate center consolidation approach to number conservation; but if it does adopt consolidation measures, the Commission should adopt rate rebalancing/EAS provisions simultaneously.

Finally, rather than implementing potentially disruptive number conservation measures, only to be followed ultimately by new area code implementation, the Commission may want to consider proceeding directly to implementing a new area code.

Respectfully Submitted,

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