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

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
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Administration of the )  
North American Numbering Plan )

CC Docket No. 92-237  
Phase 1

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FILE

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FEDERAL COMMUNICATIONS COMMISSION

COMMENTS OF MFS COMMUNICATIONS COMPANY, INC.

MFS Communications Company, Inc. ("MFS"), by its undersigned counsel, hereby submits its comments in response to the *Notice of Inquiry* in this docket, FCC 92-470 (released 1992) (the "*Notice*").

MFS is a diversified telecommunications holding company. Its competitive access provider ("CAP") subsidiaries operate state-of-the-art digital fiber optic networks in the Atlanta, Baltimore, Boston, Chicago, Dallas, Houston, Los Angeles, Minneapolis, New York, Northern New Jersey, Philadelphia, Pittsburgh, San Francisco, and Washington, D.C. metropolitan areas. These networks provide point-to-point dedicated transmission services within each of these metropolitan areas, including circuits connecting end users to interexchange carrier ("IXC") points of presence, connections among and between IXC facilities, and (where authorized) point-to-point private line services between end user premises. Under the Commission's recent *Special Access Expanded Interconnection Order*,<sup>1</sup> MFS has begun providing dedicated access to local exchange carrier ("LEC") central offices for connection to interstate and intrastate special access services in certain markets, and expects to expand these offerings as permanent interconnection tariffs take effect nationwide in 1993.

MFS has also begun providing certain components of switched services in those states where local tariffs permit such offerings. Its subsidiaries provide dedicated access to LEC central offices

<sup>1</sup> *Expanded Interconnection to Local Telephone Company Facilities*, CC Docket No. 91-141, Report and Order and Notice of Proposed Rulemaking, FCC 92-440 (released Oct. 19, 1992).

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in New York and Boston for interconnection to LEC switched services. MFS subsidiaries in New York and Illinois have been granted authority by their respective state regulatory commissions to resell (and, in New York, to provide over their own facilities as well) local switched services. Another subsidiary, MFS Datanet, Inc., provides specialized and enhanced data transmission services designed for connecting computers and computer networks to each other, both within and between cities.

Given this wide and expanding range of locally-oriented telecommunications services, MFS has a direct and substantial interest in technical standards for the interconnection of telecommunications networks. Numbering plans are prime examples of such technical standards—different telecommunications networks must use common signalling systems in order to interconnect and interoperate. For switched services in particular, telephone numbers and other numeric signals are essential for the correct routing and processing of voice and data traffic. The North American Numbering Plan is an essential element in the development of an efficient public telecommunications system comprised of multiple interconnected, and in many cases competing, common carrier and private networks.

Therefore, MFS supports the Commission's timely decision to conduct an inquiry into the administration and future of the North American Numbering Plan ("NANP"). Because of the essential role of numbering plans in creating a foundation for introducing new services and increased competition in existing services, MFS urges that this inquiry be expedited. The Commission should seek to release proposed rules for comment within four months of the close of the comment cycle, and to adopt final rules within six months thereafter. In many cases, carriers will not even be able to complete plans for introducing new services until the basic numbering issues are resolved, so that time is truly of the essence.

In Phase 1 of this inquiry, the Commission has requested comments on the issues of who should administer the NANP, how disputes should be resolved, what other administrative or oversight mechanisms should be used, and how the costs of national administration should be

recovered, and on issues relating to local number portability. *Notice*, paras. 28-35, 41. MFS' comments on these topics are set forth below.<sup>2</sup>

**I. ADMINISTRATION OF THE NUMBERING PLAN**

Overall administration of the NANP is currently provided by Bellcore, an entity owned and funded by the seven Regional Bell Operating Companies. Bellcore assigns most numbering plan codes (such as area codes, carrier identification codes, etc.) itself, with the significant exception that central office codes within most Numbering Plan Areas are assigned by the dominant LEC within that area.

These administrative arrangements unavoidably entail a significant potential for conflicts of interest, since Bellcore's owners are themselves both users of numbering resources and competitors of other users. The existing situation is roughly analogous to permitting a consortium controlled by ABC, CBS, and NBC to assign the frequencies used by independent television stations. Although Bellcore has asserted that its NANP personnel are "semi-autonomous" and do not discriminate in favor of the BOCs, *Notice*, para. 27, the fact remains that these employees are ultimately responsible to their employer and its stockholders, creating numerous incentives and opportunities for both obvious and subtle discrimination. As competition in local telephone service emerges, the risk substantially increases that these individuals—despite their best intentions—will be placed in positions in which carrying out their responsibilities in a truly neutral fashion would be contrary to their employer's interests. This situation is increasingly untenable in an increasingly competitive and pluralistic telecommunications market.

In implementing changes in the current arrangement, it may be useful to recognize that the existing NANP administration function actually includes separate policy and management components. The risk of conflicts of interest and discrimination is most acute in the policy

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<sup>2</sup> MFS is not submitting comments with respect to Phase 2 of this inquiry, concerning Feature Group D access codes, at this time.

function—for example, determining what criteria should be used in assigning central office codes or other identifying codes; determining what specific services may be offered using a particular code (such as N11 codes or the N00 service access codes); assigning new specialized codes for particular purposes (such as caller-pays cellular service); and so forth. Whenever these types of issues have arisen, Bellcore has usually been reluctant to consider any changes to the *status quo*, a position which, while seemingly neutral on its face, obviously benefits the LECs who are the dominant *status quo* users of numbering resources. There is somewhat less risk of discrimination in executing the day-to-day management of numbering resources, *if* the manager is subject to specific and objective assignment criteria and time limits, and is required to report on its performance in a way that would expose any discrimination.<sup>3</sup>

In the face of increasing competition, MFS firmly believes that the time has come for the Commission to reassign NANP administration to a neutral administrator. Although the policymaking process should include an advisory committee or other body having broad-based and non-discriminatory industry representation, MFS would suggest that ultimate policy responsibility be assigned to a single disinterested entity rather than to a committee or forum. It is often difficult for bodies representing diverse private interests, including many direct competitors, to reach agreement on contentious issues of numbering policy. For example, although an industry forum has made considerable progress over the past year in devising guidelines for the assignment of central office codes, this process has taken far longer and been more contentious than anyone expected, and the forum has failed entirely to address the critical question of who will assign CO codes because most of the LECs were unwilling to submit this issue to industry discussion.

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<sup>3</sup> For example, an administrator that desired to discriminate could assign new codes to its owners faster than it did to other parties. In order to prevent such conduct, it would be desirable both to prescribe specific time limits for code assignments, and to require reporting of the actual time taken to assign codes to various entities.

Because NANP codes constitute limited national resources, not unlike the radio spectrum, the numbering administration function ought to be closely supervised by the Government.<sup>4</sup> It may not be feasible for the Commission itself to assume this role, however, due to its limited staff resources. As an alternative, numbering administration responsibilities should be assigned to the National Telecommunications and Information Administration in the Department of Commerce ("NTIA"). NTIA has the necessary technical expertise and contacts with the industry to perform this task efficiently. For the reasons discussed above, NTIA should exercise direct responsibility for NANP policy decisions in a manner consistent with Commission policies; but it may wish to delegate responsibility for the ministerial, day-to-day tasks of NANP management to a contractor or other third party. MFS respectfully suggests that the Commission request that Congress enact legislation authorizing NTIA to recover the costs of NANP administration through a modest fee on users of numbering resources, not unlike the charges now authorized by Section 8 of the Communications Act, 47 USC § 158.

Designation of NTIA (or any other disinterested party) as NANP administrator would not represent any delegation or abdication of the Commission's statutory authority and responsibility for the regulation of interstate communications services. The Commission would continue to resolve regulatory issues such as the terms on which carriers may enter specific service markets, the regulation of prices and other terms of service, and the avoidance of unreasonable discrimination. Likewise, the several state commissions would continue to make these determinations with respect to intrastate services. The responsibility of NTIA (or any other administrator) would be to assure that the numbering plan is designed and managed in a way that is consistent with and facilitates

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<sup>4</sup> Unlike the electromagnetic spectrum, any numbering plan can in theory be expanded indefinitely by using additional digits. Doing so, however, entails substantial costs in terms of reprogramming switches and other equipment, as well as the additional time and inconvenience to the public of remembering and dialing the extra digits. These costs need to be balanced against the public benefits of expanding the numbering plan to accommodate new services and increased consumer demand, and this balancing function is best performed by an agency that is ultimately responsible to the public at large.

execution of these regulatory policies.<sup>5</sup> For example, if one state decides to authorize local exchange competition and another does not, the NANP must be administered in a way that permits the competitors in the first state to assign numbers on a non-discriminatory basis, without necessarily affecting the monopoly carriers in the second state.

MFS also urges the Commission to consider in this inquiry whether the dominant LECs should continue to assign central office codes, and to reassign that function to the central NANP administrator. It is unclear from the *Notice* whether this issue is to be considered. In paragraph 45, the Commission states that it will not consider "the issue of office code assignment" until the industry forum completes its proposed guidelines; as noted above, however, the draft guidelines do *not* address who will be responsible for the assignment function. Therefore, there is no reason for delay in addressing this issue. Central office code assignments hold the same, or even greater, potential for discrimination and abuse, as the overall NANP administration functions discussed above, and should not be performed by an interested party. These codes should be assigned either by the nationwide administrator (NTIA), or by local authorities such as state regulatory agencies operating under consistent nationwide guidelines.

## II. LOCAL NUMBER PORTABILITY

MFS believes that the issue of local number portability is one of the most crucial foundations for future competition in local telecommunications services. There is evidently a strong consumer demand for number portability, as evidenced by the recent introduction of "one-number" calling

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<sup>5</sup> Although the Commission has asserted plenary jurisdiction over the assignment of numbering resources within the United States, see *Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services*, Declaratory Ruling, 2 FCC Rcd. 2910, 2911-12 (1987), *on recon.*, 4 FCC Rcd. 2369, 2369-70 (1989), it must share that jurisdiction as to some issues with the appropriate regulatory authorities of Canada, Bermuda, and the several Caribbean nations that comprise World Zone 1. Therefore, the administrator would have to consult with these nations before taking any actions that might affect their interests, and carry out its responsibilities in a manner consistent with regulatory policies adopted in each of the Zone 1 nations.

services by AT&T, Bell Operating Companies, and other service providers.<sup>6</sup> For obvious reasons, it is inconvenient and costly for customers to change telephone numbers whenever they change carriers, as the Commission has previously recognized in the case of 800 services. *See Provision of Access for 800 Service*, CC Docket No. 86-10, 4 FCC Rcd. 2824 (1989), *on recon.*, 6 FCC Rcd. 5421 (1991).

Customers can change local carriers today by leaving their home or office and using a cellular telephone. Unless they subscribe to a "one-number" service (at additional cost), they must have a separate number for each telephone. Individuals who travel frequently may have multiple cellular telephone numbers, one for each system that they use regularly. Some customers have additional numbers for pagers, voice mail, and facsimile machines, among other things.

This proliferation of telephone numbers is an unfortunate by-product of the technological revolution that has greatly expanded the variety, availability, and affordability of telecommunications services. If, as is widely anticipated, competition in basic local exchange services becomes a reality within the next few years, the problem will be compounded. Just as there now are two cellular carriers in each geographic area, each assigning its own telephone numbers to subscribers, there may be multiple wireline carriers (as well as multiple wireless carriers using PCS technology) in many areas in the future. If users need to be assigned a new telephone number whenever they change from one carrier to another, there will be a clear disincentive to change carriers which in turn could discourage the entry of economically efficient competitors.

The existing numbering system is based on traditional telephone technology in which every central office code (an NPA-NXX combination) corresponds to a single end office switch—either a

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<sup>6</sup> *See, e.g., AT&T Unveils "EasyReach" Service Offering Portable Long Distance Numbers, Selective Call Forwarding, Other Capabilities; Service is Targeted at "Maxi-Mobile" Consumers*, 58 TELECOMMUNICATIONS REPORTS, May 4, 1992, at 8; *BAMS Launches "ContactLine" Personal Telephone Number Service in Baltimore, Washington*, 58 TELECOMMUNICATIONS REPORTS, Sept. 21, 1992, at 13; *BellSouth Enterprises Launches Personal Number Service Trial with Voice, Fax Features*, 58 TELECOMMUNICATIONS REPORTS, Oct. 19, 1992, at 38.

LEC's central office switch or a radio common carrier's mobile telephone serving office switch. (The only exceptions of which MFS is aware are the 700, 800, and 900 service access codes.) Every call dialed to a North American telephone number is routed initially to the single switch associated with the NPA-NXX code; that switch ordinarily terminates the call to the subscriber (or intercepts it if the number is not in service), but may also be programmed to forward the call to a different number.

Number portability is now being achieved in the case of 800 service by using a fundamentally different technology. Once number portability is implemented, an 800 number will no longer designate a particular carrier or location, but instead will designate a customer. Whenever a caller dials an 800 number, the carrier originating the call will be required to query a central database via Signalling System 7 connections to determine the interexchange carrier to which the call should be routed. The database system will also permit an 800 number to be associated with a conventional NANP telephone number, which will be used by the interexchange carrier to route the call to its destination.

As a technical matter, the same basic technology could be used to accomplish number portability for conventional telephone service. Certain NPA-NXX combinations could be designated as "database lookup" codes rather than being associated with a particular carrier's end office switch.<sup>7</sup> Carriers receiving calls dialed to one of these codes would query a centralized (or regional) database on a call-by-call basis to determine the end office switch to which the call should be routed.

Although the technology is available, MFS does not have ready access to information regarding the cost, feasibility, and other consequences of actually deploying a database system for

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<sup>7</sup> At least initially, it is likely that number portability will be needed only in selected geographic areas where competition is most advanced. Therefore, it may initially be necessary to apply the database system only to calls destined for these areas. In the longer term, however, it is likely that telephone competition will be so widespread that number portability will be needed for *all* central office codes.

local number portability.<sup>8</sup> This information is primarily in the hands of the LECs and Bellcore. Undoubtedly the introduction of such a significant technical advance will entail costs, which will have to be recovered in an equitable and non-discriminatory manner from participating carriers; but such costs must be balanced against the substantial and long-lasting economic benefits that will result from creating the necessary technical conditions for vibrant local telephone competition.

The Commission should approach this issue much as it did in the case of 800 number portability, by requiring the local exchange carriers to implement number portability technology on a fixed time schedule. In this case, the implementation time should begin when a LEC receives a *bona fide* request for number portability from a carrier that is authorized under state law to provide telephone exchange service.<sup>9</sup> The Commission should release a Notice of Proposed Rulemaking on this topic as soon as possible, which would provide Bellcore and the LECs with an opportunity to present any relevant information regarding costs and technical concerns that might affect the timing of implementation. Absent any clear and convincing justification for delay, however, MFS believes that introduction of number portability should be required within one year after an eligible carrier requests it.

Some parties may contend that consideration of local number portability at this time is premature, and should await actual competition in basic local exchange service. This argument would raise a serious "chicken-and-egg" dilemma, however, because the availability of local number portability is likely to be an essential prerequisite to customer willingness to consider competitive local service providers. As stated in the *Notice*, para. 24, moreover, long-range planning is crucial to the successful and economical implementation of numbering changes. "For example, the concept of interchangeable codes and the basic plans to make that change were laid out as early as 1962—

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<sup>8</sup> Conceivably, there also may be other technical approaches to number portability.

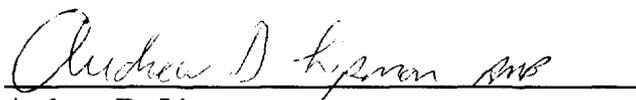
<sup>9</sup> This may include a cellular carrier. The Commission has found that radio common carriers are co-providers of exchange telephone service, and are entitled to the assignment of numbering resources on the same basis as LECs. *See* note 5, *supra*.

many years before their implementation." *Id.* There is much less time available to plan for introducing number portability than there was for interchangeable codes, and indeed the optimal time to begin the process probably has already passed. Immediate advance planning for the inevitable introduction of number portability (for which a need will likely exist within the near future) will pay substantial dividends.

### Conclusion

For the foregoing reasons, MFS requests that the Commission request that the National Telecommunications and Information Administration perform the policy-related functions of NANP administration; and that it propose rules requiring local exchange carriers to implement local number portability within one year of receiving a *bona fide* request from a competing carrier.

Respectfully submitted,



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Dated: December 28, 1992

**CERTIFICATE OF SERVICE**

I hereby certify that on this 28th day of December 1992, copies of Comments of MFS Communications Co., Inc. were hand-delivered upon the following:

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