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February 16, 2001

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Mrs. Blanca S. Bayó  
Director, Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
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Re: Docket No. 001503-TP (Number Pooling Trials)

Dear Ms. Bayó:

Enclosed is an original and fifteen copies of BellSouth Telecommunications, Inc.'s Comments, which we ask that you file in the above-referenced matter.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served to the parties shown on the attached Certificate of Service.

Sincerely,

*James Meza III*  
James Meza III *(JM)*

cc: All Parties of Record  
Marshall M. Criser III  
Nancy B. White  
R. Douglas Lackey

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**Docket No. 001503-TP**

I HEREBY CERTIFY that a true and correct copy of the foregoing was served via

U.S. Mail this 16<sup>th</sup> day of February, 2001 to the following:

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JAMES MEZA III

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**Cost Recovery and Allocation Issues for )  
Number Pooling Trials in Florida )  
\_\_\_\_\_ )**

**Docket No. 001503-TP**

**COMMENTS OF BELLSOUTH**

**February 16, 2001**

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## COMMENTS OF BELLSOUTH

### I. INTRODUCTION

The Florida Public Service Commission ("FPSC" or "Commission") is leading the BellSouth states into a new era of number conservation. Over the past two years, the Commission has been at the forefront of number conservation matters on a regional and national level. As a result of the Commission's and industry's efforts, Florida is in a state of transition between (1) the old numbering regime of receiving 10,000 telephone numbers when numbering resources are needed and (2) the new numbering regime of only receiving 1,000 telephone numbers (number pooling). The focus of the Commission's and the Federal Communication Commission's ("FCC's") efforts is to create an environment where the best possible utilization of numbering resources is achieved. Although the industry may not agree with every aspect of the various regulatory directives, BellSouth generally believes that the new regime will provide for better utilization of the numbering resources than in the past. However, as the Commission is well aware, there are costs associated with the transition to this new regime. The implementation of number pooling raises significant technical and cost considerations similar to those experienced in implementing number portability. In the FCC Order (FCC 99-249) released on September 15, 1999, the FCC requires, "that the Florida Commission determine the method to recover the costs of the pooling trials. The Florida Commission must also determine how carrier-specific costs directly related to pooling administration should be recovered." The Commission has exercised its delegated authority to require carriers in Florida to implement various number pooling

trials. Therefore, BellSouth believes the Commission should proceed with the implementation of an interim cost recovery mechanism until such time as a national mechanism is in place. Once the national recovery mechanism is in place, BellSouth believes that the Commission's mechanism should be evaluated to ensure the total cost of implementing number pooling is fully recovered via either the state or national recovery mechanism.

## **II. FEDERAL LAW GOVERNS THE COMMISSION'S IMPLEMENTATION OF A COST RECOVERY MECHANISM**

Congress granted the FCC exclusive jurisdiction over those portions of the NANP that relate to the United States. 47 U.S.C. § 251 (e)(1); FCC Order 99-204 at ¶ 7. However, the FCC can and has delegated to the state commissions all or portion of that jurisdiction, which is exactly what it did in this case. Recognizing that it lacked the authority to implement specific conservation measures, the Commission petitioned the FCC for authority to implement various area code conservation measures, including number pooling. *See* FCC Order 99-204 at ¶ 1. The FCC granted the request, with certain conditions. One of the conditions was that the Commission develop a mechanism that would allow BellSouth to recover the costs associated with number pooling in a competitively neutral manner. *Id.* at ¶ 17. Specifically, the FCC stated:

We further require that the Florida Commission determine the method to recover the costs of the pooling trials. The Florida Commission must also determine how carrier-specific costs directly related to pooling administration should be recovered. The Commission has tentatively concluded that thousands-block number pooling is a numbering administration function, and that section 251(e)(2) authorizes the Commission to provide the distribution and recovery mechanisms for the interstate and intrastate costs of number pooling. We conclude that



inasmuch as we are hereby delegating numbering administration authority to the Florida Commission, the Florida Commission **must abide by the same statute applicable to this Commission, and, therefore, ensure that costs of number pooling are recovered in a competitively neutral manner.**

Order 99-249 at ¶ 17 (emph. added).

Absent delegation of authority from the FCC, the Commission is without authority to implement number pooling or any other area code conservation measure. Consequently, the Commission must abide by federal and not state law in implementing area code relief.

Indeed, in the Number Utilization Study docket, 981444-TP, the Commission recognized this very point and acknowledged that the “FCC’s rules and orders requir[ed] [it] to resolve any matters related to cost recovery under the federal law . . . .” *See* Order No. PSC-00-1046-PAA-TP at 9. As stated by the Commission, this means that any order arising from the cost recovery docket “will follow applicable federal law.” *See* Order No. PSC-00-1527 at 13. For these reasons, BellSouth does not believe that Florida’s price regulation statute or any other state statute applies to the FCC’s mandate that the Commission implement a competitively neutral cost recovery mechanism. Even if the price regulation statute was applicable it would not be triggered if the Commission structured the cost recovery mechanism as a line-item surcharge on each customer’s bill. Such a charge would not constitute a change in rates and therefore not come within the confines of the price regulation statute. The FCC previously adopted this type of cost recovery mechanism in the number portability proceeding.

### **III. THE COMMISSION SHOULD PROCEED WITH ESTABLISHING AN INTERIM COST RECOVERY MECHANISM**

At the Workshop conducted on December 12, 2000, several parties believed the FPSC should not establish an interim cost recovery mechanism. Instead, they urged the Commission to wait until the national cost recovery mechanism is developed and then attempt to recover the interim costs within the national mechanism. BellSouth does not believe it is appropriate for this Commission to delay development of an interim cost recovery mechanism for two main reasons.

First, BellSouth is currently incurring considerable cost in modifying its network and operational support systems to implement number pooling in Florida. Since the inception of the Commission's efforts on number pooling, BellSouth has carried the financial burden of implementing number pooling. BellSouth does not believe it is appropriate for it to continue to shoulder the cost without the ability to begin cost recovery in the very near future.

Second, BellSouth is unsure as to when recovery via a national cost recovery mechanism will be available. The FCC has indicated that it will not begin implementation of the national number pooling until nine (9) months after it has selected a national pooling administrator. As with number portability, this does not constitute the beginning of cost recovery. BellSouth notes that with number portability it completed implementation for the top 21 MSAs in BellSouth's region by December 1998, although the cost recovery did not start until May 1999. Currently, the FCC has issued a Request For Proposal ("RFP") in an attempt to select a national pooling administrator. BellSouth does not know when the national pooling administrator will be able to assume its duties

for the state as well as the national pooling areas. Until such time, the Commission continues to request BellSouth to implement more pooling trials without the ability to recover any costs associated with implementing number pooling in the state of Florida. Therefore, BellSouth believes that the Commission should continue to develop and implement an interim number pooling mechanism as soon as possible, which would allow BellSouth to recover its costs at this time.

**IV. SHOULD THE COMMISSION CONTINUE TO DEVELOP AN INTERIM MECHANISM IN THE ABSENCE OF DETAILED COST INFORMATION?**

BellSouth is in the process of quantifying the costs associated with number pooling. BellSouth is unable, however, to provide a detailed cost study at this time. BellSouth is currently preparing such a study and will provide more information to the Commission once it is available. BellSouth expects it will complete its cost study by the end of May 2001.

The lack of cost information, however, should not preclude the Commission from establishing an interim cost recovery mechanism, since the cost recovery mechanism is not dependent of the types of costs. BellSouth therefore urges the Commission to move quickly and develop an interim cost recovery framework even in the absence of extensive cost data.

**V. WHAT METHODOLOGY SHOULD THE COMMISSION USE IN THE DEVELOPMENT OF A COST RECOVERY MECHANISM?**

In its NPRM, the FCC concluded, “the costs of thousands-block number pooling: (a) should not give one provider an appreciable, incremental cost advantage over another when competing for a specific subscriber; and (b) should not have a disparate effect on competing providers’ abilities to earn a normal return.”<sup>1</sup> BellSouth believes that the cost recovery mechanism established for number portability with minor modifications is an appropriate framework for recovering the costs associated with the implementation of state specific pooling trials. Specifically, the Commission should allow, but not require, incumbent LECs to recover their carrier-specific costs directly related to providing number pooling through a charge assessed on end-users. Those carriers not subject to rate regulation (*e.g.*, competitive LECs, CMRS providers, and non-dominant IXCs) should be permitted to recover carrier-specific costs directly related to providing number pooling. This state specific charge should be similar to the federal charge that the FCC has allowed for number portability. The state charge should be allowed for a limited time only (*e.g.* two years) and appear as an explicit charge on the end-user’s bill.

In the number portability cost recovery mechanism adopted by the FCC, there were several allowances made for certain types of facilities and services such as trunks and lifeline service. Although BellSouth believes the allowances in the number portability recovery mechanism were reasonable, BellSouth believes whatever

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<sup>1</sup> *NRO Order*, ¶ 199.

mechanism is established by the Commission should be simplistic in nature and would eventually role into a national cost recovery mechanism.

As stated before, BellSouth intends to file a detailed cost study with the Commission justifying and explaining the costs to be recovered for number pooling implementation in Florida. BellSouth believes the Commission can audit these costs to verify to its satisfaction the recovery amount proposed by BellSouth. Therefore, BellSouth recommends that the Commission adopt a framework similar to number portability and require a carrier seeking recovery via the state cost recovery mechanism to file a cost study with the Commission. However, since BellSouth believes the framework should be simple to administer due to its interim nature, BellSouth proposes that all of the Florida specific costs and an allocated portion based on access lines of the regional costs associated with number pooling be assigned to Florida for recovery. The allocation of the regional costs would be approximately 27% of the total regional costs based on December 30, 2000 access line data. When the national mechanism is implemented, BellSouth proposes that the costs for number pooling be evaluated to determine, at that time, whether the end-user charge should continue or roll into the national cost recovery mechanism. BellSouth believes that because all customers would benefit from number pooling, the state end-user charge should be applied to each access line and should not include any allowances discussed above, except for the exclusion of lifeline service.

**VI. THE NETWORK MODIFICATIONS, OSS MODIFICATIONS, AND COSTS ASSOCIATED WITH IMPLEMENTING NUMBER POOLING ARE SUBSTANTIAL, AND ANY COST RECOVERY MECHANISM ADOPTED MUST PROVIDE FULL COST RECOVERY.**

In the absence of a detailed cost study, BellSouth identifies below the various types of costs already incurred and modifications made in implementing number pooling. This assessment, however, is preliminary, and it is likely that BellSouth will incur additional or different costs from those included herein. Nevertheless, BellSouth believes that the Commission will find the information helpful. As a point of reference, BellSouth believes the Florida specific costs for number pooling would be approximately \$3.1 million and the regional costs would be in the range of \$121 to 146 million. BellSouth wants to make clear that this is its best estimate for number pooling costs at this time. BellSouth notes that these costs are fully loaded and have not been evaluated to determine if portions of these costs should be excluded.

**A. Cost Categories For Thousands-Block Number Pooling (“TNP”)**

The *NRO Order* adopted three categories of costs for thousands-block number pooling: (1) shared industry costs (or “Type 1” costs);<sup>2</sup> (2) carrier-specific costs directly related to thousands-block number pooling implementation (or “Type 2” costs);<sup>3</sup> and (3) carrier-specific costs not directly related to thousands-block number pooling

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<sup>2</sup> The Commission defines shared industry costs as those costs incurred by the industry as a whole (including NANP administrator costs, and enhancements to the number portability regional database). *NRO Order*, ¶¶ 201, 203.

<sup>3</sup> Carrier-specific costs directly related to thousands-block number pooling are those costs associated with enhancements to various carriers systems (*e.g.*, enhancements to service control points, local service management systems (“LSMS”), service order administration (“SOA”), and operations support systems). *NRO Order*, ¶¶ 201, 203.

administration (or “Type 3” costs).<sup>4</sup> The FCC further concluded that shared industry costs (Type 1 costs) and carrier-specific costs directly related to pooling (Type 2 costs) would be subject to cost recovery.<sup>5</sup>

BellSouth believes that the Commission should adopt these categories since any national pooling cost recovery mechanism will encompass the same general categories. BellSouth identifies below the categories of Type 1 and Type 2 costs that the Commission should include in the interim cost recovery mechanism. BellSouth intends to include these costs in its cost study.

#### **1. Shared Industry Costs**

Shared costs are the costs incurred by the industry to build, operate, and maintain the databases needed to provide number pooling. Once a carrier’s share of the Type 1 costs is defined and allocated, that share will become a carrier-specific cost directly related to the provision of thousands-block pooling in Florida, *i.e.*, a Type 2 cost. Accordingly, BellSouth plans to include all shared costs allocated to it in its cost study.

##### **a. Number Portability Administration Center (“NPAC”) Upgrade And Ongoing Costs**

The NPAC Service Management System database contains all necessary routing information on ported numbers and facilitates and the updating of the routing databases of all subtending service providers in the portability area. Currently, the NPAC is running Release 2.0 software with 1.4 pooling functionality. The Southeast Region NPAC, which serves BellSouth, will be updated with Release 3.0. The North American

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<sup>4</sup> *NRO Order*, ¶¶ 201, 203.

Portability Management Limited Liability Committee and NeuStar, administrator of the Southeast Region NPAC, are currently negotiating the terms and conditions of an agreement to implement Release 3.0 software. BellSouth will seek recovery of all costs associated with the NPAC that are related to number pooling. BellSouth will not seek to recover the incremental cost of the 1.4 functionality, which is required to implement number pooling.

**b. Interim Pooling Administrator**

The interim pooling administrator (NeuStar) has the following high-level responsibilities to support participating service providers in the Florida pooling trials: (1) general administrative duties; (2) forecasting and planning; (3) number assignment; and (4) block reclamation. NeuStar has constructed and is maintaining the databases for Florida's number pooling trials. As a result of the industry's agreement, a carrier's allocated share of these Type 1 costs will be based on that carrier's total intrastate, interstate, and international telecommunications end-user revenue. BellSouth's allocated share of these costs are fully recoverable and will be included in its cost study, except for any transitional costs that may be incurred to transition 1.4 records to 3.0 records.

**2. Carrier-Specific Costs Directly Related To Providing Thousands-Block Number Pooling**

Carrier-specific costs directly related to thousands-block number pooling are those costs associated with updates to carriers' networks (including LSMS, SCP, and OSS systems), as well as, each carrier's allocated portion of shared industry costs, as

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<sup>5</sup> *Id.*, ¶ 207.



discussed above. In its *NRO Order*, the FCC concluded that allowing carriers to recover their own carrier-specific (Type 2) costs is consistent with the competitive neutral requirements of Section 251(e)(2).<sup>6</sup> The FCC also adopted the same “but for” test used in the number portability proceeding in order to identify carrier-specific costs directly related to thousands-block number pooling. Under this “but for” test, costs are eligible for recovery only if they satisfy the following two requirements: (1) the costs would not have been incurred by the carrier “but for” the implementation of thousands-block number pooling; and (2) the costs were incurred “for the provision of” thousands-block number pooling.<sup>7</sup>

BellSouth is incurring – and will continue to incur – significant costs in providing thousands-block number pooling (“TNP”). The subsection below describes the carrier-specific costs directly incurred by BellSouth in the provision of TNP. BellSouth submits that each of the identified costs satisfy the “but for” test and are therefore eligible for full cost recovery. BellSouth categorizes these costs as: (a) network costs; (b) OSS and service management system (“SMS”) costs; and (c) employee-related and other costs

**a. Network Costs**

**(1) Network Software Costs Dedicated Exclusively To Providing Thousands-Block Number Pooling**

***i. TNP Service Package Application (“SPA”) Enhancement***

BellSouth is developing additional call processing and routing logic required for thousands-block pooling. The Service Package Application (“SPA”) is software installed

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<sup>6</sup> *Id* at ¶ 209.

<sup>7</sup> *NRO Order* at ¶¶ 217-218.

on BellSouth's Service Control Points ("SCPs") that provide routing instructions to the central office switch. The logic required for thousands-block number pooling is distinct from, and not included in, the existing porting and default routing logic. The call processing hierarchy requires the following determination: first, whether a number is ported; second, if that number is ported, whether the number is also pooled; and, third, if the number is neither ported nor pooled, whether to default route the call. BellSouth considers the costs associated with this modification to be fully recoverable as "dedicated" costs.

*ii. Switch Feature Software Upgrades - 5ESS, DMS 100, And EWSD*

In order to provide TNP BellSouth must perform feature upgrades to certain switches. One such upgrade is to install the TNP feature software, which is used solely for the purpose of providing TNP. The costs of such upgrades are fully recoverable as carrier-specific costs directly related to the provision of number pooling. Number pooling switch requirements include the need to denote an unallocated directory number or a range of directory numbers so that calls routed to these numbers will not receive error treatment.

**(2) Network Hardware And Software Joint Costs Directly Related To Providing Thousands-Block Number Pooling**

BellSouth will incur both hardware and software costs that are only partially related to the provision of TNP (*i.e.*, joint costs). The *NRO Order* defines joint costs as "incremental costs associated with new investments or expenses that directly support thousands-block number pooling and also support one or more non-number pooling

functions.”<sup>8</sup> The following describes the circumstances under which BellSouth will incur joint costs and, in some instances, identifies the method BellSouth proposes to use to allocate the appropriate amount of costs to TNP. If no allocation method is identified, BellSouth will provide such information in its forthcoming cost study.

*i. Service Control Point Hardware And Software – Processor And Memory Upgrades*

BellSouth will upgrade its SCPs specifically for the purpose of providing TNP. These SCPs house the database that contains routing information for ported and now pooled numbers. A SCP receives the called number in a query from a Service Switching Point (“SSP”) and responds with routing instructions that enable the SSP to complete the call. The query and the resulting routing instructions travel over the Common Channel Signaling Network (“CCSN” or “SS7” Network). Random Access Memory (“RAM”) upgrades will be required on some SCPs. SCPs will be upgraded with Model 2+ processors to provide sufficient Central Processor Unit (“CPU”) capacity to serve pooling query demand as a result of the increased cycle time required to process TNP queries. The costs associated with these hardware and software modifications are fully recoverable joint costs. BellSouth will determine the allocation method in its forthcoming cost study.

*ii. Switch Hardware – Processor Upgrades*

Thousands-block number pooling will require BellSouth to increase the overall call-processing capacity of some switches due to the query/response traffic associated with the database lookups to obtain call routing information for calls to pooled or ported numbers. BellSouth is in the process of assessing the processor capacity of each

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<sup>8</sup> *NRO Order*, ¶ 221.

individual central office. BellSouth proposes to allocate a portion of these joint costs to TNP based on the percentage of processor utilization attributable to BellSouth's TNP query/response traffic. BellSouth is evaluating what portion of these costs it will include in a cost study filing.

**iii. Switch Generic Software Upgrades – 5ESS, DMS 100, And EWSD**

BellSouth routinely upgrades base operating system software for its 5ESS, DMS-100, and EWSD type switches. However, the upgrades will be advanced in order to provide TNP. BellSouth is currently evaluating what portion of these costs it will include in a cost study filing.

**iv. Hardware And Software For BellSouth NPAC Interface System**

The BellSouth Number Portability Administration Center ("NPAC") Interface System serves as the interface between NPAC, the internal-BellSouth OSS systems, and the Alternative Local Exchange Telecommunications Company (ALEC) interface systems that currently support LNP and will shortly support TNP. LNP and TNP require interaction and coordination among ALECs, the NPAC, and internal OSS systems. BellSouth uses a number of systems to both automate and provide interfaces for BellSouth service representatives to coordinate activities among the various systems. The TNP enhancements will support NPAC and Pooling Administrator processes that allocate NPA-NXXs at the thousands-block level within rate centers.

These enhancements would not have been incurred but for the implementation of number pooling and therefore will be carrier-specific costs directly related to number

pooling. At this time, BellSouth proposes to allocate a portion of the costs associated with updating hardware and modifications to software as fully recoverable joint costs.<sup>9</sup>

**b. OSS And Service Management System (“SMS”) Hardware And Software Costs**

*Operations Support Systems (“OSS”) Costs.* A significant portion of the costs that BellSouth will incur to implement TNP will be associated with modifications to its OSS systems. The implementation of pooling requires the modification of every system that handles telephone numbers, which is a substantial number of systems. The provision of LNP involved significant and fundamental network changes for call routing and call processing. The implementation of TNP is just as significant. TNP requires fundamental changes to essentially every system that currently relies on the NXX portion of the 10-digit NANPA telephone number as a primary data source.

Attachments A and B provide a brief summary of the BellSouth OSS systems impacted by TNP. This list identifies the OSS systems by functionality (*e.g.*, pre-ordering, ordering, provisioning, and billing) and describes the system changes necessary to accommodate TNP.

*Service Management System (“SMS”) Costs.* BellSouth must adapt its Advanced Intelligent Network SMS (“AIN-SMS”) to manage the SCPs and their databases. The AIN-SMS receives ported and/or pooled number information broadcast from the NPAC (via the BellSouth Gateway), processes that information, and downloads it to the appropriate SCP. Upgrades to the AIN-SMS will be required primarily to (a) support a

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<sup>9</sup> A preliminary assessment indicates that these costs are actually a combination of both dedicated and joint costs. Although BellSouth has included these costs solely in the joint-cost section for purposes of these comments, our final cost study will likely apportion these costs between dedicated and joint costs.

new port type called "Pool" and (b) modify database schema and associated logic to support the Efficient Data Representation.<sup>10</sup> These upgrades provide the fundamental capability to distinguish a pool query and provide the database efficiency of representing a thousands-block as a single record and are directly attributable to number pooling. Accordingly, BellSouth proposes to allocate a portion of these joint costs to TNP.<sup>11</sup>

**c. Employee-Related and Other Costs**

As described more fully below, BellSouth has employees dedicated to working on projects for the implementation of TNP. The costs associated with these TNP projects, including employee-related costs, are fully recoverable as Type 2 costs.

**(1) Translations**

BellSouth incurs labor costs in performing translations<sup>12</sup> to provision TNP-feature software and in applying directory number markings (*i.e.*, reserved or ported-out). These translations are needed to specify the directory numbers for which the switches will launch queries to the TNP databases.

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<sup>10</sup> Efficient Data Representation ("EDR") allows the storage of large blocks of numbers as a single record. This capability is included in NPAC Release 3.0 and is deemed essential for the long-term implementation of thousands-block number pooling because it significantly increases the storage capacity in network elements such as the service control points.

<sup>11</sup> A preliminary assessment indicates that these costs are actually a combination of both dedicated and joint costs. Although BellSouth has included these costs solely in the joint-cost section for purposes of these comments, our final cost study will likely apportion these costs between dedicated and joint costs.

<sup>12</sup> A translation is a process in which an employee prepares tables to identify the proper routing for a switch.

## **(2) Network Infrastructure**

BellSouth has employees dedicated to network infrastructure planning and implementation. These employees are responsible for ensuring that all aspects of TNP, including network hardware and software upgrades, are properly designed and implemented.

## **(3) Science & Technology**

BellSouth has within its Science & Technology organization employees dedicated to working on the implementation of TNP. These employees: (1) write software requirements for the various BellSouth systems; (2) test vendor software for TNP; (3) test software written internally; and (4) support field groups if problems are encountered during TNP implementation.

## **(4) Project And Administrative Management**

BellSouth has employees dedicated to performing specific job functions associated with TNP, including project management, business planning, and field support. BellSouth also employs independent contractors to support the implementation of TNP.

## **(5) Training**

Training will be provided to all center employees (*e.g.*, residence and business repair centers) impacted by thousands-block number pooling. This training will be developed and delivered by BellSouth employees or outside contractors. Training will be based on the needs of each specific center.

**(6) Number Administration**

BellSouth has established the Block Administration Center (BAC) to handle the number pooling administration in a TNP environment. These employees are responsible for the day-to-day administration of TNP within BellSouth's region. To date, the majority of these efforts have been supporting the Florida pooling trials.

\* \* \*

As demonstrated above, the implementation of thousands-block number pooling is a massive undertaking that generates substantial costs. BellSouth has identified a preliminary list of the costs it will incur to provide TNP. The costs are directly attributable to the provision of number pooling and satisfy the "but for" test: Consequently, BellSouth intends to treat such costs as fully recoverable when it files its cost study in this proceeding. In some instances, functionality developments or software upgrades made to provide TNP will also support other services. In those instances, BellSouth plans to allocate only a portion of the costs to TNP for cost recovery purposes.

**VII. CONCLUSION**


BellSouth believes the Commission should continue to move forward with the development of an interim cost recovery mechanism for number pooling as discussed above. In addition, BellSouth believes the Commission has the authority pursuant to its delegated authority to allow carriers to recover their number pooling costs via an end-user line charge. BellSouth also believes the carriers should file a cost study supporting their proposed end-user charge. Further, BellSouth believes that once the FCC's cost recovery mechanism is established, the Commission and any carrier with an end-user




charge should evaluate whether such a charge is still appropriate to recover number pooling costs.

Respectfully submitted this 16<sup>th</sup> day of February, 2001.

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## Requirements for Number Pooling that must be provided in Mechanized Systems

### Pre Ordering

BONIS, COFFL, PSIMS

- Ability to recognize NPA-NXX-X
  - Numbers that are pooled and not available to BST for assignment
  - Numbers that have been donated to a CLEC
  - Numbers that were previously CLEC numbers now available in BST for assignment
  - Numbers that were previously BST numbers but have been donated to another BST switch

### Ordering

ACCESS, CSPS, LESOG, RIGHTTOUCH, RNS, ROS, SOCS, SONGS, DBAS II, DOE/DSAP, LIDB, CARE, MISOP, BCOS, VNS, MECHSO, LIST

- Ability to recognize NPA-NXX\_X
- Ability to populate required fields on all inward action orders for downstream processing
  - Serving EXK (used to correctly route calls to the correct switch)NXX no longer determines routing since number ranges can be spread across multiple switches in a TMRC (previously only PI activities had EXK)
  - Serving TTRA (used to correctly bill calls) can be different than EXK
  - LRN is also being added to the SO (since we are in that SO code) this provides the necessary information to route and perform trouble resolution for M&R
- Ability to process intra company ports – currently PI can only occur on CLEC numbers

### Provisioning

ATLAS, ARTS, HAL, LEACS, LEIS, MARCH, NSDB, OM, PAWS, SOAC, SWITCH, WFA/C, BAC, DBRT, LAUTO, LION, RSAG, CNUM, ISP, LNP Gateway

- Ability to recognize and process EXKs, LRNs, on all inward action orders
- Ability to recognize and process intra-company ports

### Billing

CABS, CRIS, MATV, BAMS, BOCABS

- Ability to recognize, store and bill on TTRA passed on SO
  - Currently TTRA equates to a NPA-NXX which is no longer specific enough for billing

## Requirements for Number Pooling that must be provided in Mechanized Systems

- Ability to recognize and process intra-company ports

### M&R

**LMOS FE, LMOS HOST, SNECS, TAFI, LNP TAG, TAP, PREDICTOR**

- Ability to recognize and properly route trouble/trucks based on NPA/NXX-X

### E911

**911 GW, 911 DB**

- Change required to process intra company porting orders – currently porting orders require port out from old service provider with corresponding port in from new service provider. NPA-NXX tables must be enhanced to support NPA-NXX-X.

## NUMBER POOLING SYSTEMS AND DESCRIPTIONS

SYSTEM	DESCRIPTION	VENDOR	PROVISIONING	M&R	ORDERING	BILLING
ACCESS	Advertising Consolidated Customer Employee Support System - New system for White and Yellow Pages Publishing, Billing and Distribution	BAPCO			X	X
ARTS	Advance Routing and Trunking System - Provides NPA, NPA-NXX routing instructions to NISCs for building translations.	BST	X			
ATLAS	The ATLAS acronym stands for Application for TN Load, Administration, and Selection. ATLAS acts as a warehouse for storing telephone numbers that are available for assignment by the negotiation systems. ATLAS has grown to include inventories of circuit ID's, group numbers, and other switch specific information. Future demand for more switch specific information is anticipated. LNP and full TN administration functions will soon be part of ATLAS.	BST	X			
BAMS	Banded Area Measured Service Not Impacted by TNP.	BST			X	X
BAC (PBAC)	Pooling Block Administration Center - The Block Administration Center will be a new center whose functions are defined in the Number Pooling Service Mapping document. One JG59 and two JG58 managers are requested for 2H99 to begin planning and decision-making to establish the center. <i>(See attachment for "layout" of new TN Administration staff-center group which has been OK'd as part of the overall Centers Plan in the Network organization.)</i>	N/A	X			
BCOS	ESSX Order Management System Scheduled for 1.5					
BOCABS	System that houses CAB Loop Accounts and also Inter-exchange Carrier Accounts. Not impacted by TNP.	BST			X	X
BONIS (BellSouth Online NXX Information System)	BellSouth Online NXX Information System - NPA/NXX assignment inventory. BONIS issues Code Memorandums for new or changed activities on NXXs. System to verify no cross-boundary conflicts & provide feed to P/SIMS (svc reps access this data via COFFI). Generate CO Code Memo's.	BST	X			
CABS	Carrier Access Billing System - This system bills access services to customers.	BST				X
CARE	Customer Account Record Exchange - The vehicle by which our Inter-exchange carrier customers can and/or receive information on end user PIC (Preferred Inter exchange Carrier), changes/selection and/or information relating to the end user billing account.	BST				X
CNUM	Customer number / systems provides TN administration capabilities.					
COFFI	The Central Office Features File Interface (COFFI) is used by the service related systems, SONGS, DSAP, DOE, BOCRIS, RNS, ROS, Quantum to access information on service, features, and PIC/LPIC Carrier data. The database content is loaded from a batch job that feeds daily updates from the Products/Services Inventory Management System (P/SIMS). COFFI does not have access to specific switch availability, therefore, every NPANXX for the entire state must display the data that is loaded only into COFFI. This is usually a specific service such as a class of service and is not done on a wholesale basis. USOC specific data is loaded by a batch update job that reads the contents of a USOC database, the DB2 COFFI/DSAP USOC Database. This job runs each month on the first work day when the on-lines come down. It is possible to request a "Non-Scheduled Run" to distribute between the regular scheduled monthly runs, but in order to keep costs to a minimum for the corporation, it is requested to utilize the regular scheduled run dates as often as possible.	BST			X	
CRIS/BOCRIS	This system maintains all BST customer account records needed to provide customer service. These records are databases containing information such as customer billing and collection data, deposits, listing information, service equipment, PIC service, and revenue summary records. BellSouth Billing Inc. maintains ownership and oversight over CRIS Accounts ongoing maintenance and development. CRIS Accounts is used to render approximately 16 million BellSouth bills per month to BBS, Small Business, Consumer, and select NCS customers. BOCRIS, which is a customer record retrieval system, is a subsystem of CRIS and provides on-line random access to customer records for account inquiry use by Customer Services, Public, BellSouth	BST			X	X

## NUMBER POOLING SYSTEMS AND DESCRIPTIONS

SYSTEM	DESCRIPTION	VENDOR	PROVISIONING	M&R	ORDERING	BILLING
	Billing, Network and BAPCO. CRIS Accounts is the key BST repository of customer data and extract source for CRIS Studies, SIW, and various Marketing Information systems.					
CSPS	Complex Services Profile System – On line system to support Marketing & network in the design, marketing, & provisioning of complex and digital transport services. Mechanizes inquiry & order documents and other generation for specific services. Scheduled for 1.5	BST	X		X	
DBAS II	The DBAS II system is used to update the BellSouth Line Information Database (LIDB). Inter-exchange carriers access interconnected BOC LIDBs to validate calling card numbers, bill to third numbers, and collect calls. Not impacted by TNP.	Telcordia			X	
DBRT	Database Reconciliation Tool Not Impacted by TNP.	BST	X			X
DOE/DSAP	Direct Order Entry/DOE Support Application - DOE is a mechanized order negotiation & generation system using screens & menus, on-line access to CRIS, on-line editing of orders and automatically generating most common order data entries. DOE is a distributed system operating on AT&T 3B2-400 micros.	BST			X	
E911/Gateway	Forwards appropriate recent change messages to the appropriate E911 tandem.	BST	X			
E911	Batch process supports updating TN/ Address information / provides correct routing for emergency purposes.	BST	X			
HAL	Hands-Off Assignment Logic - HAL mechanically handles Requests for Manual Assistance (RMAs) for the Loop Assignment Centers through terminal emulation software. HAL is used as an interface to handle errors detected in ATLAS that must be reported back to COSMOS. Error codes and associated TN's are provided by ATLAS to HAL. HAL then goes to COSMOS to correct the TN's there.	BST	X			
ISP	Installation Support Package - With ISP, Installation work items are automatically entered from the operating company (BST) service order network (SOCS) into the LMOS/WM for testing, dispatch, and completion.	Lucent	X			
LAUTO	LNP Automation - Mechanically generates LNP SO which include Trigger, Port-out orders, listing only orders CABS and CRIS loops	BST	X		X	
LEACS	LMOS Errors and Analysis Correction System – Terminal emulation for error resolution.	BST		X		
LEIS	Loop Engineering Information System - LEIS is an OSP Telcordia decision support system that supports planning, design and assignment. The LEIS application modules include LEAD, ESM, PLAN, CARL, LAD, DILEP, DART and LEIM.	Telcordia	X			
LESOG	Local Exchange Service Order Generated	BST	X			
LIDB	Line Information Database - LIDB is a Network Element that provides calling card validation and billed number screening information for alternately billed calls. BellSouth, all other RBOCs, ITCs, and ICs access LIDB for calling card validation and billed number screening information. Not impacted by TNP.	Telcordia			X	
LION	Intercept System		X			
LIST	On-line service order processing system, that provides data to DAS/C, CNA, EWP, & BAPCO & 63 products.	Non Ntwk Sys			X	
LMOS-FE	Loop Maintenance Operations System – Front End - Application used to enter status, track and test customer trouble reports & service orders. (POTS & Non-Designated)	Lucent		X		
LMOS HOST	Loop Maintenance Operations System - Application system that maintains customer line information to support trouble processing.	Lucent		X		
LNP GATEWAY	Interface between NPAC (Number Portability Administration Center) & Legacy System.	BST		X	X	
LNP TAG - Trouble Admn	Provides RRC/BRC/UNE maintenance centers with a manual interface with the LNP Gateway to send queries to the NPAC and update the AIN/SMS.	BAT		X		

## NUMBER POOLING SYSTEMS AND DESCRIPTIONS

SYSTEM	DESCRIPTION	VENDOR	PROVISIONING	M&R	ORDERING	BILLING
- GUI						
MARCH	MARCH is a Telcordia developed memory administration system that translates line-related service order data into switch provisioning messages and automatically transmits the messages to targeted stored program control system switches. Currently deployed on AMDAHL Platform.	Telcordia	X			
MATV	Mechanized AMA Testing and Validation system automates Central Office AMA testing and validation.	BST	X			
MECHSO	Mechanized Service Order Generator - Mechanically generates service orders for various departments, based on the application logic and the 'trigger' file provided to the process.	BST			X	
MISOP	Mechanized Input to the Service Order Processor - MISOP is a mechanized service order generator for six systems. Each of these users have distinct requirements of MISOP in terms of service order generation. MISOP takes each of these inputs and generates a service order with entries into SONGS or DSAP. The users of MISOP are RightTough, RBOCRIS On-Line Treatment System, Complex Services Profile System (CSPS), Independent Company Number Services, Directory Delivery Notification System (DDNS), Public Communication Information System (PCIS). MISOP has a front-end system, MISOP Interface (MINT), which is utilized by RightTouch for order generation and BOCRIS billing. RightTough has responsibility for the MINT program.	BST			X	
NSDB	Network and Services Database - NSDB is a Network database that is Telcordia-developed and - maintained. It stores customer and circuit data for special service, message, carrier, and enhanced non-designed services. It receives data from SOAC and the TIRKS systems and provides data for NMA, ITS, and WFA/C. NSDB will become an OSCA Data Layer Building Block.	Telcordia	X			
OM	Order Manager - Provisions the establishment & disconnection of QUICK Service lines via the service order provisioning process.	BST	X			
PAWS	Provisioning Analyst Workstation - PAWS system will allow for a common integrated approach to multiple work center tasks. Initially, targeted for the LAC, CPC, NAC.	Telcordia	X			
P/SIMS	Product Services Information Management System - P/SIMS is an on-line mechanized system that provides, at the central office switch level, current and planned service availability, tariff and inventory information for all Network Services. There are seven groups of screens supporting reports of carrier information, equal access services/features information, switch/CLLI and ONA plus lists and reports.	BST	X		X	
PREDICTOR	Predictor is a computer based system that monitors ALIT messages from electronic switches and alarms from cable pressure system. It has the PC based application that provides reports, Graphs, analysis on products/service revenue and unit data.	LET		X		
RIGHTTOUCH	RightTouch service is any system designed and developed to automate the customer interface by allowing eligible customers to initiate certain telephone service requests via a touch-tone phone. Scheduled for 1.5	BST			X	
RNS	Regional Negotiation System is a replacement for DOE/SONGS & BOCRIS for Customer Services contact personnel. RNS supports sales, ordering, billing, collections functions. In addition, RNS replaces bulky handbooks with on-line information.	BST			X	
ROS	Negotiation System used by Small Business and BBS.	BST			X	
RSAG	Regional Street Address Guide - Mechanized system which will become the corporate data layer source for address information. As the source for address information RSAG supports service negotiation and provisioning. Also, it will address the synchronization problems associated with independently updated, redundant copies of address data.	BST	X		X	
SNECS	Provides switch access for TAFI system.	BST		X		
SOAC	Service Order Analysis and Control - SOAC receives service orders from the service order processor. Parses the FIDs and USOCs, generates loop facility and central office assignment requests, send assigned order back to the SOP, and to other provisioning systems.	Telcordia	X			

## NUMBER POOLING SYSTEMS AND DESCRIPTIONS

SYSTEM	DESCRIPTION	VENDOR	PROVISIONING	M&R	ORDERING	BILLING
SOCS	Service Order Communications System - The primary function of SOCS is the real-time routing of formatted service orders via QMS/BOSIP to physical printers, PC's and mini-computers to support the provisioning and completion of service orders. SOCS is responsible for the collection, storage, and distribution of service orders to all user departments, including the service order driven mechanized systems. SOCS routes service orders to over 113 separate entities and feeds over 25 other mechanized systems that are needed to provide service to the customer and bill the customer. SOCS is also responsible for producing administrative reports.	BST			X	
SONGS	Service Order Negotiation Generation System - SONGS supports the CONSUMER, Small Business, Complex Business and Public COUs. Specific input screens with data and/or prompts are provided to aid negotiation and input of all order types. An interface through the On-Line RSAG Interface for Order Negotiation (ORION) verifies address information with data from Regional Street Address Guide (RSAG). The Central Office Features File Interface (COFFI) and Application for Telephone Number Load, Administration and Selection (ATLAS) provide other required data. Orders are generated from text contained in the CRIS database as well as from input data. Used in the five SCB Bell sites. SONGS has been partially replaced by RNS for Consumer.	BST			X	
SWITCH	Replacement system for COSMOS.	Telcordia	X			
TAFI	Trouble Analysis Facilitation Interface - TAFI is a "rules based" system that guides the user through a series of questions and instructions to resolve a customer's problem. These questions and instructions trigger the gathering of relevant data from the customer and the appropriate Legacy system(s). TAFI processes the data and produces consistent recommendations to resolve the situation. TAFI can only determine the correct course of action based upon the information provided by the user and the Legacy system(s).	BST		X		
TAP	Testing Analysis Plan - Tests pending service orders and, based on test results, takes proactive action to correct problems. Not Impacted by TNP..	BST		X		
VNS	Vendor Negotiation System	BST			X	
WFA/C	The WFA-Control (WFA-C) is the work assignment and control administration part of the WFA product line. WFA-C manages and automates most of the work assignments required to install and repair Special, Carrier, Message, Non-Designed Circuits, and Business/Residential Lines (POTS LINES). WFA-C tracks activities of the entire circuit from Service Order to completion, from Trouble Report to closure and provides detailed Circuit Records and Circuit History. WFA-C is used by all the major centers and support organizations in BellSouth, ACAC, BRC, NISC, NPRC, CIA, INSAC, UNE, WMC, NRC, RTOC, DCSC, 911, SONET and etc.	Telcordia	X	X		