

FLORIDA PUBLIC SERVICE COMMISSION  
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M E M O R A N D U M

February 20, 1997

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF COMMUNICATIONS (GREER) <sup>516</sup>  
DIVISION OF LEGAL SERVICES (BARONE) <sup>NCB</sup>

RE: DOCKET NO. 960100-TP - INVESTIGATION INTO PERMANENT  
NUMBER PORTABILITY

AGENDA: MARCH 4, 1997 - REGULAR AGENDA - PROPOSED AGENCY ACTION

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\CMU\WP\960100TP.RCM

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CASE BACKGROUND

The Commission began to review the implementation of number portability with the passage of the 1995 amendments to Chapter 364, Florida Statutes. The intent of the amendments, as far as number portability was concerned, was to assure that consumers have access to different local exchange service providers without being disadvantaged, deterred, or inconvenienced by having to give up the consumer's existing local telephone number. Section 364.16(4), Florida Statutes, also required that all providers of local exchange services must have access to local telephone numbering resources and assignments on equitable terms that include a recognition of the scarcity of such resources and are in accordance with national assignment guidelines. The statute required the Commission to ensure the implementation of temporary and permanent number portability solutions.

The 1995 amendments required the Commission to establish a temporary number portability solution before January 1, 1996. Section 364.16(4), Florida Statutes, required the parties, under the direction of the Commission, to set up a number portability standards group by no later than September 1, 1995. The standards group was to direct the investigation and development of appropriate parameters, costs, and standards for number portability, temporary as well as permanent. The standards group met several times in the initial review of temporary number

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portability. Since the Commission was required to ensure the implementation of a temporary number portability solution by January 1, 1996, an expedited hearing schedule was established in the event the parties could not negotiate a mechanism by the statutory deadline.

On June 29, 1995, the Commission established Docket No. 950737-TP to investigate the appropriate temporary local number portability solution as contemplated by the statute. The parties submitted a proposed stipulation on August 31, 1995, which addressed the mechanism to be used to provide temporary number portability. By Order No. PSC-95-1214-AS-TP issued on October 3, 1995, the Commission approved the stipulation.

The stipulation required all Local Exchange Companies (LECs) to offer certificated Alternative Local Exchange Companies (ALECs) remote call forwarding (RCF) as the mechanism to provide temporary number portability by January 1, 1996, while allowing the parties to continue to negotiate on other mechanisms, such as Flex DID, if so desired. Likewise, ALECs were required to offer RCF to the LECs effective on the date they began to provide local exchange telephone service. The parties agreed that the price charged by the ALECs would mirror the price of the LECs. In addition, the parties agreed that RCF was the temporary mechanism for number portability. However, they did not believe that RCF was feasible as a long term number portability mechanism. Therefore, the parties, via the stipulation, agreed to continue to work to investigate and develop a permanent number portability solution.

Although the parties were able to negotiate the temporary number portability mechanism, they were unable to agree to a cost recovery mechanism for temporary number portability. Therefore, the Commission conducted an evidentiary hearing on October 20, 1995. As a result of the hearing, the Commission established the following cost recovery mechanism, pursuant to Order No. PSC-95-1604-FOF-TP, for Remote Call Forwarding (RCF) when used as a temporary number portability mechanism.

**Recurring**

\$1 per telephone number ported  
\$.50 per additional path

**Nonrecurring**

\$10 per account

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In addition to requiring RCF in its review of temporary number portability, the Commission has also required the provision of temporary number portability through Direct Inward Dialing, Route Index Portability Hub, Direct Number Route Index, and Local Exchange Routing Guide Reassignment to the NXX level in various arbitration proceedings.

Since the Commission's initial review of temporary number portability, Congress passed the Telecommunications Act of 1996 (Act) which established the federal guidelines for the provision and cost recovery of number portability. In addition to the requirements in the Act, the FCC issued its interpretation of the Act in Order No. FCC 96-286 in Docket No. 95-116, Telephone Number Portability. Currently, the Commission is reviewing whether the Florida cost recovery mechanism is consistent with the Act and the FCC requirements.

In Order No. PSC-95-1604-FOF-TP, the Commission decided to investigate permanent number portability in a separate docket from temporary number portability, due to the complexity of the permanent solution. Although Florida Statutes do not allow the Commission to establish a permanent mechanism prior to implementation of a national solution, staff believes the FCC's issuance of Order No. FCC 96-286 establishes the national guidelines for the development of a permanent mechanism. Prior to the issuance of the FCC's order, the Florida Number Portability Standards Group (FNPSG) began to evaluate a permanent number portability solution for Florida, as other states, such as Georgia, have been doing.

On January 29, 1996, the Commission opened Docket No. 960100-TP to investigate the appropriate permanent number portability mechanism to implement in Florida. In the early stages of the FNPSG's review of permanent number portability, it determined which of the five permanent mechanisms, Location Routing Number (LRN), Carrier Portability Code (CPC), Release-to-Pivot (RTP), Local Area Number Portability (LANP), and Non-Geographic Number (NGN), that had been proposed in other jurisdictions should be analyzed on a more detailed basis. A sixth method known as Query on Release (QOR) was introduced after the FNPSG's initial review of the available options. After considerable discussion, the FNPSG decided to evaluate LRN since it was the only solution being implemented in various other states.

LRN was proposed as a permanent number portability mechanism by AT&T. Under the LRN proposal, a carrier seeking to route a call to a ported number queries or "dips" an external routing database, obtains a ten-digit location routing number for the ported number,

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and uses that location routing number to route the call to the end office switch which serves the called party. The carrier dipping the database may be the originating carrier, the terminating carrier, or the N-1 carrier (the carrier prior to the terminating carrier). Under the LRN method, a unique location routing number is assigned to each switch. For example, a local service provider receiving a 7-digit local call, such as 887-1234, would examine the dialed number to determine if the NPA-NXX is a portable code. If so, the 7-digit dialed number would be prefixed with the NPA and a 10-digit query (e.g. 679 887-1234) would be launched to the routing database. The routing database then would return the LRN (e.g. 679 267-0000) associated with the dialed number which the local service provider uses to route the call to the appropriate switch. The local service provider then would formulate an SS7 call set up message with a generic address parameter, along with the forward call indicator set to indicate that the query has been performed, and route the call to the local service provider's tandem for forwarding.

LRN is a "simple-number solution" because only one number (i.e. the number dialed by the calling party) is used to identify the customer in the serving switch. Each switch has one network address -- the location routing number.

The FNPSG established the following four subcommittee to begin the long processes of evaluating LRN in Florida.

1. Legal Subcommittee
2. Operational Subcommittee
3. Requirements Subcommittee
4. Service Management System Subcommittee

The FNPSG and the various subcommittees have met more than 20 times, usually at least once a month, since January 1996.

During the FNPSG's evaluation of the LRN, the FCC issued Order No. FCC 96-286, on July 2, 1996, in Docket No. 95-116. The FCC determined that number portability provides consumers flexibility in the way they use their telecommunications services and promotes the development of competition among alternative providers of telephone and other telecommunications services. The order noted several studies that indicated customers were unwilling to change their service provider if they had to change their telephone number. The FCC believed Congress intended it to play a leadership role in developing a national number portability policy and therefore the FCC intends to prescribe requirements for number portability in this and subsequent orders.

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In its order, the FCC declined to choose a specific method for providing permanent number portability and left that decision for the states. However, the FCC established criteria for long-term number portability methods that must be met by the state solutions. The FCC believed these criteria would ensure an appropriate level of national uniformity, while maintaining flexibility to accommodate innovation and improvement. It required that any long-term number portability method, including call processing scenarios or query triggering, must:

- (1) support existing network services, features, and capabilities;
- (2) efficiently use numbering resources;
- (3) not require end users to change their telecommunications numbers;
- (4) not require telecommunications carriers to rely on databases, other network facilities, or services provided by other telecommunications carriers in order to route calls to the proper termination point;
- (5) not result in unreasonable degradation in service quality or network reliability when implemented;
- (6) not result in any degradation of service quality or network reliability when customers switch carriers;
- (7) not result in a carrier having a proprietary interest;
- (8) be able to accommodate location and service portability in the future; and
- (9) have no significant adverse impact outside the areas where number portability is deployed.

The FCC did not establish a national call processing scenario, which determines where a database query is done, since it believed the carriers may wish to determine among themselves how to process calls under alternative scenarios.

Although the FCC did not mandate the method to provide number portability, it did establish a schedule specifying the dates when companies would be required to implement long-term number portability. The FCC believed that requiring implementation of long-term number portability by a date certain is consistent with the Act's requirements that LECs, including CMRS providers, offer number portability as soon as they can do so. This will advance the Act's goal of encouraging competition in the local exchange market. The schedule requires LECs operating in the 100 largest metropolitan statistical areas (MSAs) to offer long-term service provider number portability commencing on October 1, 1997 and concluding by December 31, 1998. After December 31, 1998, each LEC must make long-term number portability available in smaller MSAs within six months after a specific request by another

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telecommunications carrier in the areas in which the requesting carrier is operating or plans to operate. Although the FCC has established the schedule for implementation of number portability, it strongly encourages carriers to provide such portability before the FCC imposed deadlines. Table A shows the schedule for the areas in Florida that are included in the largest 100 MSAs.

TABLE A

MSA	Counties in MSA	Date of Implementation
Miami	Dade	1Q 98
Ft. Lauderdale	Broward	1Q 98
Orlando	Lake, Orange, Osceola, Seminole	1Q 98
Tampa	Hillsborough, Pinellas, Pasco, Polk	1Q 98
Jacksonville	Clay, Duval, Nassau, St. Johns	3Q 98
West Palm Beach	Palm Beach	3Q 98
Sarasota	Manatee, Sarasota	4Q 98

Source: FCC 96-268 Appendix F

The FCC concluded that an impartial entity should be selected to be the database administrator. In addition, it believed that a regionally deployed database system will ensure that carriers have the number portability routing information necessary to route telephone calls between carriers' networks, and will also promote uniformity in the provision of such number portability data. The FCC required the North American Numbering Council (NANC), which is responsible for selecting the new North American Numbering Plan Administrator, to select the regional database provider as well as determine all technical interoperability and operational standards associated with a regional database. The FCC provided the states the ability to opt out of using a regional database and develop a state specific database. However, the state database must meet the national requirements and operational standards recommended by the NANC. Carriers within the state can petition the FCC for relief if a state opts out of a regional database, and the state's decision

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to opt out of a regional database delays the deployment of long-term number portability.

Once the FCC issued Order No. FCC 96-286, the FNPSG evaluated the six permanent number portability methods discussed above based on the FCC's criteria. LRN was the only long term number portability mechanism that met the FCC's nine criteria for a permanent mechanism.

It became apparent that the evaluation of LRN made more sense on a regional basis than on a state-by-state basis since, for the most part, the industry segments doing the evaluations were the same for a specific region. Therefore, the FNPSG believed it would be beneficial for the Florida carriers if the FNPSG worked to help implement a Southeast Region Number Portability Mechanism. Since the Georgia effort to implement permanent number portability was ahead of Florida's efforts, the FNPSG believed it would be best to use the extensive work done by the industry in Georgia and apply that to Florida. This approach would minimize the duplication of efforts in areas that would be shared between states in a regional approach, such as the development of the database. The initial step performed by the FNPSG subcommittees, subsequent to this change in direction, was to determine if there were any Florida specific issues that needed to be addressed in the Georgia documentation. Except for some of the language contained in the Limited Liability Corporation (LLC) charter and the Request for Proposal sent to vendors for the development of the database, there was little if any modification necessary.

Before the FNPSG made any efforts to help develop the Southeast regional approach, it sent a letter to the Georgia Commission to determine if there was any interest in such an approach. The Georgia Commission agreed to some extent that the regional approach would be beneficial to the carriers, but it made it clear that the Florida Commission's efforts should not affect Georgia's implementation schedule. This recommendation is to address whether the Florida Commission should continue to work to develop a Southeast Regional Permanent Number Portability Mechanism.

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### DISCUSSION OF ISSUES

**ISSUE 1:** Should the FNPSG continue to work to develop the Southeast Region Permanent Number Portability Mechanism?

**RECOMMENDATION:** Yes, the Commission should endorse the continued development of the Southeast Region Permanent Number Portability Mechanism.

Staff recommends the Commission adopt LRN as the permanent number portability mechanism to be used in Florida. In addition, staff recommends the Commission should endorse the work being done by the FNPSG, in conjunction with other state implementation groups, to develop a Southeast Region Number Portability Mechanism.

**STAFF ANALYSIS:** As discussed in the case background, the FNPSG has done considerable work to be in the position to implement permanent number portability as required by FCC Order No. FCC 96-286. The members of the FNPSG believe the Commission should choose to participate in the Southeast Region Permanent Number Portability mechanism. Section 364.16(4), Florida Statutes, states that the FPSC should ensure that the industry will implement permanent number portability as soon as possible, once a national solution is developed. FCC Order No. FCC 96-286 establishes the national criteria, excluding cost recovery, that must be met prior to the implementation of any permanent number portability mechanism. The Florida telecommunications industry, via the FNPSG members, believes that the regional approach will minimize the cost of implementing LRN as a permanent number portability mechanism in Florida. In addition, the FNPSG has determined that LRN is currently the only solution that meets the FCC's criteria. It should be pointed out that if the FCC changes its decision as it relates to mechanisms such as QOR, the FNPSG will evaluate whether the mechanism can be used in some fashion by a Florida carrier.

The Southeast Region Number Portability mechanism will use the underlying documents developed in Georgia for the implementation of LRN. These documents were originally developed in Illinois and have evolved to address problems identified in various states. As LRN is implemented throughout the country, the requirements and operational documents will continue to evolve to enhance the LRN mechanism. The Southeast Region Limited Liability Corporation (LLC) has already chosen Perot Industries to provide the Service Management System function of the LRN solution. The LLC will begin negotiation on price with Perot Industries in the near future.

Staff recommends the Commission adopt LRN as the permanent number portability mechanism to be used in Florida. In addition,



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staff believes the Commission should endorse the work being done by the FNPSG, in conjunction with other state implementation groups, to develop a Southeast Region Number Portability Mechanism.

Staff notes that if the FCC modifies its order to allow other mechanisms that may minimize the cost to a specific carrier, staff believes the Commission should require the FNPSG to evaluate whether the option is a viable option to be used in conjunction with LRN. Staff believes the only issue that the Commission will have to address will probably be cost recovery.

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ISSUE 2: Should this docket be closed?

RECOMMENDATION: No. This docket should remain open to address future issues in the development of permanent number portability.