

500 service provider portability:

The INC Report on PCS N00 Portability indicates the need for regulatory guidance in four areas (which NYNEX does not specify) and calls for an implementation schedule of 48 months. NYNEX supports the Report if the four areas of concern are adequately addressed and the integrity of the time line is maintained (19).

OHIO PUBLIC UTILITIES COMMISSION

Interest: State regulator

Importance of number portability:

Number portability is paramount to the success of introducing competition into the local exchange (1).

Service provider number portability:

New entrants have unanimously indicated that business subscribers' inability to retain their telephone number is often the deciding factor in a competitive choice (1).

Location portability:

Location number portability will further promote competition and offer telephone subscribers much greater choice (3). Any solution to service provider portability should be easily migratable to location number portability as technology and market demand develops (3-4).

The FCC's role in number portability:

The states are in the best position to make number portability a successful reality in the near-term by continuing to assist the industry in developing and implementing the most appropriate portability solutions for their respective states (2). The FCC should not mandate technical solutions, but rather should coordinate the industry standardization of all technical solutions that might be tailored to suit individual market and technical needs of each state. The time to develop a national solution would delay the deployment of portability (2). If the FCC begins a process to select one national solution, competitive entry is likely to be delayed as carriers pull back from faithful negotiations in the face of potential, long-term unknown financial and competitive impacts (3).

Cost recovery:

The FCC should also focus its attention on issues of cost and cost recovery. The FCC should foster development of regional forums to consider and resolve these issues. Alternatively, a new Joint Board could be appointed if it is devoted to these issues and is given a definitive sunset

Interim measures regarding number portability:

While remote call forwarding and direct inward dialing have technical limitations, they are acceptable interim alternatives. No time or financial resources should be devoted to development of better interim alternatives on either a state or national basis; several states are looking at long-term solutions with possible implementation beginning as early as 1996 (4).

OMNIPOINT CORPORATION

Interest: PCS licensee

Importance of number portability:

Service provider number portability:

Number portability supports competition because of high transaction costs related to non-portable numbers (2-3).

Service portability:

Service portability supports competition by advanced services (like PCS), because an extra number is a burden on customers (2-3).

Location portability:

Location portability provides benefits and should be encouraged and ensured by the Commission (5-6). Portability on a regional basis should be a near-term goal (5). Location portability should be encouraged through required non-geographic NPAs or improved VLRs (Virtual Location Registers), which are used for roaming (6).

The FCC's role in number portability:

A strong role would be consistent with Congressional encouragement of improved communications service and competition, as well as Commission policy in implementing PCS and choosing large MTA/BTA PCS service boundaries (4). A national approach is needed to avoid inter-state conflicts, and preemption may be necessary (5).

Long-term solutions regarding number portability:

National number portability should be a long-term goal (5). The Commission should set a date certain for service portability, or set timetables for the resolution of certain issues if delegated to industry groups and organizations (6).

Cost recovery:

Each carrier should pay the costs of improving its own networks and equipment to benefit customers of cost-efficient networks, while all providers should pay their "fair share" of common costs (6).

OPASTCO

Interest: Association of rural telephone companies

Service and location portability:

There are no federal policy objective serviced by nationwide deployment of service and location portability (13). Deployment of service portability will be driven by the marketplace (14-15). Locations portability would require significant modifications to LEC networks, billing and collecting procedures, and dialing plans and cause customer confusion (15). Customers that desire number portability beyond the geographic scope of their wire center can make a one-time change to a 500 number. If the Commission does not want to use 500 numbers as a permanent location portability solutions, another option would be to set aside a group of numbers specifically for this purpose (16).

The FCC's role in number portability:

Industry organizations should take the lead in developing solutions to number portability, and the FCC should monitor their progress (17). If industry organizations are unable to resolve specific issues and request guidance, only then should the Commission become directly involved. It is still too early to establish deadlines for the resolution of certain issues, but it would not be unreasonable for the Commission to set dates for industry groups to report back on their progress (17-18).

Cost recovery:

IXCs should be responsible for paying the cost of the data base query when an interLATA call is made (18).

Other: Number portability would have adverse consequences for small LECs and their rural customers (2). Loss of even one high volume business customer is devastating to the remaining subscribers (3). Service provider portability would encourage alternative providers to cherry pick the best customers, forcing higher-cost residential subscribers to support stranded investment and lost economies with higher rates (3). In addition, a portability requirement would prematurely force expensive switching software upgrades and, in some cases, require complete switch replacement (4). A portability mandate may delay for many years investment in distance learning, telemedicine center, and Internet connections (7-8). If a number portability mandate is nonetheless issued, its absolutely essential that it include exemption, modification, and waiver provisions for rural telcos (9-12). Any service provider portability requirement should be reciprocal (13).

PACIFIC COMPANIES

Interest: RBOC and associated companies

Importance of number portability:

Service provider number portability:

FCC should focus on service provider number portability because it will give consumers greater personal mobility and flexibility, and will help bring about competition among alternate providers of local telephone and other telecommunications services. Service provider number portability is primarily an issue of local competition, which is imminent. (2, 11-12)

Finding the best way to allow changes of service providers, while staying at the same location, with continued use of historic NANP numbers as the network address to terminate and originate calls should come before service or location portability. (2-3)

Service provider number portability is not such a large barrier to entry. Others have overstated demand for it based on flawed research. (3-5) Superior research shows that CLECs can capture large percentages of the market without number portability through discounting and other incentives. Number portability only adds approximately 10% more customers. (3, 6-8)

Wireless providers and customers will probably have similar expectations if operating basic local exchange service. However, if operating traditional wireless services, wireless carriers with dedicated NPA-NXX codes for assignment may not wish to make these numbers portable to other wireless carriers. (Note that number transferability is different issue.) Wireless customers may be less concerned about number portability since they may not publicize their wireless number due to being charged for calls originated and received. (8)

Routing calls based on all ten digits, as required by number portability, places the same technical burden on all carriers, regardless of the technology deployed by the other service provider. Any chosen technical method can apply to both wireless and wireline customers. (9)

FCC should encourage full participation by all users of numbering resources. (9)

Service portability:

Service portability should be developed through market forces. (25-26) The inability to take POTS number to new ISDN service has not necessarily hurt demand for ISDN services. (25)

Location portability:

Location portability should be approached after service provider number portability is solved. (26) Mandating location portability would challenge the continuation of the NANP and confuse end users who could no longer tell the location and rating of a called number. (26) Location portability also would require redesigning the whole network and creating a national database query system. (26-27)

There are no studies showing demand for retaining numbers when moving outside the immediate area. (27) Notifying end users of the charge for calling a location-ported number would require adding considerable switch hardware and software resources. (27) In addition, location portability may interfere with emergency call identification, operator and directory assistance services, and billing systems. (27-28)

The FCC's role in number portability:

The FCC should consider state trials and state commission policy decisions. (9) It need not mandate one uniform solution if various solutions are interoperable, but should develop national guidelines enabling the industry to develop compatible number portability solutions. (9, 12)

The FCC should encourage industry to review and try to minimize demands portability will place on network capacity. (2) It has jurisdiction to ensure fair and efficient number portability, (12) and should consider INC numbering assignment guidelines and have NANC address efficient use of numbers. (12)

There is insufficient information now to impose implementation deadlines. The FCC should request informal progress reports from INC on portability solutions. Technical and performance standards should also be developed through other industry committees, such as Committee T1. (12-13) Finally, the FCC should encourage industry to issue technical compatibility guidelines with goals for architectures of: (1) unambiguous routing information and addressing; (2) common query platform; (3) internetwork signaling and transmission compatibility; and (4) common interfaces for ordering, billing and other administrative functions. (13-14)

Long-term solutions regarding number portability:

"Release to Pivot" (RTP) proposal is the entrance architecture best suited to allow integration into current network designs and does not require investment into alternative databases or major infrastructure changes. (15)

- RTP will minimize database queries as it is the only proposal that does not rely on external database queries for carrier and routing information. Based on standard network interconnections, it is compatible with other query/trigger strategies and with the routing and addressing algorithms of other service providers' networks. (18-19)
- RTP routes efficiently because it retains the user's network address and utilizes information already in the network to route ported calls. It is also designed for any carrier's switch. (19)
- RTP applies only to ported numbers instead of assigning pseudo numbers for routing, thus minimizing number exhaust. (19)
- MCI Metro proposal would quickly consume NPA resources, complicate NPA code routing translation and number administration, impact switch and SS7 network resources greatly, and require creation of standards. AT&T proposal would require switch development, creation of standards, and database queries on essentially all calls in areas of portability; also the Location Routing Number is not an open industry standard. ELI proposal requires database dips on all calls, switch development, standards, and other costly complexities. (20-21)
- Where most calls are not ported, query by originating service provider is unnecessary and expensive. In RTP costs are proportional to presence of number portability calling in network. Investment and cost recovery are directly related to market conditions. (21)

All proposals will take at least three years to deploy -- another year of design work and then one to two years to implement. (15-17)

The mechanism by which portability is provided should be transparent to the customer. The solution should work with emergency 911 system. Portability should be consistent with customer expectations, fair to incumbent and entrant service providers, scaleable and interoperable from local to national networks, and economically reasonable. (22) In addition, adverse impacts to customers who do not want number portability should be avoided, and all service providers participating in number portability should also participate in its development, deployment, and administration. (10)

All service providers offering portability within the same specific geographic area should interconnect and allow for call completion. Method of interconnection is decision for provider requesting interconnection. (10-11)

Cost recovery:

Cost recovery for interim portability is being appropriately addressed at the state level. In California, nominal charges to the CLEC may be passed on to the end user. (30)

FCC should encourage competitively neutral cost recovery for all funding parties of long-term number portability solutions. (10) Service provider number portability cost recovery should be competitively neutral with costs spread across all service providers, not just incumbent LECs. (14) Cost recovery should be designed according to the architecture of the solutions adopted. (14)

Interim measures regarding number portability:

While both Remote Call Forwarding (RCF) and Direct Inward Dialing (DID) are technically feasible, RCF is easier and less costly to implement because it is administered on an individual number basis. (28) Interim solutions have benefits of time, availability, cost, and end user impact because technology already exists. Limitations of RCF and DID are those inherent in the technology and those created by using them for number portability. (29)

800 portability model for POTS portability is inappropriate. A centralized SMS can efficiently administer the one small 800 master database, in which all entries can be stored in primary memory, thus reducing access time during call processing. Service provider number portability will probably need multiple databases with independent data. Also, the entire database will not be able to be stored in primary memory. (24)

Any database architecture design must be flexible so that databases and islands can merge into national connectivity. (24)

500 service provider portability:

Feasibility of providing PCS N00 service provider portability in a switched-based translation environment depends on service order process required for PCS N00 deployment and manner of rating and charging of PCS N00 calls, both of which depend on the relationships between the service providers. (23-24)

PAGING NETWORK

Interest: Nation's largest paging carrier

Importance of number portability:

It is the advent of potential competition in the two-way, interactive voice marketplace that is driving number portability. To the limited extent paging/messaging is a candidate for portability, it is as part of a larger network of networks, not because of a lack of vigorous competition (3).

Location portability:

Local portability is expensive, and the expense would increase as the portability area is expanded. Local portability also would cause customer confusion, absent education efforts (15-16).

The FCC's role in number portability:

The Commission should take into account the costs of any portability plan, and adopt only that plan(s) which can be implemented in an economically efficient manner (2). A federal plan is needed to assure seamless, cost-effective and non-discriminatory implementation for both the wireline and wireless local exchange industries (5). The Commission should first compile federal guidelines with as much specificity as possible and impose a specific time table on the most appropriate standards-setting organization. Second, the Commission at a specific point in time should determine after notice and comment the degree to which the proposed standards meet its guidelines and resolve issues on which no consensus could be reached (5). The federal guidelines would establish minimums for the states that are necessary to preserve a federal plan and promote affordability (7). The federal plan also should take into equal consideration both wireline and wireless long-term portability, although not necessarily implementing the two at the same time (7).

Long-term solutions regarding number portability:

The federal guidelines should include the following points: no service or economic degradation (including delay in processing paging/messaging calls and increased paging industry costs caused by additional LEC network hold time during data base dips) (10-11); efficiency of telephone number use (no use of call forwarding, which employs two numbers to one address) (12); equitable apportionment of costs of network portability solutions (13; see below); consideration of service provider, service, and geographic portability sequentially, each on its merits and subject to its own cost/benefit analysis

(14). Some of the proposed solutions will require retrofitting of paging switches and other network modifications; costs escalate as one moves from service provider to service to geographic portability (14).

Cost recovery:

The direct benefits of long-term number portability will not accrue to nearly the same extent, if at all, in the paging/messaging industry; that industry and its customers should not be required to bear associated expenses. Nor should costs be borne only by new entrants (13).

Interim measures regarding number portability:

There is no need for interim number portability to achieve competition in the paging/messaging marketplace (8). The Commission should adopt interim solutions only for those markets which require it to achieve competitive parity (2). The costs of interim portability would run one-half to one-third of the monthly rate for local paging service (8-9).

Services excluded from number portability:

Paging/messaging services should be excluded from interim number portability (8).

SBC COMMUNICATIONS INC.

Interest:

Importance of number portability:

Service provider number portability:

The FCC should adopt the following definition: Allows an end user to retain the same geographic or non-geographic telephone number when changing service providers. Among wireline service providers, this most clearly meets emerging customer needs and is supported by both service providers and customers. Supports service provider portability for wireline providers when the following conditions are met: sufficient end user demand exists, those benefitting from the service are willing to pay for it, adequate cost recovery mechanisms are available, and the network architecture has been identified and agreed upon. Before service provider portability is mandated, a cost mechanism must be developed so that the cost causers bear the cost of implementation. Existing technology does not support service provider portability between wireline and wireless services. (4-6)

Service portability:

The FCC should adopt the following definition: Allows an end user to retain the same geographic or non-geographic telephone number when changing from one type of service to another. Although one might believe that customers replacing existing services with ISDN would prefer to retain existing phone numbers, Southwestern Bell's experience is that ISDN service is ordered as an additional service, not as a replacement and that requiring a different phone number did not dampen demand. If ISDN were burdened with additional costs, such as for number portability, the growing demand for ISDN and any other similarly burdened new services would be reduced if not eliminated. Therefore, the FCC should not mandate service portability. (4, 7-8)

Location portability:

The FCC should adopt the following definition: Allows an end user to retain the same geographic or non-geographic telephone number when moving from one permanent physical location to another. The FCC should limit its consideration of the deployment of location portability to telephone number portability within a defined geographic area--specifically, the metropolitan calling scope of a wireline carrier or the geographic area in an NPA within which all calls are placed on a local basis, whichever is larger. The commenter believes that national portability means the same type of location portability

in all metropolitan areas and not that an existing NPA number could be moved to another NPA. Allowing this would confuse customers and upset billing systems. For customers desiring a number portable outside their NPA, a personal communications service (such as 500 service) is a more viable alternative. (4, 7-8)

The FCC's role in number portability:

Supports the FCC's assumption of a leadership role in development of a national number portability policy, urges it to focus on broad policy development. The FCC should determine the type(s) of portability to be offered and define the areas of coverage based on an evaluation of the costs and benefits of each. The FCC should then defer to the expertise of industry organizational and standards bodies with respect to the technical details of the implementation of any numbering policy. (2-4)

Long-term solutions regarding number portability:

Any form of permanent portability solution should be driven by end user demand. In competition, the most important factors are price, service quality, and attractive services packaging, not number portability. Regulatory decisions regarding number portability should be approached in the following order: the FCC should provide (not mandate) a clear and comprehensive vision of the final form of number portability; it should determine whether sufficient end user demand exists to warrant deployment of such portability; it should initiate a thorough evaluation of the costs and benefits of the telephone number portability vision; the industry should determine the proper rate design based on the broad framework established by the FCC and on the costs of various elements of such designs, and the FCC should determine whether new services, restructured services, and/or exogenous treatment should apply, with flexibility allowed for establishing appropriate rate elements for cost recovery. Wireless issues should be considered separately. (9-10)

Any long-term solution to number portability will require significant changes that must be considered. Detailed descriptions of these difficulties are included in the appendices. (15)

Remote call forwarding is not a viable solution for long-term number portability. It would increase the potential for service and a number of other problems. Similarly, direct inward dialing is also not a long-term solution because of the large number of problems that would be created. (17-18)

The FCC should not consider systems design until a thorough systems analysis is completed. The FCC should allow this Notice to complete its cycle and then issue a broad policy regarding number portability requirements. Then industry groups should begin the process of data base design. The FCC should not evaluate submissions at this

time, but let industry groups examine the proposals. The industry should define a uniform technical solution consistent with the FCC's number portability policy. The policy outlined by the FCC will determine the parameters. It appears that if service provider portability with location portability within a limited geographic area were implemented, the best solution might be AT&T's proposal for Network Routing Address, Location Routing Number, addressing approach, with a flexible architecture that would include terminating-end queries. However, if location portability within a larger area were included in addition to service provider portability, the MRA approach would require that switches with ported numbers support numbers with potentially hundreds of different NPA/NXXs. If service provider portability were to be implemented along with location portability within a large area, US Intelco's/ELI's CNA/NNA approach may be the best solution. (19-22)

Does not support MCI's proposal because it is unclear how the MCI Metro proposal permits geographic identification of the called number for rating purposes. (22)

Supports the creation of an independent, neutral industry organization to own and operate the necessary data bases and processes. It should not be under the purview of any existing industry forum. The organization should be comprised of key industry participants with regular rotations. Funding should come from all industry participants on a competitively neutral basis. (23)

Cost recovery:

The FCC should consider two facets in devising a competitively neutral cost recovery mechanism. First, the mechanism must not force either the incumbent LEC or the ALEC to charge prices that place them unfairly at a competitive disadvantage. Second, the regulatory framework created to implement number portability must impose costs equitably on both LECs and ALECs. All the costs should not be imposed on the incumbent LEC. (12-13)

Until there is a clear consensus on the type and extent of number portability, the costs of implementation cannot be determined and any discussion about a rate design framework would be highly speculative and it would be premature for the FCC to try and specify the rules needed. (13-14)

900 service provider portability:

There are no significant similarities in applications provided over 900 and 500 dialing plans, and the FCC should not consider them together. Service provider portability for 900 service will not generate benefits sufficient to offset the cost of implementation, and it is not likely to be important to 900 service customers because they have not established number recognition and there is still small demand for 900 services generally. The

commenter does not object to the FCC's adopting a set of broad guidelines on non-geographic numbers and service provider portability as long as the FCC does not establish that all non-geographic numbers, under all circumstances, must be service provider portable. The 800 database cannot be easily modified to handle 900 service without significant hardware and software modifications and upgrades. (24-28)

Other:

Wireless number portability has unique problems associated with it and should be considered separately. These problems are considered in one of the appendices. The FCC should defer to the industry committees to further define the potential impact on wireless service, particularly roaming, to develop standards and determine whether wireless portability is technically feasible, practical, and desirable. (15-16)

- Appendix A A Permanent Long-Term Solution for Service Provider Portability Should not be provided in a Switch-Based Environment; Rather, a Data Base Solution Holds Some Promise
- Appendix B The Impact of Various Types of Permanent Number Portability on Operator Services Will Be Significant
- Appendix C The Impact of Various Types of Permanent Number Portability on Toll and Assistance Operator Services Will Be Significant
- Appendix D The Impact of Various Types of Permanent Number Portability Solutions on Basic Directory Assistance and Directory Publishing Will be Significant
- Appendix E The Impact of Various types of Permanent Number Portability Solutions on LIDB Services Will Be Significant
- Appendix F Wireless Number Portability Presents Unique Problems and Issues

PCS PRIMECO

Interest: PCS licensee

Importance of number portability:

Service provider number portability:

Supports service provider portability in order to promote competition and provide personal mobility (3-4).

Location portability:

The benefits of nationwide location portability are less evident. This kind of portability seems unlikely to stimulate competition to the same degree, is technically more difficult and financially more burdensome, and likely to confuse consumers (4). Within a more limited area such as an NPA, location portability may generate greater demand (4n.4). A system that uncouples telephone numbers from geographic locations must have a means of routing and rating; creation of such a system will be cost-intensive and increase processing time (5).

The FCC's role in number portability:

Development and implementation of a number portability system will require uniform national standards and participation of all telecommunications providers (8). The FCC must draw together all interested parties and help them reach agreement. To this end, the FCC should convene an industry group comprised of all affected segments; it may wish to establish a more formal advisory committee. The group should be directed to develop recommendations within a specified time. Its recommendations should go out for public comment (9-10).

Long-term solutions regarding number portability:

Differences in wireless and wireline calling boundaries will have to be reconciled if wireless systems are to be capable of supporting number portability (6). Each of the proposed solutions has limitations (6-7). The system agreed upon must permit features to follow the customer (8). Number administration will have to be centrally managed (8).

PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION

Interest: Association of commercial and private mobile service providers

Importance of number portability:

Where technically and economically feasible, service provider and service portability can support increased competition, particularly in the local exchange; facilitate the ability of CMRS providers to offer local exchange and mobile services using the same number; help ameliorate number exhaust concerns; and increase competition between and among CMRS providers (5)

Location portability:

The Commission should take a cautious approach to location portability because of technological and operational complexities (6).

The FCC's role in number portability:

Federal action is the most appropriate means of implementing number portability policies. The unique characteristics of the numbering issue make concerted industry action unlikely (7). Any action must be uniform to maximize the utility of portable numbers (7-8). The Commission should expeditiously promulgate policies and goals, and work with standards bodies to transform these policies into specific standards (8). Federal actions is vastly preferable to state action; a uniform, national system likely will be less costly, more efficient, and more conservative of numbering resources (8). Most of the existing state proceedings have focused almost exclusively on wireline systems; substantial impacts to wireless billing systems, networks, fraud detection and roaming are anticipated if wireless carriers participate (8-9).

Long-term solutions regarding number portability:

No plan should be implemented until there is general consensus that it is rational and allows for modular implementation of service provider portability, service portability, and local location portability in its first phase, and wider area location portability in later phases if required to meet the Commission's objectives. The permanent plan also should accommodate the vast number of new wireline and wireless technologies which might ultimately require portability (9-10).

Cost recovery:

The funding mechanism must not discriminate against new entrants, services, or technologies. For example, wireless carriers should not be overcharged for the shared use of wireline switches, cables, and data bases (10).

Interim measures regarding number portability:

The Commission should not impose interim solutions on wireless carriers. They are inherently wasteful of resources, extremely expensive, and technically compatible with roaming (9).

Services excluded from number portability:

At least for the foreseeable future, portability may be technically and economically incompatible with certain CMRS services, such as paging (5).

SCHERERS COMMUNICATIONS GROUP

Interest: Long distance reseller.

Importance of number portability:

Service provider number portability:

By allowing customers to change providers without changing telephone numbers, number portability will increase local exchange competition (1-2).

Location portability:

Any portability plan which extends beyond a local calling area will need to address the following issues: (1) porting numbers across NPAs will limit the numbering resources available; (2) some numbers can not be ported across NPAs, as the NXX-XXXX number is already in use in the other NPA; (3) local and long-distance calls will be indistinguishable; (4) E-911 systems would require costly data base updates (1-2). If portability is extended beyond a local exchange, it will be difficult to bill for toll calls. (3) Accordingly, portability should be limited to the local exchange. If, however, portability is extended beyond the local exchange, a nationwide data base of all geographic and non-geographic portable telephone numbers should be created, modeled on the 800 number data base (2-3).

The FCC's role in number portability:

Favors uniform nationwide standards to be developed by an industry task force with FCC guidance (3). There should be strict compliance deadlines for the implementation of a national portability database (3).

Cost recovery:

The portability data base should be financed by a per telephone number charge, as is the 800 data base (3).

900 and 500 service provider portability:

900 and 500 service provider portability will not benefit customers. Although rates might fall due to increased competition, initial fees will increase due to carriers' increased need to cover the bad debt of customers who change carriers without paying their bills (3-4). Both 900 and 500 numbers should be incorporated into the nationwide database of portable geographic numbers (4). Assignment by NXX code should be eliminated for both 900 and 500 numbers because calls can now be routed by XXXX code (4).

SPRINT CORPORATION

Interest: IXC, LEC, wireless service provider

Importance of number portability:

Service provider number portability:

Although number portability generally stimulates competition and increases consumer choice, the focus should be on service provider number portability because the benefits are readily discernible and market demand appears to exist (2). This conclusion is based on experience in the 800 services market and is supported by every survey on this topic (4-7).

Service and location portability:

There is insufficient information to determine whether market demand exists for service and location portability (19).

The FCC's role in number portability:

The FCC should take a proactive and aggressive role in directing service provider number portability to ensure that a nationwide, uniform and equitable system is implemented in a reasonable time frame (7-8). It should also ensure that the solution adopted is pro-competitive and nondiscriminatory, and should take an active role in numbering policy development (8).

As with mandating 800 number portability, the FCC should be involved in many specific issues relating to implementation of a system of local number portability, such as prescribing uniform nationwide network interfaces, specific performance criteria, and a date certain by which a satisfactory system must be implemented (8-10). Technical specification can be assigned to industry fora under the auspices of the North American Numbering Council, subject to oversight by the FCC (10). National uniformity will provide consistency, which tends to promote efficiency (11).

Long-term solutions regarding number portability:

The FCC should require local service providers to deploy the permanent portability solution in response to a *bona fide* request from a certified carrier based on the size of the market, with larger MSAs phased in before smaller ones, because competition there logically will be greater (12).

At a minimum, the solution should permit the service provider to control the routing of calls for its customers and provide for seamless service to the end user without degradation for both incoming and outgoing traffic (13). In addition to being uniform nationwide and deployed within a specified time frame, other criteria under which a number portability solution should be evaluated include the flexibility of the system with regard to service provider, location and service portability for geographic and nongeographic numbers, flexibility to permit offerings of unique services by a single carrier, efficient use of numbers, and avoidance of giving bottleneck control of calls to any service provider or industry segment (15).

The FCC should look to industry groups, coordinated by the North American Numbering Council, to develop the portability standards, and then adopt those standards as mandatory if they are found to be reasonable and feasible (14).

Cost recovery:

Each service provider should be responsible for recovery of its own costs of implementing geographic number portability, with one possible mechanism an amortizable surcharge on end user customers in the markets in which the permanent solution is available (12-13).

Interim measures regarding number portability:

Both interim measures under consideration--Remote Call Forwarding (RCF) and Flexible Direct Inward Dialing--are inferior to true service provider portability for four reasons: (1) they permit the incumbent LEC with bottleneck control and access charges over the call; (2) they use scarce numbering resources inefficiently; (3) they are technically inferior, because of difficulties in transmitting information to accompany the calls appropriately, such as the carrier identification code and other information related to 911, caller ID, and automated call back; and (4) the two separate calls result in higher set-up time (17). The FCC should require implementation of a permanent, AIN-based network topology as a prerequisite to RBOC entry into the interexchange market (19).

In light of the necessity of interim measures, RCF should be preferred because it ubiquitously supports more CLASS functionality and because it is easier and cheaper for both the incumbent and the competitive local service provider to install (18 & n.15). Either way, the incumbent carrier should charge the competitive local service provider long run incremental cost because anything higher would have a chilling effect on competition (19). While the existence of a proven technology does obviate the need for another interim solution like MCI's unproven "Carrier Portability Code" proposal, the existence of interim measures should not be used as an excuse to delay unreasonably the implementation of a permanent solution (18).

900 and 500 service provider portability:

There is insufficient information to determine whether market demand exists for 900 or 500 service provider portability. Surveys should be conducted to determine whether demand exists for portable nongeographic numbers, and portability should not be mandated until market demand is demonstrated (19-20).

Other:

Attachment: "Pacific Bell's Survey Confirms the Importance of Geographic Number Portability"

TDS TELECOMMUNICATIONS CORP.

Interest: Holding company for 100 primarily rural LECs

Importance of number portability:

Supports a general policy encouraging portability of local telephone numbers within a service area from one authorized local exchange provider to another to benefit consumers. (1)

The FCC's role in number portability:

The FCC should assume a leadership role in promoting nationwide technical compatibility and standards so as to avoid the proliferation of many uncoordinated technical solutions. The FCC should rely on the expertise of industry technical and standard-setting mechanisms to achieve technical uniformity under general FCC supervision. However, the FCC should not mandate the implementation of local number portability or preempt state authority even for changes in service provider in the same market. Until new legislation is passed by Congress and approved by the President, the FCC should be cognizant of the statutory limits on its jurisdiction over local wireline telephone service competition. (4)

Long-term solutions regarding number portability:

The FCC, as Congress has done in proposed legislation, must take account of how proposed policies could affect different LECs and their customers in different ways. The cost of providing local provider or geographic location number portability may be higher than elsewhere, including upgrades to equipment, software, and access to AIN and SS7 capabilities. Would support a general, non-mandatory policy of evolving toward a model that would seek to: make available local service provider, location and service portability in response to market demands, preserve existing network capabilities and offerings such as CLASS services, maintain 911 and operator-assisted calls, minimize database queries, support existing billing, rating and customer knowledge of when local, state or interstate toll charges would apply to a call, and prevent application of routing and other responsibilities designed to benefit entrants to existing providers unless such entrants are subject to the same obligations.

Cost recovery:

Unless the FCC decides that number portability should be available on a universal, nationwide basis -- and devises a mechanism for footing the bill for above average costs without overburdening customers who will benefit much, if not all -- only those who

directly benefit from market-driven solutions should pay. The FCC should not assume that customers support a blank check policy of maximizing number portability at any price. It is of great importance not to saddle those rural, residential and small business customers -- who will not soon or perhaps ever have a choice of competitive local providers -- with the costs of assisting competitors to serve urban and large business users, as well as the few most profitable rural customers. (1-3)

The FCC's goals must be to recover costs from those who benefit and prevent rate increases to those who will not benefit. To prevent deaveraging pressures that will likely saddle customers without competitive options with a large share of the costs, the FCC should either (a) provide high cost support at network-wide expense or (b) obtain cost recovery for portability from competing providers who benefit and their customers, or at least from customers with competitive choices. In addition, if small or rural LECs are forced to invest in improvements for number portability, investments in other improvements implementing an information-rich public network may be deferred or foregone. For rural and residential customers, the costs of implementing number portability are likely to be high with speculative benefits at best. (9-10)

Interim measure regarding number portability:

Current offerings of Remote Call Forwarding and Direct Inward Dialing in areas where competition has been authorized are providing a market-driven approach. LECs should be allowed to continue these offerings. (2)

Services excluded from number portability:

Even if the FCC requires large LECs to implement service portability, it should not mandate implementation for small, rural or mid-size LECs unless it can conclude on the basis of factual analysis that the benefits to their customers will exceed the costs to be recovered from them. (5-9)

900 and 500 service provider portability:

Unlike 800 services, 500 service is new and 900 service demand remains uncertain. If customers want service portability and are willing to pay all of the associated costs, the operation of the marketplace should lead to the availability of service portability. (10)

TELECOMMUNICATIONS RESELLERS ASSOCIATION

Interest: Association of domestic interexchange and international resellers and underlying service and product suppliers

Importance of number portability:

Service provider number portability:

Service provider portability is in the public interest for the reasons given in the NPRM (3-4). The link between service provider portability and true local competition cannot be overemphasized (5). Addition of service providers, including resellers, will produce numerous benefits, as the Commission has recognized in numerous proceedings (5-10).

The FCC's role in number portability:

Carriers will not make service provider portability available without government compulsion (10-12). The Commission should organize a task force of industry, consumer, and governmental interests to identify and resolve technical issues associated with a uniform, nationwide plan for service provider portability and to conceive a national plan for public comment (13). A key element of any plan should be a date certain for completion and a target date for implementation (14). State interests can be accommodated through the multi-sector task force (14). The Commission has authority to preempt because local use and interstate use if numbers cannot be separated; preemption is desirable because inconsistent state regulation could undermine federal efforts to establish a uniform, nationwide plan (15).

Interim measures regarding number portability:

The Commission should articulate which of the interim measures would be suitable as a transitional mechanism and should specify the manner in which the industry will transition to the permanent plan (16).