

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Number Portability Query Services

CC Docket No. 98-14
CCB/CPD 98-25

DIRECT CASE OF BELL ATLANTIC

Bell Atlantic¹ submits this direct case in response to the Commission's June 17 Order Designating Issues for Investigation.

As a preliminary matter, Bell Atlantic first developed its tariff for Service Provider Number Portability Database Service in October of last year and revised it this March. Unfortunately, Bell Atlantic did not have the benefit of the Commission's May 5th *Cost Recovery Order* at those times.² That order prescribes a cost recovery regime for number portability costs that is very different from the Commission's normal practices, practices that were in effect and that Bell Atlantic followed when it developed this tariff. The Commission should not be surprised that Bell Atlantic's tariff does not follow the rules that were prescribed after the tariff went into effect. The Commission should not find a tariff unlawful (and require refunds) for failing to comply with rules that were not in effect or policies that had not been formulated when the tariff was filed.

¹ The Bell Atlantic telephone companies are Bell Atlantic-Delaware, Inc.; Bell Atlantic-Maryland, Inc.; Bell Atlantic-New Jersey, Inc.; Bell Atlantic-Pennsylvania, Inc.; Bell Atlantic-Virginia, Inc.; Bell Atlantic-Washington, D.C., Inc.; Bell Atlantic-West Virginia, Inc..

² *Telephone Number Portability*, Third Report and Order, CC Docket No. 95-116, FCC 98-82, rel. May 12, 1998.

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A. Development of Charges

In this tariff, Bell Atlantic seeks to recover its costs directly related to providing query services. As it regularly does in other tariffs filed with the Commission, Bell Atlantic included general overhead loading factors in calculating its costs. This was certainly proper when the tariff was filed and, Bell Atlantic believes, should still be proper. Whatever the effect of the Commission's new rules in the future, these rules do not make *this tariff* unlawful, requiring Bell Atlantic to pay refunds to carriers that have used the service.

The *Designation Order* asks about Bell Atlantic's OSS costs.³ All the OSS costs recovered through this tariff were incurred to develop or modify systems solely because of the requirement to provide number portability, and these costs, therefore, are directly related to the provision of number portability and are recoverable through this tariff. Number portability fundamentally changes the organization of the telephone network and the way the network handles calls. These changes require corresponding changes in the systems — the OSSs — that support the network. Number portability required completely new systems. For example:

- Bell Atlantic had to develop and deploy new OSSs to manage the process of porting numbers between service providers, such as a new service order administration system to update the Number Portability Administration Center.

Number portability also required changes in existing systems.

- Network surveillance and monitoring systems had to be modified because of the effects number portability has on switch and signaling traffic. Telephone number administration support systems were also modified to reflect changes in number assignments and inventory as customers port into or out of Bell Atlantic.

³ *Designation Order* ¶ 7.

- Provisioning and maintenance systems required changes because NPA-NXX can no longer be relied on to identify an end user's serving switch or service provider. Enhancements allow these support systems to recognize and use location routing number information in the provisioning and maintenance process. For example, when an end user or carrier initiates a trouble report, the technician can no longer assume the trouble report is Bell Atlantic's based on the subscriber's telephone number but must access information in an operation support system to determine whether the end user has changed her service provider and the name of the service provider.
- Provisioning systems were modified to route service requests based on LRN, as the NPA-NXX can no longer be used. Service order processing systems were modified to ensure porting information flows from Bell Atlantic to the service order administration system that communicates this information to the regional number administration center. Once a provisioning request has been completed, the provisioning system will update the maintenance systems with the appropriate service provider information.
- Billing system changes were also required to maintain billing integrity and accuracy now that NPA-NXX cannot be relied on to determine the carrier or serving switch associated with a call.

The *Designation Order* states that "it is not clear how SS7 costs were allocated between portability services and other services."⁴ Bell Atlantic allocated a portion of pre-existing SS7 investment to number portability services based upon the projected usage of those SS7 facilities for the different services. Specifically, Bell Atlantic utilized a model that developed the average unit per busy hour octet investment for each service that used the pre-existing SS7 network, allocating to each service a portion of the investment based on its usage of the network. To get its total SS7 number portability investment, Bell Atlantic added to this figure the amount of new SS7 investment that would be required to handle number portability signaling.

⁴ *Designation Order* ¶ 7.

The *Designation Order* indicates that Bell Atlantic's method of allocating number portability costs to query services based on demand forecasts appears reasonable if its demand forecasts are reasonable.⁵ As shown below, this is the case.

The *Designation Order* asks why Bell Atlantic used different "markups" in its cost studies.⁶ The numbers referred to are not factors by which Bell Atlantic marked up its costs to arrive at its rates; they are simply rate-to-cost ratios, which show by how much each rate exceeds the direct cost of providing the service. All these figures are in the reasonable range and are consistent with rates in other tariffs.

The *Designation Order* questions the magnitude of the transport component of the end office query charge.⁷ The end office query rate must recover additional switching and transport required for those queries but that are not required for the simpler tandem query — the transport costs associated with re-originating a call from the end office to the other carrier's trunk group at the access tandem, including the local usage elements of call set-up, holding and conversation time. When a carrier delivers an unqueried call to a tandem, that switch suspends the call, launches a query and routes the call as indicated in the response. When a carrier delivers an unqueried call to an end office, the end office suspends call processing and unlike a tandem switch, checks its internal line translation information to determine whether the called number is in the switch. If this internal information indicates the called number is still in the switch, then normal call processing resumes, and the call is completed within the switch. However, if it is

⁵ *Designation Order* ¶ 8.

⁶ *Designation Order* ¶ 9.

⁷ *Designation Order* ¶ 10.

not, the call remains suspended, and the switch launches a query to the number portability database. When the response is received, the end office must formulate a new call setup message and select a trunk to transport the call from the end office to the tandem, where the switch routes the call to the correct carrier. The end office query includes steps not involved in the tandem query (call re-origination, transport between the end office and access tandem, tandem switching and hand off to the other carrier), and the rate reflects the incremental costs of those steps.⁸

B. Demand Forecasts

The *Designation Order* questions whether Bell Atlantic's demand forecast is reasonable.⁹ Bell Atlantic's methodology is described in the Description and Justification.¹⁰ Bell Atlantic

⁸ Bell Atlantic calculated a weighted average unit cost from TELRIC cost study information available for each of the cost elements. The cost of call re-origination was determined on a per call basis. The end-office-to-access-tandem transport and tandem switching costs are usage sensitive. Since no measurements of end office re-originated calls were available, Bell Atlantic applied a weighted average call length to the transport and switching element per minute unit costs. The total of the three elements is represented as the "transport" component of the SPNP Query - End Office rate element (Workpaper 6-2, Pg. 1). Bell Atlantic provided details on the query transport cost development showing the TELRIC for each element and the weighted average cost and call length (Workpaper 6-8, Pg. 1).

⁹ *Designation Order* ¶ 11.

¹⁰ D&J at 4-5 & Workpaper 6-5. Bell Atlantic conducted studies of its own call (and query) volumes and estimated the number of queries from other carriers.

developed a five-year forecast of both internal¹¹ and external¹² query demand and then “levelized” the total demand to develop a representative twelve-month demand. This practice is consistent with the Commission’s Rules governing new service filings.

The levelization process takes the forecast demand (which typically fluctuates each year over the planning period) and makes it a common number that can be used over the entire planning period of the cost study. In the process, the demand for the outward years of the planning period are “present worthed” using a time value of money calculation based on the stated cost of money. The network component expenditures needed to accommodate the forward looking demand were also “present worthed.” An annuity factor is then applied to develop an even stream of numbers that can be used every year. The cost results derived from this method of calculation are lower than the costs of the average cumulative sum of investment/demand because the capital and operating expenses from high first year network deployment are spread over the later study years when network growth occurs at a slower pace, but demand is still increasing.

¹¹ Bell Atlantic’s internal demand was based on intraLATA interswitch traffic that originated from its offices equipped with number portability capability, as well as the queries generated by Bell Atlantic’s tandems for calls originated by Bell Atlantic offices that do not have that capability. Bell Atlantic also included a projection of intraoffice queries, which was based on Bell Atlantic’s assessment of the impact of local competition. Bell Atlantic’s own queries are more than 99 percent of the total.

¹² External demand was based on forecast terminating traffic to be delivered to Bell Atlantic. Bell Atlantic stated its demand assumptions in the tariff filing. Bell Atlantic had originally assumed it would perform queries for wireless and independent telephone companies through 1999. It is possible for these customers to migrate to other sources for LRN information sooner than 1999, but Bell Atlantic did not assume significant demand from these carriers after 1999.

C. Querying and Charging on All Portable NXXs

Bell Atlantic charges carriers only for database queries it actually performs. Bell Atlantic performs queries when an NXX is opened for portability, not when the first telephone number is ported from that NXX, as some carriers have proposed. This is consistent with the way Bell Atlantic processes its own calls and is reasonable. Any other procedure would be cumbersome and prone to error.

In the states covered by this tariff, Bell Atlantic is currently providing number portability to more than 12.8 million access lines throughout the State of Maryland and in five MSAs covered by this tariff (Philadelphia, Washington, Pittsburgh, Newark and Norfolk). Bell Atlantic has implemented number portability very broadly in these areas because other carriers requested such deployment.¹³

It has been suggested that Bell Atlantic should wait to set the triggers and to perform the translations to launch these queries until the five-day window between when Bell Atlantic receives the order to port the first number in an NXX and the actual porting of that number. And they want Bell Atlantic to go through this “wait then hurry up” process for each one of the thousands of NXXs involved.

This suggestion is unreasonable. Bell Atlantic must provide number portability in almost 4500 NXXs in 586 switches in the states covered by this tariff. It is most efficient for Bell Atlantic to implement number portability in an organized, orderly way — to do at one time all the translations work to indicate in every switch (including tandems) that a particular NXX is portable,

¹³ *Investigation into Long Term Solutions to Number Portability in Maryland*, Order No. 72708 at 6, Case No. 8704 (Md PSC June 24, 1996).

in accordance with a schedule developed with the industry. It would be extremely inefficient and unnecessarily costly for Bell Atlantic to wait to do this work until the five-day window between the order to port the first number in an NXX and the actual porting of that number. Even more important than the obvious inefficiency, doing the work in the way these commentators propose is far more likely to produce service affecting mistakes and leaves no opportunity for testing to discover them in time. This is especially important for Bell Atlantic's tandem switches, as mistakes at the tandem level would affect service in all the subtending switches. Bell Atlantic is opposed to subjecting its customers to such a risky process.

Bell Atlantic estimates that it would take about three hours' work per NXX to open each NXX individually as these commentators request. With loadings, this would add some \$1.2 million to the cost of the tandem query service, a cost that would be recovered only from the users of this service. If Bell Atlantic were to recover this up-front cost over two years, this process would increase the per query charge by at least 40 percent.

It should also be noted that there are other providers of query services,¹⁴ and carriers do not have to use Bell Atlantic's database service if they do not like the terms or can get a deal they like better elsewhere. Providers with smaller networks — fewer switches to re-program and update — might be able to arrange their query services in the way these commentators want. If they can, then these commentators are certainly free to use those other services, and they should do so. They should not, however, try to impose on Bell Atlantic a procedure for updating its network that is inefficient, unsound and unreliable.

¹⁴ See Comments of MCI at 3 and Comments of Illuminet at 6-7 in CC Docket 98-14, CCB/CPD 97-52, dated Feb. 20, 1998.

The *Designation Order* asks whether it would be reasonable to require Bell Atlantic “to recover all of [its] query service costs associated with all NXXs only in NXXs from which a number has ported.”¹⁵ Under this approach, Bell Atlantic would perform all the queries it does today and recover the costs of all those queries, but recover them only from carriers for whom Bell Atlantic performs queries in NXXs where numbers have been ported. It is not clear to Bell Atlantic that the economic effect of this process would be any different from the existing process — that the same carriers would not end up paying Bell Atlantic the same amount of money. If it is different — if some carriers would pay more and others, less — then the proposal would seem inconsistent with the Commission’s overall policy of having carriers that generate costs pay for them. Such a system would be more costly to Bell Atlantic, as it would have to modify its billing systems to bill the query charge according to an ever-changing list of NXXs. Finally, Bell Atlantic has no way to predict in advance how many NXXs will actually have porting activity and, therefore, no way to develop the rate to be charged.

¹⁵*Designation Order* ¶ 14.

Conclusion

Bell Atlantic's rates, terms and conditions for this service are reasonable, and the Commission should conclude its investigation of this tariff.

Respectfully submitted,



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