

**Testimony of**

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## **I. INTRODUCTION**

Good Morning, Chairman Upton, Ranking Member Markey, and Members of the Subcommittee. I am Dorothy Attwood, Chief of the Wireline Competition Bureau at the Federal Communications Commission ("FCC" or "Commission"). Thank you for this opportunity to talk with you about the efforts and progress made by the Commission to optimize the use of numbering resources in the United States and, in particular, to mitigate the impact of area code and numbering exhaust. Although we continue to face some challenges on this front, we are firmly committed to protecting consumers by adopting strategies that prevent premature area code exhaust.

## **II. CONFRONTING THE NUMBERING CHALLENGE**

As many of you know, our country has experienced an explosive demand for telephone numbers in the past decade. The rapid increase in demand has been spurred by the entry of new competitive providers into the marketplace, and is accentuated by the introduction of new services and technologies. Telephone numbers are a vital part of our national, and indeed the global, communications network. They are an essential gateway for businesses and governments. Indeed, for many residential customers, telephone numbers become intertwined with their very identity and with their sense of community. As a result, ensuring the continued availability of telephone numbers for American consumers and our Nation's telecommunications providers remains one of the Commission's highest priorities.

In response to this demand, and as directed by the Telecommunications Act of 1996, the FCC has taken a series of actions to promote more efficient use of numbering resources. These actions are designed not only to prevent area code exhaust in individual communities, but also to prevent the exhaust of the North American Numbering Plan ("NANP"), as a whole. The NANP is the basic numbering scheme for the United States and its neighbors, Canada and a number of Caribbean countries. Exhaust of the NANP will occur when the last available area code is given out. Once this occurs, callers will be required to dial at least 8 or 11 digits, rather than the current 7 or 10, to make a telephone call. Expanding the NANP in this way would have enormous societal and monetary costs with estimates ranging from 50 billion to 150 billion dollars.

The 1996 Act recognized that one of the chief obstacles to controlling numbering resource problems was an absence of industry, economic or significant regulatory control over requests for numbering resources. The system that had evolved over the past 60 years did not promote accountability or efficiency and, in some cases, allowed carriers to misuse the allocation system. The 1996 Act empowered the Commission to tackle this problem and the Commission has developed strong working partnerships with State governments to promote numbering efficiency.

In developing our approach to numbering resource issues, we have sought to: 1) minimize negative impacts on consumers; 2) promote competition by ensuring sufficient access to numbering resources for all service providers; 3) minimize incentives for carriers to stockpile

excessively large inventories of numbers; 4) avoid, or at least delay, exhaust of the NANP; and, more broadly, 5) impose the least societal cost possible, while obtaining the highest benefit for consumers.

### **III. PARTNERSHIPS WITH STATE GOVERNMENTS**

To achieve these goals, the Commission has developed important partnerships with State governments, which enable us to benefit from their expertise and unique knowledge of local conditions and considerations. The Commission has enlisted States' help primarily by delegating significant authority to them to implement area code relief. For example, we delegated to States the authority to determine which form area code relief, an all-services geographic overlay, an area code split, or a boundary realignment, is best in each circumstance, when area code relief is needed. In December 2001, the Commission added another relief option, *i.e.*, a specialized overlay which would allow States, under the right circumstances, to designate a new area code to be used for a specific service or technology, such as wireless phones, pagers, or data lines. In addition, the Commission has delegated to states the authority to conduct trials of new number resource strategies, such as pooling, as I will discuss shortly.

Because our State partners stand on the front lines of battles over numbering resources, they know that frequent area code changes are frustrating, inconvenient and costly to consumers. Area code changes can be burdensome to communities. As a result, the Commission has sought solutions that minimize the impact on consumers and that reduce the need for area code changes. The Commission has also encouraged States to develop relief plans based on efficient number

optimization guidelines, which will help avoid complete exhaust of the NANP and the serious monetary and societal costs that such a result would bring on. Overall, these partnerships with the states have led to innovative and effective solutions that are responsive to the unique needs of local communities.

#### **IV. THOUSANDS-BLOCK NUMBER POOLING**

Another essential step that the Commission has taken is to change the way that numbers are allocated to carriers. One of the major drivers of numbering resource exhaust is our legacy system of distributing numbers to service providers in blocks of 10,000, an entire central office code. Until recently, service providers that needed fewer than 10,000 numbers to serve their customers could only get an entire central office code. Because the unused numbers could not be given to another carrier to provide service to its customers, those numbers would lie fallow in the carriers' inventories and remain unused. Thus, although the actual amount of unused individual telephone numbers was high, the number of available central office codes began to decrease at an alarming rate. Of the approximately 1.5 billion individual telephone numbers currently assigned to carriers, it is estimated that approximately 40 percent are actually being used by end-user customers. The Commission has worked hard to address this inefficiency in the use of numbering resources and we have made significant strides in just a few years.

In 1998, the Commission granted authority to the State of Illinois to experiment with a new system of distributing numbers to service providers that was designed to eliminate the vast amount of numbers that were lying unused in service providers' inventories. This system, known

as thousands-block number pooling, has changed the landscape of number use in this country. Following that first number pooling trial, an additional 32 States were delegated authority to implement number pooling trials within their borders. In March 2002, the national thousands-block pooling program began. Under the stewardship of a neutral, third-party administrator, pooling will be implemented within the largest 100 metropolitan statistical areas ("MSAs") in the country over the next 18 months.

Thousands-block number pooling uses local number portability technology to enable carriers to accept numbers in blocks of 1,000 rather than 10,000. As a result, the same central office code that could serve only one service provider a couple of years ago can now provide numbers for up to 10 different service providers. What this means is that fewer central office codes, and consequently fewer area codes, get used up. It is a way of better using the numbering resources that are already distributed rather than simply going back to the well for more numbers, a well that is by no means bottomless.

Thousands-block number pooling is a success story. In many instances, premature exhaust of area codes has been staved off by pooling. It will be even more effective once wireless carriers begin to participate in pooling later this year. Indeed, it is predicted that the adoption of national number pooling could extend the life of the NANP by more than 20 years.

## **V. ADDITIONAL OPTIMIZATION MEASURES**

In addition to thousands-block pooling, the Commission has taken a number of other actions that promote efficient number use and that should prevent disruption for consumers. Most notably, all providers in the United States that use NANP numbering resources now must closely monitor, track, and report on their number usage based on uniform definitions established by the Commission. Additionally, providers must now demonstrate their need for additional numbering resources with more than subjective forecasts. Providers that fail to do so will be denied numbering resources. These measures provide accountability and create incentives for providers to use numbers efficiently. The Commission has also adopted other measures designed to increase discipline in numbering resource utilization practices, such as mandatory reclamation of unused numbering resources and a requirement that numbers be assigned by carriers to end-users sequentially to preserve the availability of unused blocks of numbering resources to facilitate thousands-block number pooling.

The Commission has also delegated to the states the authority to implement additional measures, such as rationing of numbers following implementation of area code relief; hearing and addressing claims of carriers seeking numbering resources outside of the rationing process; and monitoring carriers' use of numbering resources. To facilitate full participation by the states in these and other numbering resource optimization measures, the Commission has also provided State access to carrier-reported forecast and utilization data for numbering resources within their borders.

Each of these measures should help stave off premature area code exhaust. But the Commission recognizes that our efforts cannot stop here.

## **VI. DEVELOPING NEW APPROACHES**

The Commission continues to seek new approaches and to refine our existing measures. For example, one of the limitations of pooling is that it is only effective in areas where a significant number of service providers can participate. To participate, providers must have systems that use the local routing number ("LRN") architecture, which is the same underlying architecture necessary for local number portability ("LNP"), or the porting of numbers between carriers. Currently, only wireline carriers operating in the top 100 metropolitan statistical areas are generally required to have this capability. Because wireless providers have been granted additional time to develop this capability until November 24, 2002, they have not yet begun to participate in pooling. Wireless carriers, however, have recently indicated that they are committed to participating in pooling by this November. With this prospect, the benefits of pooling may be recognized on a larger scale sooner than expected. The Commission looks forward to seeing this commitment by the wireless carriers fulfilled in the months to come.

As I mentioned before, the Commission has also expanded the area code relief options available to States. Historically, our rules had prohibited service-specific and technology-specific overlays. When the Commission first considered service-specific overlays, it concluded that this approach would place paging and cellular companies at a distinct competitive disadvantage because their customers would suffer the cost and inconvenience of having to

surrender existing numbers and go through the process of reprogramming their equipment, changing over to new numbers, and informing callers of their new numbers. Indeed, until recently, much of the wireless community opposed service- and technology specific overlays because they felt that having a separate area code would place them at a disadvantage with respect to the incumbents.

Because the Commission is committed to extending the life of the current NANP, and in response to requests from state governments, the Commission has reversed the outright ban on service-specific and technology-specific overlays. In taking a critical look at whether the prohibition against these options continued to make sense, the Commission has considered a number of issues, including the perceived competitive disadvantages with service- and technology-specific overlays; whether and how such overlays could be implemented in an efficient manner; the risk that service- or technology-specific overlays which provide numbering resources to only a portion of number users could be underutilized; and whether such overlays could be implemented in a transitional or other manner that would allay such efficiency concerns.

The competitive concerns initially raised by the wireless community seem to have lessened to some extent, although not disappeared altogether. Moreover, the Commission has noted that by temporarily diverting a portion of the demand for numbering resources in existing area codes, service- or technology-specific overlays may help ease the transition to needed area

code relief prior to the complete implementation of pooling. Such an approach might reduce consumer costs and inconveniences.

The Commission has also sought comment on whether it could adopt particular policies to address what is referred to as the "rate center problem." One of the major contributing factors to numbering resource exhaust is the existence of multiple rate centers in each area code. The rate center system was adopted in the 1940s to facilitate the routing and billing of telephone calls. Because, as a practical matter, many service providers obtain numbering resources in each rate center, the Commission has encouraged states to consider and implement rate center consolidation. Rate center consolidation could appreciably reduce the drain on numbering resources. The Commission is mindful that rate center consolidation may be a difficult option for States and service providers because of the connection between rate centers and billing and routing, so we look forward to working closely with States on this option.

In addition to these proposed measures, the Commission continues to examine alternative mechanisms for establishing a market-based solution to improve the use of numbering resources. Under a market-based solution, the Commission might, for example, collect fees from carriers in exchange for blocks of numbers or hold auctions for numbering resources. In considering such an approach, the Commission has asked whether the historical lack of efficiency in this area may be in part due to the failure of existing rules to recognize the economic value of numbers. The Commission will consider all these options with an eye towards promoting efficient use of numbers and minimizing the overall impact on consumers.

## **VII. CONCLUSION**

The Commission has seen tangible benefits from the steps that the Commission and the states have taken. For example, carriers are better managing their inventories of numbers and returning blocks of numbers that they do not need. As a result of the volume of numbering resources returned by carriers, net assignments averaged approximately 350 codes per month in 2001 as compared to approximately 980 codes per month in 2000. But there is still work to be done. The Commission will continue our efforts to improve numbering resource optimization, and look forward to our continuing partnership with the States. Together, the Commission can make significant progress toward our goals of avoiding disruption and costs to consumers, eliminating unnecessary area code changes, and prolonging the life of the NANP.

Thank you, Mr. Chairman, for this opportunity to appear before you today. This concludes my prepared testimony and I would be pleased to answer any questions you or the other members may have.