

Telephone Utilities Exchange Carrier Association

Tariff F.C.C. No. 2

Transmittal No. 206

Description and Justification

The Telephone Utilities Exchange Carrier Association (TUECA) hereby submits the following information in support of the accompanying tariff filing, as required by Sections 61.38 and 61.49(f)(3) of the Federal Communications Commission's Rules and Regulations.

This filing is being made on 15 days' notice under the Federal Communications Commission's streamlined filing procedures and proposes the addition of rates and regulations introducing Local Number Portability (LNP) Query Service to TUECA Tariff F.C.C. No. 2.

Certain portions of the cost support material for this filing are being submitted under separate cover with a request that it be treated as confidential under the Freedom of Information Act. The information constitutes confidential business information which, if disclosed, could substantially harm the competitive position of TUECA.

1.0 Local Number Portability (LNP) Query Service

1.1 Service Description

In this filing, TUECA proposes to add rates and regulations implementing LNP Query Service as an interstate service offering. LNP Query Service utilizes location routing number (LRN) architecture to query a database to secure appropriate network routing instructions prior to completion of a call. For NXXs equipped with LNP capability, the database will contain information identifying an end user's selected Local Service Provider (LSP), along with the appropriate LRN for the LSP's switch. The LRN will be used to direct the call to the correct

switched for completion to the end user. LNP Query Service allows N-1 carriers to access CTOC's database to obtain the LRN information needed for call completion. The four rate elements associated with LNP Query Service are usage sensitive and will be assessed when a query is launched in NXXs which are LNP capable as described following:

Prearranged End Office LNP Query

When the Telephone Company's end office is the first point of switching for terminating a non-queried call and the telephone number is a ported number, the end office switch will suspend the call process and launch a query to the LNP database. Once the routing information is returned to the end office, call processing will be resumed and the call will be routed to the correct switch for completion. The prearranged end office LNP query charge applies to wireless and wireline N-1 telecommunications carriers who have prearranged with TUECA to make LNP queries from TUECA end offices on their behalf.

Prearranged Tandem LNP Query

When the Telephone Company's tandem is the first point of switching for terminating a non-queried call, the tandem switch will suspend the call process and launch a query to the LNP database. Once the routing information is returned to the tandem switch, call processing will be resumed and the call will be routed to the correct switch for completion. The prearranged tandem LNP query charge applies to wireless and wireline N-1 telecommunications carriers who have prearranged with TUECA to make LNP queries from TUECA tandems on their behalf.

Default End Office LNP Query

When the Telephone Company's end office is the first point of switching for terminating a non-queried call and the telephone number is a ported number, the end office switch will suspend the call process and launch a query to the LNP database. Once the routing information is returned to the end office, call processing will be resumed and the call will be routed to the correct switch for completion. The default end office LNP query charge applies to wireless and wireline N-1 telecommunications carriers who have not prearranged with TUECA to make LNP queries from TUECA end offices on their behalf.

Default Tandem LNP Query

When the Telephone Company's tandem is the first point of switching for terminating a non-queried call, the tandem switch will suspend the call process and launch a query to the LNP database. Once the routing information is returned to the tandem switch, call processing will be resumed and the call will be routed to the correct switch for completion. The default tandem LNP query charge applies to wireless and wireline N-1 telecommunications carriers who have not prearranged with TUECA to make LNP queries from TUECA tandems on their behalf.

1.2 Cost and Rate Development

Number portability fundamentally changed the organization of the telephone network and the manner in which calls are handled. These changes required the installation of new network systems, as well as the enhancement of existing network systems, to support number portability and LNP Query Service. However, the cost and rate development process used herein identified only the ongoing direct and shared costs incurred by TUECA in the provision of LNP Query Service. The proposed query rates are based on total, unseparated costs consistent with the

decision of the *Third Report and Order*¹ giving the Commission sole and exclusive jurisdiction over long-term number portability cost recovery. The general approach used by TUECA in developing the costs associated with LNP Query Service identified the direct and shared costs related to number portability and developed a per query cost based on total LNP query demand.

Total Query Demand Quantification

The total LNP query demand used in determining the per query cost for LNP Query Service is the actual 2009 LNP demand quantities utilizing TUECA's existing LNP facility investment.

Since certain expenses (e.g., shared SS7 labor costs and expenses associated with transport links between end offices and TUECA's LNP database) are related to all types of queries (including LNP), the total 2009 demand quantities for all types of queries was also calculated. This was done in order to calculate an allocation factor, based on the proportion of LNP queries to total SS7 queries, which was used to attribute a reasonable share of these shared expenses to the LNP activity. See Page 4 of Exhibit 1-1 containing the cost study for the monthly and annual detail of LNP queries and queries for all SS7 services.

Investment and Expense Calculation

Only the costs which reflect TUECA's portion of shared industry costs (i.e., NeuStar charges) and costs which represent TUECA's specific number portability costs were included in the investment and expense calculations. The investment amounts included in the cost study are those associated with equipment used exclusively for the provisioning of local number portability service. This equipment includes items such as LNP Service Control Point database pairs, Local

¹ Telephone Number Portability, CC Docket No. 95-116, Third Report and Order, FCC 98-82, released May 12, 1998 (*Third Report and Order*).

Support Management System interfaces, and the Service Order Administration system. Expenses included in the cost study are those associated with the LNP investment discussed above, NeuStar charges billed to TUECA, internal costs directly related to LNP provisioning, and shared costs associated with both LNP provisioning and other SS7 activities. See Page 3 of Exhibit 1-1 for the total investment and expense amounts used in the cost study.

The expenses shared among all SS7 activities consist of not only the cost of transport links between end offices, TUECA's LNP database, and other national LNP databases, but also internal company costs for labor and other expenses of data center management, database operations, and network operations/engineering for all SS7 services. The portion allocated to LNP was based on the ratio of total LNP queries to total SS7 queries as discussed above. See Page 2 of Exhibit 1-1 for the investment and expense amounts attributed to LNP service.

The investment amounts for equipment used exclusively for LNP provisioning was converted to an annual revenue requirement through the use of account-specific annual cost factors which calculate the direct cost components of depreciation, cost of money, income taxes, maintenance and ad valorem taxes. Depreciation was based on straight-line depreciation of the investment over a 10.6-year life. Other cost factors were based on weighted system-wide rates. Application of these factors to the investment produced the annual investment-related direct costs associated with the provision of LNP Query service. The investment-related cost plus the total expense attributed to LNP service was then divided by the total annual LNP queries to calculate the revenue requirement per query. The end office switching and transport cost per call identified the cost associated with the switching and transport required to deliver an end office-terminated call to the appropriate network switching element for completion to the called party. Since only 1.68% of queries are associated with end office terminated calls, only a commensurate portion of the switching and transport cost is added to the revenue requirement per query. Additionally, an allocation of common and uncollectible expense is included in the final LNP Query rate. Since there is no

discernible cost differential between prearranged and default queries, pricing for the two elements is identical.

Exhibit 2-1 displays TUECA's forecasted demand for LNP Query service.

2.0 Conclusion

The Telephone Utilities Exchange Carrier Association is submitting the accompanying tariff revisions in accordance with the Commission's Rules governing the provision of interstate access services. The rates and charges proposed in this filing are demonstrated to be fully cost-based and reasonable, and are supported, where required, by exhibits detailing cost and rate development.

"TUECA PROPRIETARY"

*Telephone Utilities Exchange Carrier Association
Local Number Portability
LNP Query Service
Revenue Requirement
(000) Omitted*

Exhibit 1-1

A Ln #	B Description	C Input	D Calc/Source	E Total
1				
2	Investment			
3				
4	Depreciation			
5	Maintenance			
6	Return			
7	Federal Inc. Tax Rate			
8	State & Loc Inc. Tax Rate			
9	Ad Valorem Tax			
10	Inv Rev. Req.			
11	Total Expense	-		
12	Total Revenue Requirement			
13				
14	LNP Queries			
15				
16	LNP Query Inv. Rev Req.			
17	LNP Query Exp. Rev Req.			
18	Rev Req Per Query			
19				
20	EO Switching and Transport Cost			
21				
22	Percent of Calls Mis-Directed to an End Office			
23				
24	Weighted EO Switching and Transport Cost			
25				
26	Blended EO and Tandem Default Query Cost			
27				
28	Common Expense			
29				
30	LNP Query Rev Req & Common Exp.			
31				
32	Uncollectible			
33				
34	Total Annual LNP Query Cost			
35				
36	LNP Query Rate	=Ln34		\$ 0.003726
37				
38				
39				
40				
41				
42				

Telephone Utilities Exchange Carrier Association
Local Number Portability
LNP Query Service
Investment and Expenses Allocated to LNP
(000) Omitted

Exhibit 1-1

A	B	C	D	E
Ln #	Description	Alloc. Method	Calc/Source	Total
1				
2	Investment			
3	National STP			
4	National STP Links			
5	Regional STPs			
6	Regional STP Links			
7	LNP SCP			
8	Total Investment			
9				
10				
11	Expenses			
12	National SS7 Expenses			
13	National STP Links			
14	Regional STPs			
15	Regional STP Links			
16	LNP Expenses			
17	Total Expense			
18				
19				

"TUECA PROPRIETARY"

Telephone Utilities Exchange Carrier Association
Local Number Portability
LNP Query Service
Total Investment and Expenses
(000) Omitted

Exhibit 1-1

A	B	C	D
Ln #	Description	Acct	Total
1			
2	Investment		
3	National STP		
4	National STP Links		
5	Regional STPs		
6	Regional STP Links		
7	LNP SCP		
8	Total Investment		
9			
10			
11	Expenses		
12	National SS7 Expenses		
13	National STP Links		
14	Regional STPs		
15	Regional STP Links		
16	LNP Expenses		
17	Total Expense		
18			
19			

*Telephone Utilities Exchange Carrier Association
Local Number Portability
Query Demand
2009
(000) Omitted*

Exhibit 1-1

A Ln #	B Description	C Month	D Total
1			
2	LNP Queries		
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15	Total LNP Queries		
16			
17			
18	SS7 Queries		
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31	Total SS7 Queries		
32			
33			
34	Ratio of LNP to SS7 Queries		
35			
36	Direct LNP Query		
37			

Forecasted Demand

Company: Telephone Utilities Exchange Company Association (TUECA) Tariff F.C.C. No. 2

Rate Element: Local Number Portability (LNP) Query Service

	<u>Year 1 Demand</u>	<u>Year 2 Demand</u>
All Companies	27,981	20,148