SERVICE PROVIDER NUMBER PORTABILITY DATABASE SERVICE DESCRIPTION AND JUSTIFICATION

BELL ATLANTIC TELEPHONE COMPANIES
TARIFF F.C.C. NO. 1
TRANSMITTAL NO. 1114

NYNEX TELEPHONE COMPANIES
TARIFF F.C.C. NO. 1
TRANSMITTAL NO. 540

March 15, 1999

TABLE OF CONTENTS

Section 1 Introduction

Section 251(b)(2) of the Communications Act[1] requires all local exchange carriers to provide long-term number portability ("LNP") in accordance with requirements prescribed by the Commission. The Commission required LECs operating in the 100 largest MSAs to offer LNP in accordance with a phased implementation schedule beginning on October 1, 1997, and concluding by December 31, 1998. In addition, on June 24, 1996, the Maryland Public Service Commission ordered Bell Atlantic-Maryland to implement LNP in all its service areas in the state by May 1998, and the Commission required that this schedule be met.

In its Third Report and Order in Docket No. 95-116, released May 12, 1998, the Commission adopted regulations permitting incumbent LECs to recover "their carrier-specific costs directly related to providing long-term number portability."[2] The Commission found that these costs included establishing new databases, the carrier's allocation of the shared industry costs, initial upgrades of the network and related systems, and the ongoing costs of providing LNP. The Commission authorized incumbent LECs to recover these costs through two federally tariffed charges: (1) a monthly surcharge billable to all end users served by a number-portability-capable switch and (2) query service charges imposed on carriers for which the LEC performs queries. The Bureau's Memorandum Opinion and Order[3] amplified the Commission's regulations by adopting a two-part test that carriers must use to demonstrate that costs are eligible for recovery. Carriers must show that these costs: (1) would not have been incurred by the carrier

[1] 47 U.S.C. § 251(b)(2).

[2] 47 C.F.R. § 52.33(a).

[3] *Telephone Number Portability Cost Classification Proceeding*, Memorandum Opinion and Order, released December 14, 1998 ("*LNP Cost Classification Order*").

"but for" the implementation of number portability; and (2) were incurred "for the provision of" number portability service.

These transmittals revise Bell Atlantic's tariff for Service Provider Number Portability Database Service (SPNPDS) in its southern states and add SPNPDS to its tariff for its northern states. SPNPDS permits other service providers to use the number portability capabilities of Bell Atlantic's network. The accepted architecture in the industry requires that the next-to-last carrier, N-1, performs the database lookup. SPNPDS will permit the N-1 carrier to obtain routing information from Bell Atlantic's database. If an N-1 carrier delivers a call to Bell Atlantic without having done the lookup, Bell Atlantic must do it, and SPNPDS will permit Bell Atlantic to charge the N-1 carrier for that service. Alternatively, the N-1 carrier may itself launch a query to the Bell Atlantic database. SPNPDS is being provided in compliance with the Commission's Rules and Orders to enable Bell Atlantic to recover its costs of providing these services. Bell Atlantic proposes that these rates go into effect March 30, 1999.

Section 2 Cost and Rate Structure Requirements

In this filing, Bell Atlantic describes the methodology it used to calculate its SPNPDS rates. As directed by the Commission, Bell Atlantic used unseparated costs.[4] The Description and Justification and Charts describe each type of cost that Bell Atlantic seeks to recover through the SPNPDS charges. The costs that Bell Atlantic seeks to recover are limited to those number portability costs Bell Atlantic incurred to provide its database service.

[4] Bell Atlantic has not recovered any of its number portability costs through intrastate rates and has no intention of doing so.

In accordance with paragraphs 8 and 9 of the *LNP Cost Classification Order*, Bell Atlantic is not seeking to recover "general network upgrade costs" including those related system adaptations that generally result from the "impact of portability on existing systems."

Pursuant to paragraph 33 of the *LNP Cost Classification Order*, Bell Atlantic seeks to recover incremental overhead costs related to the provision of LNP. Bell Atlantic used no general overhead allocation factors. Bell Atlantic included only those overhead costs that increase as a direct result of the investments or expenses incurred to provide LNP.

Pursuant to paragraph 47 of the *LNP Cost Classification Order*, Bell Atlantic is including this service under price cap regulation and is treating it as a new service within the meaning of section 61.49(g) of the Commission's Rules. Bell Atlantic used its normal depreciation and amortization practices with respect to the costs of this service.

Section 3 Cost Methodology

Bell Atlantic first identified the incremental costs directly related to providing number portability and then allocated these costs among the charges from which they will be recovered (the end user surcharge and the two database service charges). Standard Bell Atlantic cost study methods were used to convert actual LNP expenditures to the SPNPDS charges proposed in this tariff.

Bell Atlantic's cost study methodology reflects the total service long run incremental cost (TSLRIC) of providing LNP. Chart 1 displays Bell Atlantic's total number portability investment and expenses by the year in which they were or will be incurred (*i.e.*, 1997 through 2003). The *LNP Cost Classification Order* indicated that carriers must file these additional charts:

> "Charts 3a and 3b should be used for prearranged queries; Charts 4a and 4b for default queries; and Charts 5a and 5b for database services. Use subsequent numbers in this series for any additional query service offerings."

Bell Atlantic does not distinguish between prearranged and default queries, and it will show its query service costs on Charts 4a and 4b as default queries, and its database service costs on 5a and 5b. Detailed capital investment and expenses by year by accounts are shown on the supporting workpapers.

Section 3.1 Capital Investment

The LNP engineered, furnished and installed capital investment inputs to the cost study were identified from Bell Atlantic's capital management tracking systems or were calculated by engineers. Capital costs allocated to these services will be depreciated in accordance with Bell Atlantic's normal depreciation schedules.

- Capital investments were identified and were allocated to SPNPDS in the manner described in Section 5. The cost of money at 11.25% was applied to the 1997 and 1998 investments to recognize the fact that Bell Atlantic does not begin to recover them until 1999. See Workpapers and Charts 4a and 5a.
- The sum of the present worth of capital investments was calculated using 11.25% cost of money. See Charts 4b and 5b.
- Factors for depreciation, cost of money, taxes, and maintenance and administration were used to calculate the annual capital cost. See Charts 4b and 5b.

Section 3.2 Operating Expenses

Bell Atlantic identified LNP direct expenses from vendor bills, contracts and other internal tracking mechanisms (such as keep cost orders) established to track LNP costs.

- Operating expenses to provide number portability were identified and allocated to SPNPDS in the manner described in Section 5. The cost of money at 11.25% was

applied to the 1997 and 1998 expenses to recognize the fact that Bell Atlantic does not begin to recover them until 1999. See Workpapers and Chart 4a and 5a.

- The sum of the present worth of the operating expenses was calculated using 11.25% cost of money. See Chart 4b and 5b.
- Annual operating expenses were calculated by converting the present worth of expenses into an annuity.

* * * *

Bell Atlantic calculated the total annual operating expenses and annual capital costs for each type of service. This amount was divided by the annual demand to produce the total direct costs per database query. The incremental overhead factor was applied to each direct cost figure to produce the total costs per query for each service. In establishing the rate for both services, Bell Atlantic included a reasonable loading that has been previously used in comparable new service filings.

Section 3.3 Non-recurring Charge

Bell Atlantic performed a Time and Cost Study to determine the work activity costs involved in establishing or rearranging a customer's database query service. These work activities include planning and implementing the necessary STP translations to establish routing and gateway screening associated with the customer's signaling point code. The work activities involve three types of Bell Atlantic employees, as noted in Chart 6. Shown on that Chart is the amount of time estimated to perform each activity and the associated labor rate.

Section 3.4 New Service Information

Bell Atlantic is projecting first-year revenue of $5,819,819 based on the forecast demand for these services.

In compliance with the Commission's rules for pricing new services, Bell Atlantic has developed ratios of cost to investment and cost to rate, and they are shown on Charts 4b and 5b.

The services covered by this filing will be included in the Local Switching category of the Traffic Sensitive basket.

These services are not cross-elastic with any other switched access price cap service.

Section 4 LNP Costs

This section describes, by LNP function, the dedicated LNP investment and expenses. No dedicated LNP costs were incurred for Signaling Transfer Points (STPs).

To provide number portability, carriers were required to buy new equipment. In addition to the purchase price of the equipment, and the costs of installation and maintenance, the Commission concluded that carriers may recover the other direct costs associated with it.[5] This includes depreciation, taxes, administration, return on investment, building modifications and power.[6]

Chart 1 contains a breakdown of the total LNP costs for each of these functional areas. Chart 4a and 5a show the portions of the total LNP costs allocated to the query and database services.

Section 4.1 Shared Industry Costs

The Commission ordered the creation of regional number portability administration centers (NPACs) to be maintained by third-party administrators. Each telecommunications carrier is required to pay its allocated share of the data base administrator's costs,[7] and the Commission

---

[5] *Third Report and Order*, 13 FCC Rcd 11701, ¶ 74 (1998).

[6] The Commission has allowed carriers to recover these direct costs even where it has disallowed general overheads. *800 Data Base Access Tariffs and the 800 Service Management System Tariff*, 11 FCC Rcd 15227, 15256 n.117 (1996).

[7] The costs included in this filing are based on the latest information received from the NPAC administrator.

has authorized carriers to recover their share of these costs through LNP rates. Both the query service and the database query service will recover their allocated share of these costs.

Section 4.2 SMS Signaling Links

Bell Atlantic leases facilities that connect its LNP Advanced Service Management Systems (ASMS) and Local Service Management Systems (LSMS) to the Mid-Atlantic and Northeast region NPACs. These facilities are used to transmit information between Bell Atlantic and those NPACs. Both the query service and the database query service will recover their allocated share of these costs.

Section 4.3 Signaling Control Points (SCPs)

Bell Atlantic deployed five new SCP pairs to serve as LNP databases. These databases contain call processing instructions (*i.e.*, LRNs) for ported telephone numbers, and this information is used to route calls to the correct switch. At this time, interswitch traffic from 78% of Bell Atlantic's access lines requires a query to the LNP database. By the end of 1999, 100% of Bell Atlantic's interswitch traffic will require a LNP query. Costs were incurred for power and land and buildings preparation work for the installation of the LNP databases. Both the query service and the database query service will recover their allocated share of these costs.

Prior to making number portability commercially available, Bell Atlantic conducted interoperability tests to ensure that its LNP SCPs and existing services would perform properly when number portability was implemented. These dedicated LNP costs are shown in Accounts 6532 through 6724 on Workpapers 1 and 2.

Section 4.4 Links to the LNP Databases (SCP Links)

Bell Atlantic uses its SS7 network to transport queries to and responses from its LNP databases. Bell Atlantic had to construct entirely new SS7 transport facilities to carry number

portability database queries to these new databases. These costs are fully recovered through the LNP rates.

First, LNP required new SS7 signaling links to be constructed between a Local Signal Transfer Point (LSTP) pair and the LNP database pair. These facilities transport number portability queries from the LSTP to the LNP database. Diverse link facilities are provisioned between the LSTP and LNP database pairs to ensure reliability and survivability. Both the query service and the database query service will recover their allocated share of these costs.

Second, in certain high volume traffic areas, Bell Atlantic also deployed dedicated SS7 links between its Service Switching Points (SSPs) and the LNP databases. LNP queries from these switches do not traverse the LSTP but are transported directly from the SSP to the LNP database. Each SSP has diverse links provisioned to the LNP database pair for reliability and survivability purposes. These costs are recovered through the query service rate, but not the database query rate.

Section 4.5 Links to Service Transfer Points (STP Links)

Number portability required Bell Atlantic to add capacity to the SS7 links between its SSPs and STPs to carry the number portability queries and responses. These costs were directly related to the provision of number portability and are recoverable through Bell Atlantic's query charge.

As part of its planning for the deployment of number portability, Bell Atlantic conducted traffic studies to establish the current usage level on the STP links. Bell Atlantic's general engineering practice utilizes the following rules for the addition of links:

1. A planning period of five years is used — that is, links are engineered to serve the current traffic capacity plus the next five year requirements.
2. SS7 links are 56 kilobits per second circuits.

3. Links are added in pairs to ensure reliability within the network. If one link fails, the other link is engineered to carry the traffic.
4. Link capacity is 40% occupancy (0.4 Erlangs).
5. Links are added when the occupancy level is predicted to meet or exceed 35% of capacity. This 35% "trigger" for adding links allows for the extended time period required for the entire implementation process for a link addition (three to six months).

Traffic forecasting and link sizing methodology involved the running of busy hour call originations through a Bellcore model, Services IMPAct and Capacity analysis Tool (SIMPACT). SIMPACT is a Lotus 123 based spreadsheet model that can be used to estimate the signaling load on signaling nodes and links attributable to a single service or mix of services. The model accepts input in the form of busy hour activations, engineering rules and serving arrangements. Its output includes loads on the nodes and links. For links, it is incremental thousands of octets per second. The program also produces the average increase in link utilization, link delay and queuing statistics resulting from a given service.

Using the engineering guidelines above, Bell Atlantic first employed SIMPACT to project the traffic occupancy of all links over the five-year planning period in the absence of number portability. Links predicted to be added as a result of this process were a result of normal growth and, therefore, not included in the LNP project. In addition, Bell Atlantic adopted the general assumptions used by various vendors in the industry to predict the impacts of number portability on the network. Assumptions used in this process were:

1. Each network access line generates 1.7 originating, intraLATA, inter-office calls during the busy hour.

2. Every originating intraLATA, inter-office call to a portable NPA/NXX will generate a LNP database dip if no query limiting mechanism is in place.
3. Each database query and response will generate 200 total 8-bit octets (100 octets for the query and 100 octets for the response).

The computer model was then run again to determine the predicted occupancy levels with LNP. The results of this model were reviewed to determine if the predicted increase in traffic due to the implementation of LNP caused the occupancy to go beyond the 35% guideline and/or the link growth predicted under normal growth conditions. For situations that resulted in an occupancy level of 35% or more during the planning period, new links were added.

An example of this process: Number portability would generate 108,800,000 additional signaling bits per hour from a 40,000-line office — 1.7 queried calls times 40,000 lines times 200 octets per call times 8 bits per octet. This is divided by 3600 seconds, to get 30,222 bits per second. This load would be spread over each one of the paired links, adding 15,111 bit per second per link, or about 27 percent of the capacity of the link. This would be added to the existing occupancy to determine the number portability link requirement.

Bell Atlantic had no plans to add this capacity absent LNP and, based upon what Bell Atlantic knows today about market conditions, it would not have had any plans to add it in the course of Bell Atlantic's five-year planning period absent LNP. "But for" the requirement to provide LNP and in direct support of the need to provision LNP, Bell Atlantic would not have made this additional expenditure.

Section 4.6 Signaling Switching Points (SSPs), and End Office and Tandem Switches

An SSP is an SS7-capable switch that has the ability to suspend call processing, formulate an SCP query message, transmit that query message, receive an SCP reply, and then resume proper processing of the call. All switches in Bell Atlantic's network are SSPs. Bell Atlantic has therefore included all the costs to modify its switches to provide LNP in the SSP category, rather than in the end office or tandem categories. These costs are recoverable through Bell Atlantic's query service charge.

Bell Atlantic has the following types of SSPs in its network: Lucent 5ESS and 1AESS, Nortel DMS100, DMS 200 and DMS10, and Siemens EWSD. Each of them had to be modified to provide LNP.

1. Bell Atlantic had to deploy LRN software in every SSP in order to process calls in a LNP environment. This software allows the SSP to recognize whether a query to a LNP database is required to complete a call. When a query is required, the SSP suspends call processing, creates a LNP query message and launches it to the LNP database. When the call is to a ported number, the database returns the appropriate LRN to the querying SSP, and the SSP includes it in the call setup message for proper call routing. LRN software also populates a field in the call setup message to indicate that the call has already been queried. Once these steps are completed the call is allowed to resume and is routed based on the LRN. These costs are shown in the year in which the vendor payment was made and are shown in Accounts 1330, 6212 and 2690.

2. Bell Atlantic included the cost of a feature package that enables Bell Atlantic to provide number portability in an area in which an end office SSP serves numbers in more than one area code (such as, where there has been an area code overlay). This feature expands the number

group capacity of the SSP to permit it to be able to recognize the same NXX code in more than one NPA. This 1999 cost is shown in Account 2690.

3. Bell Atlantic incurred costs to set LRN triggers on all the NPA-NXXs that were designated to be LNP capable in Bell Atlantic's switches. These costs were incurred as a direct result of the requirement to provide LNP and are reflected in Bell Atlantic's total SSP costs. Bell Atlantic performed a labor cost study to determine its number portability testing and translations costs.[8] An estimate of the number of hours was obtained from the network organization. These hours were multiplied by the appropriate directly assigned labor rate. These 1997 through 1999 costs are shown in Accounts 6532 through 6535 on Workpapers 1-3.

4. Bell Atlantic contracted for engineering capacity studies to determine the impact of LNP on its switches. The cost of these studies is specific to LNP and would not have been incurred but for the requirement to provide LNP. These 1997 – 1999 costs are identified separately on Workpapers 1-3.

5. Number portability places significant additional demands on the processing capacity of SSPs. Using data supplied by the switch manufacturers, Bell Atlantic calculated this additional demand and developed a plan for adding processor capacity where it was necessary to provide number portability. In this process, Bell Atlantic also identified any switches for which increased processor capacity was already planned to accommodate normal growth. As these upgrades would have taken place absent LNP, they are not included in the costs Bell Atlantic is seeking to recover. Only those switches for which a processor upgrade was required to provide LNP were included. Bell Atlantic did not add any non-LNP growth factors to create a processor upgrade

[8] Bell Atlantic is not seeking to recover any costs of reprogramming its SSPs to perform ten-digit translation.

requirement for these switches. As the cost of these upgrades would not have been incurred absent number portability and as these investments will not generate any additional revenues for Bell Atlantic, they are appropriately treated as dedicated costs of that service.

Bell Atlantic had no plans to install these processors absent LNP and, based upon what Bell Atlantic knows today about market conditions, it would not have any plans to install them in the course of Bell Atlantic's five-year planning period absent LNP or some other external regulatory requirement. While the total number of access lines provided by all carriers will continue to grow, Bell Atlantic's line growth will be affected by increasing local service competition. Large, integrated, facilities-based carriers have announced newly invigorated plans to provide local service, notably AT&T's announcement that it would control 25% of the local market within five years. This competitive effect is also shown in Bell Atlantic's access line forecast. These costs are identified separately on Workpapers 1-3.

6. When it was doing its network planning for number portability, Bell Atlantic identified three 1AESS switches which were already at or slightly above recommended processor occupancy levels and which Bell Atlantic planned to replace in the near term. It was determined that these switches could not accommodate the additional processor load associated with LNP. Bell Atlantic could have invested more capital into these analog switches, but that money would have been wasted when the switch was removed. Bell Atlantic, therefore, decided to advance the replacement of these switches with digital technology. The costs of this advancement (but not the full cost of the replacement) are included as a direct cost of number portability.

Section 4.7 Operations Support Systems (OSSs)

Bell Atlantic had to deploy two new operations support systems to enable it to communicate with the regional NPACs. A dedicated LNP Infrastructure Systems Group was also

established to provide ongoing support for these new number portability OSSs. Each of these new, dedicated LNP costs is described below. Both the query service and the database query service will recover their allocated share of these costs.

Advanced Service Management Systems (ASMS) — Bell Atlantic deployed three ASMSs in its network to interface with the NPACs. The ASMS is the system used by Bell Atlantic to exchange porting request information with the regional NPACs. The ASMS extracts porting information from service orders and originates number portability "create messages" which are then transmitted to the NPAC. These messages contain information such as the porting telephone number, the LRN, due date and service provider identification. Upon completion of the porting request, the ASMS sends an activation message to the NPAC. The ASMS also performs auditing and validation functions on porting activities. The projected cost ($2,000,000 per year) of new software releases has been included as part of Account 6724.

Local Service Management System (LSMS) — Bell Atlantic deployed five LSMSs in its network to interface with the NPACs. The LSMS is the system that receives ported number information from the NPAC and downloads that information to the LNP databases. LSMS updates are required to ensure proper call routing instructions are available to the network so calls to ported numbers can be processed and completed efficiently. Estimated costs for new software releases in 2000 through 2003 are shown in Account 2690 on Workpapers 4-7.

LNP Infrastructure Systems Group — This group is a new LNP-dedicated organization that consists of eight managers and contracted labor. The LNP Infrastructure Systems Group is responsible for the ongoing support of the ASMSs and LSMSs and their interfaces with the NPACs. Major areas of recurring support include enhancement specification and release planning with the product vendors; installation, testing and implementation of system releases; system administration; and production support. In 1998 alone, there were 28 releases impacting these systems and this pace is anticipated to continue as the industry's LNP processes adapt to handle

increasing volumes of porting transactions. This group also provides enhanced support during large porting events to ensure immediate response if any problems are encountered. It is anticipated that the pace of system changes to the system will continue as the industry's LNP processes adapt to handle an increasing volume of LNP transactions. The costs for this group are included as part of Account 6724 for all study years.

Section 4.8 Other Number Portability Costs

In addition to the costs described above, Bell Atlantic incurred additional number portability costs. These costs have been separately identified on the Charts as "Other LNP Costs." These costs would not have been incurred "but for" the implementation of LNP, and these expenses do not benefit any other service. An allocated portion of these costs are recoverable through Bell Atlantic's query service charge.

1. Bell Atlantic incurred product and project management in the planning, design, and engineering of the LNP network architecture. These costs include labor and other direct costs as necessary to meet the requirements of providing LNP. Actual costs were obtained from the keep cost orders established to track LNP costs.

2. Bell Atlantic included incremental labor costs incurred by its Regional CLEC Coordination Centers (RCCCs). These centers must verify orders for LNP field identification codes, verify all telephone numbers that are being ported in ASMS, and investigate and correct any discrepancies before porting can take place. Only the incremental time to perform this specific function in the RCCC has been included. Based on January 1999 data, it was determined that it takes approximately five minutes per porting transaction. The expected number of porting transactions was multiplied by the time factor and converted into hours. These hours were multiplied by the directly assigned labor rate to determine the costs. The year over year cost

increase is a function of the increased amount of porting. This cost is included in Account 6534 beginning in 1999.

3. Bell Atlantic had to modify its Automated Alternative Billing Services –Automated Position Systems to enable operator assisted calls to be processed properly in an LNP environment. To accomplish this, Bell Atlantic had to upgrade these systems with new processor boards that were capable of interacting with the LNP software. Therefore, Bell Atlantic seeks the costs of advancement for this LNP related investment. This amount is shown on Workpaper 2.

Finally, Bell Atlantic incurred the following costs that benefit the database query service as well as other non-LNP services:

4. The SPNP database query service also requires the use of adjunct systems to measure and record queries to the LNP database launched from other carriers' networks. Adjunct recording systems were required because Bell Atlantic's number portability SCPs can count the number of LNP queries received from a carrier, but can not record usage in a format that can be used by Bell Atlantic billing systems The usage measurement systems that Bell Atlantic is currently using in its northern states was deployed in 1997. Bell Atlantic will be deploying a similar usage measurement system in its southern states in 1999, and it will replace the current manual process of converting number portability database peg counts into a format acceptable to Bell Atlantic billing systems.. These adjunct systems will also be used for fraud protection, network surveillance and monitoring and recording for other services. Based on expected system utilization, Bell Atlantic estimates number portability utilizes 2% of system capacity and has allocated 2% of total system costs to the SPNP database query service.

Section 4.9 Incremental Overhead Costs

The proposed SPNPDS charges are set at levels that ensure recovery of the incremental costs incurred to provide LNP, including, consistent with the Commission's determinations, incremental overhead costs. The *LNP Cost Classification Order* provided guidance on how such overheads were to be calculated, and Bell Atlantic's approach is consistent with that order.

Bell Atlantic has no special study to calculate allocation factors to identify the incremental portion of overhead costs directly related to LNP. The Bureau's *LNP Cost Classification Order* suggests that the overhead allocation factors used by state commissions to price unbundled network elements (UNEs) could serve as a reasonable estimate of the true overhead costs that the Commission should expect to be created by LNP. Accordingly, Bell Atlantic utilized its existing TELRIC UNE wholesale overhead study as a starting point to identify the LNP incremental overhead allocation factor.

By definition, the UNE overhead study already excludes common overhead costs associated with Bell Atlantic's retail operation and other overhead costs directly assigned to other products and services. The LNP incremental overhead factor was developed by analyzing each investment and on-going expense account in the UNE study. Only those overhead accounts impacted by LNP were included in the LNP factor development. Specifically, Bell Atlantic excluded all overhead investment related expenses associated with providing corporate services (*e.g.*, Bell Atlantic excluded the computers, furniture, and other investment costs that support corporate offices, such as Human Resources, Legal, Regulatory, Accounting and Finance, etc.). Bell Atlantic did include only those overhead expenses associated with management activities and functions directly related to providing LNP. For example, Legal, Regulatory, Accounting and Finance personnel, and their supervisory management, have been involved in and responsible for

managing Bell Atlantic's provision of LNP, including the preparation and corporate funding of LNP plans. Other support expenses such as Research and Development and Procurement have already been directly assigned to LNP through the other operating expense annual cost factors and were not considered in the incremental overhead study.

That the LNP incremental overhead factor is reasonable is apparent when it is compared to the state approved UNE common overhead factors in Bell Atlantic's region. State commission mandated UNE overhead factors in most Bell Atlantic states are in the 10 to 12% range, roughly double the factor Bell Atlantic used in this filing.[9]

Section 5 Cost Allocation Among LNP Charges

Paragraph 44 of the *LNP Cost Classification Order* directs carriers to use relative capacity requirements to allocate costs among LNP services, rather than relative usage (number of queries to the number portability databases), or to provide specific evidence establishing that their demand forecast cannot be based on a relative capacity basis. Bell Atlantic engineers analyzed actual LNP traffic volumes associated with different types of queries, mapped those volumes to the busy hour and found no relative change in the percent distribution of queries by LNP service. For that reason, Bell Atlantic has concluded that an allocation based on relative capacity is identical to one based on relative usage.

Bell Atlantic's LNP databases process three types of queries — those received directly from networks of other carriers ("query-only service"), those sent from Bell Atlantic switches in connection with unqueried calls Bell Atlantic receives from other carriers ("default queries" and together with query service, "external queries"), and those sent from Bell Atlantic switches in

[9] Bell Atlantic state filed UNE overhead factors were in the 16% to 18% range.

connection with Bell Atlantic's own calls ("internal queries").[10] Bell Atlantic used forecasts of these three types of queries to allocate number portability costs among the three different charges. As reflected in the demand forecast supporting the SPNP surcharge, more than 96 percent of the queries are internal.

Bell Atlantic forecast the number of internal queries by starting with actual volumes of number portability database queries and interswitch calls for 1998. Based on these actuals, Bell Atlantic forecast internal queries in future years by assuming a 5 percent growth in interswitch call volumes in 1999 and call volume changes in later years.

Bell Atlantic forecast the number of external queries by starting with the actual numbers of calls that other carriers terminate on our network and then projected these numbers for the forecast period based on the expected growth rates of traffic from different types of carriers. Bell Atlantic then made judgments, based on its knowledge of other carriers' current activities and plans, about the extent to which these carriers would perform number portability queries themselves. For 1999, Bell Atlantic assumed that the Big Three interexchange carriers (and most of the resellers that use their networks) would do their own queries and would not have Bell Atlantic perform queries for them. Bell Atlantic also assumed that it would not do queries on traffic from the larger independents and CLECs. The remaining queries represent the external query forecast for 1999. For later years, Bell Atlantic assumed that more carriers would deploy

[10] As Bell Atlantic has previously explained, we believe that it is appropriate and consistent with the Commission's orders for Bell Atlantic to bill carriers for queries Bell Atlantic performs for them as soon as number portability is available in an NXX. A number of carriers have opposed and continue to oppose paying for such queries. In order to end this controversy, Bell Atlantic is now proposing that it not bill carriers for these queries until the first telephone number is ported in an NXX. Queries that Bell Atlantic makes before the first number is ported are included as "internal queries" for cost allocation purposes.

their own databases and database querying capabilities and that there would be less external demand on Bell Atlantic's number portability databases.

Bell Atlantic's SPNPDS does not use or benefit from all Bell Atlantic's number portability expenses. For example, the query-only service benefits from only the NPAC, the number portability databases, the OSSs that support them and the associated links. The default query service benefits from all these expenditures plus the costs incurred at the SSP and in the links to carry the queries to the database. The database service elements recover their allocated share of these types of costs.

Section 6. SPNPDS Rate Structure

Bell Atlantic will charge the following SPNPDS rates:

- SPNPDS Query - charged when Bell Atlantic performs a database lookup for an unqueried call delivered to its network.[11]

- SPNPDS Database Query - charged when another carrier sends a number portability query to Bell Atlantic's number portability database.

- SPNPDS Service Activation or Rearrangement - a non-recurring charge that applies to each request to activate or rearrange a customer's SPNPDS service.

The non-recurring charge is applicable only to the database query service — where another carrier launches the query to Bell Atlantic's number portability database — not where Bell Atlantic initiates the query.

Section 7 Charts and Workpapers

Bell Atlantic developed charts in compliance with the Bureau's *LNP Cost Classification Order*, paragraphs 48 through 54. Chart 1 displays seven years of incremental investments and

expenses for all combined LNP services as well as the query demand for each year. Charts 4a and 5a display the costs shown on Chart 1 that are recovered through the query charge and the database charge. Charts 4b and 5b display the revenue requirement development based on the costs shown on Charts 4a and 5a. Chart 6 shows the development of the non-recurring charge. Workpapers 1 through 7 display dedicated number portability costs by Part 32 account, total gross investment, and the percent assigned to the LNP database services for each year.

[11] The rate for end office and tandem queries is the same.