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March 12, 1996

Ms. Regina Keeney
Chief, Common Carrier Bureau
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: Number Portability CC Docket 95-116

Dear Ms. Keeney,

The following responds to your inquiries about the status of number portability initiatives undertaken by individual states, certain characteristics of a number portability database solution, and cost recovery issues.

Activity in the States

Many states have begun the process of studying the number portability options proposed by the industry. The following table summarizes this activity.

States that have selected a solution[1]	States with permanent number portability activity	States which have no activity or have indicated they are awaiting FCC action
Illinois	Washington	All other states
Maryland	Utah	
Georgia	Arizona	
California[2]	Iowa	
New York	Wyoming	
Colorado	Idaho	
Florida	Oregon	

Two states have already issued Orders outlining their selection of a network architecture for permanent number portability; New York and Georgia. In those Orders New York directed the industry to develop an implementation strategy for

[1] Each of these states, except for California, has selected a permanent, single number, database solution which can be implemented without changes to existing switch routing algorithms.

[2] California supports a permanent, single number solution but has placed two recommendations before the Public Utilities Commission; a database solution and a non-database solution.

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deploying the selected architecture on an expeditious basis and Georgia specified implementation beginning the third quarter of 1997.

Certain Characteristics of a Database Solution

The number portability solution chosen by those states that have studied the available options and issued a recommendation is location routing number ("LRN")[3]. Location routing number is a non-proprietary architecture that has been placed in the public domain by its developer, Lucent Technologies[4]. As such, any switch manufacturer is free to use the specifications outlined by the developer to incorporate the location routing number capability into their switching equipment without the payment of royalties to the developing company. In addition, these switch manufacturers, Nortel, Siemans, Ericsson and AG Communications Systems, also have committed to having LRN applications generally available by the second quarter of 1997.

In addition to being a permanent, single number, database solution, the location routing number architecture offers the following advantages:

- each subscriber has only a single 10-digit telephone number;
- there is no limit to the number of telephone numbers that can be assigned the same location routing number;
- all CLASS services are supported;
- all call processing scenarios can be supported (N-1, OSP, TAP);
- facilitates regional deployment in a phased implementation, avoiding a "flash cut;"
- no additional problems are presented to operation support systems which will continue to use the telephone number to identify both customers and lines, e.g., customer trouble reporting.

These characteristics, and others, have consistently allowed the location routing number architecture to be rated superior to all others when subjected to the rigorous evaluation process pioneered by the Illinois Number Portability Workshop and adapted in other states. At this time other than LRN, there is no proposed solution, including release to pivot, that has set forth requirements for vendors to pursue research and development for permanent number portability applications.

The location routing number architecture is similar to the 800 number architecture in that they are both database solutions. As with the 800 number architecture, service management system ("SMS") databases would be deployed and administered by a neutral third party and individual carrier routing databases would be established to facilitate call routing. Currently, Illinois has a SMS request for proposal for a neutral third party out for bid. Responses are due by March 18 and the third party is expected to be selected by April, 1996. The basic

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[3] The California workshop has placed two recommendations before the Public Utilities Commission; LRN configured in a database architecture and Release-to-Pivot within an overall LRN architecture.

[4] Lucent Technologies is the equipment arm of AT&T that is being spun-off as a part of AT&T's divestiture.

components of both the SMS databases and the call routing databases may provide the industry with an opportunity to deploy additional applications using the same infrastructure. Each additional application needs to be examined on a case by case basis to determine if the infrastructure is readily adaptable to the new application and if the infrastructure is correctly situated in the network to perform the required functions.

Cost Recovery

The costs that individual carriers incur to design and implement network upgrades to deploy number portability in their networks should be borne just as other network costs of call completion are borne today -- by the carriers who own and/or use those networks. Section 251(e)(2) states that "the cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission." These costs include only the network elements directly necessary to provide for local number portability. The costs that all carriers will incur to upgrade their networks is estimated, based on experience gained deploying 800 number portability, to be between $1 and $2 billion. Using a five year period for cost recovery, AT&T's cost study shows that the direct costs range from $0.20 to $0.30 per line over the five years. There are currently 141 million lines in the US, therefore the total cost determined using the mean of $0.25 would be $1.659 billion.

A proposal that would require new entrants to pay the entire cost for deploying permanent number portability would impose a significant barrier to entry and more importantly is in direct conflict with the legislation. Pacific Bell's proposal in California illustrates the significant barrier to entry recovering costs solely from new entrants would cause. Pacific Bell filed rates for remote call forwarding (RCF) which is the interim solution prior to the deployment of permanent local number portability. Pacific Bell's filing requires that only new entrants pay a non-recurring charge of $31.75 per subscriber and $3.25 per line per month for RCF. This type of charge is a prohibitive barrier to entry for alternative providers. An administrative law judge in California proposed Pacific Bell's rates be lowered to $1.88 per line per month with the non-recurring charge remaining the same. This lowered rate is still a substantial burden for new entrants. NYNEX, contrary to Pacific Bell, was ordered by the state PSC to file rates for RCF in New York with costs recovered from all carriers. The PSC required that NYNEX base its rates on a formula of total ported minutes multiplied by costs per minute for switching and transport divided by the total number of working numbers. Based on NYNEX's filing it is estimated that the cost per line would be approximately $0.14 per month with no non-recurring charge. The New York PSC's approach is in line with the legislation and proposes minimal barriers to entry for alternative local exchange providers. This competitively neutral method for recovering costs also should be used for permanent number portability.

As AT&T indicated in its comments in this proceeding, the costs of number portability will surely represent only a small fraction, approximately $0.20-0.30 per line per month, of total network infrastructure investment and will be incurred over time in discrete increments as portability solutions are deployed region-by-region. Further, the Commission can manage portability costs through an implementation schedule designed to reduce cost impacts on carriers.

In summary, many states have already undertaken a rigorous evaluation process of the network architecture options available for implementing permanent local number portability. Their experiences can provide the Commission with valuable information about the merits of any particular network architecture. Of the options available, a single number, database solution has been chosen by the states which have made a recommendation for implementing local number portability. In addition to providing a superior solution for the implementation of number portability, an appropriate database solution will allow the Commission to deploy a number portability solution in "phases," thus, reducing the cost impacts on carriers. As shown above, however, it is crucial that the Commission recognize that the cost of implementing number portability must be recovered from all carriers on a competitively neutral basis in order to ensure that local competition is able to develop.

Sincerely,

cc: Mr. Richard Metzger
Mr. Richard Welch