projected exhaust dates within the next six years (including twice in the 310 NPA).

II.

SPLNP IMPLEMENTATION IS A REALITY

The Federal Telecommunications Act of 1996 clearly requires the implementation of permanent SPLNP. Two Regional Bell Operating Companies (RBOCs) serving other states have committed to implementing SPLNP by third quarter 1997. Also, due in large part to this Commission's directives, the telecommunications industry in California has already presented to the Commission its Task Force Report setting forth two alternative recommendations to fully implement statewide SPLNP by the second quarter of 1998. Number portability is no longer merely an abstract idea, but has blossomed into a commitment on the part of local exchange carriers (LECs) across the country to provide SPLNP. With SPLNP so imminent, it is no longer necessary or appropriate to use the number portability issue as a bargaining chip in area code relief planning.

Permanent SPLNP will be in place in California prior to the projected NXX code exhaust in the following NPAs: 818, 916, 714, 213, 209, 408, 510, 805, 909 and the second 310 exhaust. For the vast majority of codes needing relief then, the lack of permanent SPLNP is not an issue. Even for NPAs projected to exhaust prior to implementation of permanent SPLNP, an overlay could be implemented if the CLCs cooperate with the LECs to enable all participants to receive code assignments on an

Exhibit 7

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
-oOo-

Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service.	)	R.95-04-043
Order Instituting Investigation on the Commission's Own Motion into Competition for Local Exchange Service.	)	I.95-04-044

NOTICE OF EX PARTE COMMUNICATION

Pursuant to Rule 1.4(a) of the Commission's Rules of Practice and Procedure, GTE California Incorporated (U 1002 C) (GTE) hereby gives notice of the following ex parte communication.

On Thursday, May 2, 1996 at approximately 11:00 a.m., at GTE's offices located at 711 Van Ness Avenue in San Francisco, Eugene Eng, Regional Manager - Regulatory Compliance and Industry Affairs for GTEC and Joe Cocke, Staff Administrator, Industry Affairs for GTEC, met with Richard Smith and Scott Johnson, Advisors to President Conlon. Also in attendance was Paula Jordan, Project Manager, of AirTouch Communications. The meeting lasted approximately 50 minuts.

The purpose of the meeting was to discuss the alternatives available for the relief of Numbering Plan Areas. Mr. Cocke indicated that the Commission should not rule out the

Anti-Competitive Concerns Of An Overlay Have Been Addressed

- Service provider number portability scheduled to be available prior to the required implementation of NPA relief in the 415, 916, 714 and 213 areas

- "1+ 10" digit dialing on a statewide uniform basis will be determined in Phase III of local competition docket

- "1+ 10" digit dialing capability is available today on a permissive basis so implementation will not be difficult

- The use of an overlay does not affect carriers reselling GTE's service

Exhibit 8

CALIFORNIA
NPA EXHAUST
1996 FINAL VIEW

				Year of Exhaust						
NPA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
209				4Q						
213				1Q						
310		2Q			4Q					
408				1Q						
415		4Q								
510			3Q							
562										
619		2Q						2Q		
626										
707										1Q
714			4Q							
760										
805						2Q				
818			2Q							
909									2Q	
916			2Q							

BASIC ASSUMPTIONS:

1. Inital demand for PCS begins in 1996 and continues with moderate growth starting in 1997.
2. Local competion start date 1/1/96
   - Moderate request for codes 4Q95 for 1996 activation.
   - 1996 and 1997 substantial demand for CLCs increases including codes and moderate growth.
   - Potential new entrant forecast data is minimal.
3. Demand for LEC end office codes gradually decreases starting in 1997.

Source: Bruce Bennett
California Code Administrator
510-823-2880

5/21/96

California Telephone Association

NETWORK ISSUES

May 21 & 22, 1996

Embassy Suites Walnut Creek

LOCAL NUMBER PORTABILITY

Frank Jimenez
Universal Regulatory Manager
Pacific Bell
2600 Camino Ramon, Room 3S500
San Ramon, CA 94583

Phone: (510) 823-2971 ~~ Fax: (510) 867-1224

Exhibit 9

CONCLUSIONS

PACIFIC BELL
A Pacific Telesis Company

- Number portability requires a fundamental change to the routing architecture of the entire NANP
- Pacific Bell is prepared to work as quickly as reasonable with the industry to develop and implement a trial of LNP
- Significant issues must be resolved by California competitors, national industry participants and standards bodies, as well as regulators
- It is anticipated that it will take at least four years to develop and deploy service provider portability on an ubiquitous basis
- Lack of service provider number portability is not a "barrier" to competition
- CLECs appear to be able to capture a significant share of the market without number portability, dependent upon Discount, Brand and Bundling
- Number portability only adds about one tenth more customers in any given situation
- New entrants appear to be able to overcome a lack of number portability by simply continuing their current discounting practices

Exhibit 10

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service.	)	R.95-04-043
Order Instituting Investigation on the Commission's Own Motion into Competition for Local Exchange Service.	)	I.95-04-044

COMMENTS OF THE CALIFORNIA TELECOMMUNICATIONS COALITION PURSUANT TO THE ADMINISTRATIVE LAW JUDGE'S MAY 3, 1996 RULING ESTABLISHING PHASE III SCHEDULE

The California Telecommunications Commission hereby responds to the directory listing and database issues, service ordering issues and interim number portability using direct inward dialing functionality ("DID-INP") issues set forth in the presiding Administrative Law Judge's ("ALJ") May 3, 1996, "Ruling Establishing Phase III Schedule" which were also discussed at the workshops concerning the same.[1]

The May 3, 1996, ALJ Ruling covers several issues of importance to the Coalition and potential Competitive Local Carriers ("CLCs"): (1) the adequacy of incumbent local exchange carriers' ("LECs") service ordering systems and the appropriate processes for early warning of

[1] The members of the California Telecommunications Coalition joining in this filing are: AT&T Communications of California; California Cable Television Association; ICG Access Services, Inc.; MCI Telecommunications Corp.; Sprint Communications Company L.P.; Teleport Communications Group Inc.; and Time Warner AxS of California, L.P. The views expressed represent a consensus of the Coalition's members and do not necessarily reflect the views of each Coalition member.

may increase so that the number of information pages in the directory becomes cumbersome. Thus, the Coalition believes that a two-page limit on such information is both feasible and reasonable.

In providing this equal access, the CLCs should also be treated in a nondiscriminatory fashion *vis-a-vis* the LECs for any charges in this regard. Thus, if Pacific pays itself or its affiliate, Pacific Bell Directory, for inclusion of this information, CLCs should also pay for such inclusion. However, if Pacific does not pay itself or Pacific Bell Directory for this service, CLCs should be treated no differently. Sections 453 and 532 of the PU Code are clear with regard to the principles of unreasonable discrimination. Clearly, the LECs are not entitled to favor themselves at the expense of similarly situated parties – in this case, CLCs. Moreover, the Commission should not accept any argument from the LECs that somehow they are different merely because they or their affiliates publish the directory. Sections 453 and 532 of the PUC Code are clear, Pacific is not entitled to treat itself preferentially *vis-a-vis* CLCs.

III. DID INP ISSUES

At a workshop held at the Commission's offices on May 15, 1996, interested parties met to attempt to discuss the technical issues associated with CLC use of LEC DID functionality to obtain interim number portability. The discussion was productive to a limited extent, as we show below in our discussion of the questions that came from the workshop.[18] However, the

[18]The members of the Coalition strongly recommend that the ALJ read the entire transcript of the DID workshop, held on May 15, 1996. Even though that transcript is incomplete, enough of the parties' colloquy was recorded to establish the context in which the questions addressed

technical facts as possible. To the degree that interested parties cannot agree on technical factual issues, the only remaining course of action would be to schedule hearings on the disputed technical factual issues. Before doing so, however, the Coalition strongly supports a final attempt to resolve some or all technical factual issues in an additional workshop.

A. Question 1: What Are the Tariff Definition and Engineering Differences Between PBX Trunks and DID Trunks? Are They One-Way or Two-Way?

The members of the Coalition possess no particular expertise in deciphering the tariffs of Pacific and GTEC as they define and offer retail PBX trunks and retail DID trunks. We leave it to Pacific and GTEC to parse their own tariffs and clarify this issue, if they can. We note that Pacific's own technical engineer, Mr. Stan Habel, found the tariff terminology confusing from a technical standpoint:

> Q. Okay. Can you send DID information -- well, first of all, are PBX trunks either from a measurement standpoint or tariff standpoint something different than DID trunks?
>
> A. Absolutely. It depends on what market the person you talk to is in. PBX trunks are usually lines, but a number of times they're also referred to as DID trunks. As an engineer, I have one problem. If it's a trunk, it's called a trunk; if it's a line, it's called a line. I can't overflow a trunk to a line, et cetera. You'll hear this terminology a lot. They may be talking about lines or DID trunks, and I always have a problem trying to decipher or find out from them which ones they're really talking about.

Workshop Tr. at 14-15.

Indeed, the question of the tariff definitions of these retail service components is only marginally relevant to the issue of how DID functionality could be used to provision DID-INP. The point of raising this issue in the DID workshop was to establish whether or not there are

actually any *technical* differences between PBX trunks and DID trunks, irrespective of any differences that might appear in Pacific's or GTEC's tariffs, as well as what *technical* capabilities such trunks might possess.

On the issue of technical or engineering differences and capabilities, we submit that, as Mr. Habel put it so aptly, a trunk is a trunk. That is, a trunk is a physical facility (normally copper or fiber) between two switches. In the case of a PBX or DID trunk, one of those switches is the LEC's end office switch, and the other is the customer's PBX. Any trunk can be configured differently on a variety of parameters, depending on customer requirements. For example, the trunk can be configured as a one-way trunk, so that only traffic inbound to the customer's premises is carried on that trunk. Under this configuration, a separate trunk or trunks will be needed to carry traffic outbound from the customer's premises. Alternatively, the trunk or trunks can be configured as two-way, allowing the carriage of traffic in both directions on the same facility.

Similarly, trunks require signalling. That signalling can be either in-band multifrequency ("MF") signalling, or out-of-band SS7 signalling, depending on the customer's requirements. While DID signalling to PBXes has traditionally been MF, it can just as easily be SS7 if the PBX is SS7-capable; as Mr. Habel stated, "there's no reason why it can't be." Workshop Tr. at 3.

The important conclusion to draw from the technical discussion in the workshop, insofar as Pacific allowed that discussion to occur at all, is that there are no *technical* reasons why DID trunks must be one-way rather than two-way, or must use MF rather than SS7 signalling. The fact that Pacific's and/or GTEC's *tariffs for retail DID service* may contain such restrictions is

irrelevant. The purpose of the workshop and the ongoing consideration of this issue is *not* to determine whether a retail service of the LECs can be used for INP purposes. Rather, just as was the case for RCF INP, the effort here is to identify how certain of the network functionalities currently used to provision retail DID service can also be used to provision DID INP.[20]

B. Question 2: What is the Functionality of Route Indexing Software? What Are Its Capabilities and Limitations?

Route indexing software is one of two network components used to provision retail DID service (the other component is a DID trunk). Route indexing software resides in the LECs' end office switches. Its operation is straightforward. In its use as part of retail DID service, route indexing software is used to direct incoming calls made to a particular DID number, to the proper outgoing trunk group, in order to send the incoming calls to the proper customer location. For this use, the route indexing software, together with instructions which have been placed in the switch memory for each DID customer, often sends only the last four digits of the dialed telephone number to the customer's PBX. That is, even though more digits could be sent, all but the last four are stripped off, because the PBX doesn't need more than four digits in order to be able to route the call to the correct customer station equipment on that PBX. Workshop Tr. at 2-9.

[20]There should be no dispute on the points raised in this discussion. However, to the extent that Pacific or GTEC make assertions contrary to those above, further action will be needed to resolve these issues. As we requested at the DID workshop, and as we reiterate herein, the most efficient approach will be an additional DID workshop. Should such further workshop not be held, we formally request that the DID INP issue be set for hearings as soon as possible.

However, just as is the case with trunks, route indexing software is not limited to one particular technical capability. Route indexing software is used for many routing purposes beyond the provisioning of DID. It can be programmed to route almost any incoming call to almost any line appearance or outgoing trunk group type. Existing route indexing software can also be configured to pass more than four digits to an outgoing trunk group. Workshop Tr. at 13. Indeed, the software can be configured to pass seven, ten or more digits.

Thus, as with trunks, the real issue is whether the route indexing software in LEC switches can be used to provision DID INP efficiently for both LECs and CLCs. Unfortunately, the DID workshop never reached and discussed this crucial issue. Pacific refused to discuss this issue at all at the workshop, claiming they were not prepared on this issue. Indeed, Pacific refused even to allow Mr. Habel, the only technical engineer from Pacific present at the workshop, to engage in a discussion of the possible technical capabilities of the network functionalities used to provide DID. Instead, they limited his presentation to a discussion of the technical provisioning of *current retail DID service.*

As a result, through Pacific's refusal to cooperate, the workshop was unable to pursue a discussion on this key point. Despite this refusal, the Coalition states that route indexing software can clearly be used to render DID INP without the use of a separate trunk for each DID number, and can be configured to pass the number of digits required for proper routing and termination of all ported calls to the correct CLC customer, using efficient and modern SS7 signalling.

These comments are not the appropriate or efficient vehicle to present all the details of how the route indexing and other network functionalities can be used in this fashion. The proper

initial forum for that discussion is a technical workshop, where interested parties can engage in a colloquy on these issues, which should minimize the differences between the parties on technical issues. Members of the Coalition will participate in such a discussion at the second DID workshop to be scheduled soon.

C. Question 3: Where Are PBX End-Users Served Via SS7 Connectivity?

This question is of limited relevance to the issue of how DID functionality can be used to provision DID INP. To the degree that PBX users are currently served using SS7 signalling, that fact simply proves that, even at the retail DID level, there is no basis on which to assert that DID trunks cannot employ SS7 signalling. To that end, we are currently attempting to determine whether and how, on a nationwide basis, SS7 signalling is used by retail DID customers. That inquiry is still pending, and we will report any relevant information as it is received.

However, the truly relevant point on SS7 signalling is that DID trunks *can* use it, instead of MF signalling. Workshop Tr. at 3. Moreover, CLCs using DID INP *would want to* use SS7 signalling. Just is the case with interconnection facilities, many if not most CLCs intend to use SS7, because it is the most modern and efficient form of signalling between carriers.

D. Question 4: What Is Required For a PBX and a CLC Switch To Be Able To Use SS7 Signalling?

We submit that any requirements that might exist with respect to PBX use of SS7 signalling are not relevant to the issue of CLCs' use of DID INP. With respect to CLC switches' SS7 capability the answer is simple and straightforward. CLCs are deploying new,

modern switches as they build their local networks. Just as is the case with the LECs' newer local switches, the CLCs' switches are currently equipped for SS7 signalling.

E. Question 5: Define a Technically Feasible Solution For DID Routing To Take Place Over Local Interconnection Trunks.

As was the case with route indexing, the DID workshop failed to address this issue, again because Pacific refused to do so. As we discuss above, route indexing software can be programmed to route incoming traffic to any outgoing trunk group, including the local interconnection trunks established between an LEC and a CLC. The technical issues, including any possible need to measure such traffic, are more properly addressed in the next DID workshop, rather than in these comments.

F. Question 6: How Would In-Bound Traffic Be Measured Over Traditional PBX Trunks?

To the best of the Coalition's knowledge, in-bound traffic over PBX trunks is not currently measured at the customer premises where the PBX is located. Since retail PBX trunks are not at issue here, the question is not relevant to CLC use of DID INP.

G. Question 7: How Would In-Bound Traffic Be Measured Over Combined Local Interconnection Trunks?
Question 8: Why Is It Necessary To Measure Traffic?

These two questions should properly be answered in reverse order. With respect to the second question, it is not necessary to measure *terminating* traffic carried on local interconnection trunks, because the Commission has ordered mutual traffic exchange, or "bill

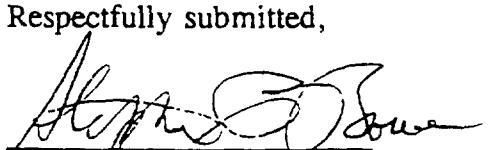
and keep," for such traffic between an LEC and a CLC. No carrier currently measures terminating traffic, and any carrier would incur significant expense to be able to do so. Moreover, there is nothing unique about DID INP that would require a revisitation of this decision.

Thus, it would only be necessary to measure DID INP traffic over local interconnection trunks if the Commission were to revisit and reverse its decision ordering bill and keep. In such a situation, the DID INP traffic would be measured by whatever means were developed and deployed to measure other traffic flowing over local interconnection facilities.

IV. CONCLUSION

For the reasons stated herein, the Commission should adopt the Coalition's position with respect to directory listings and databases, service ordering systems and reporting, and DID-INP.

Respectfully submitted,



Stephen P. Bowen
Karen M. Potkul
Blumenfeld & Cohen
101 California Street, Suite 4225
San Francisco, CA 94111
v. (415) 394-7500
f. (415) 394-7505

Counsel for MCI
Telecommunications Corp.

On Behalf of the California
Telecommunications Coalition

Dated: June 11, 1996

Exhibit 11

AT&T
Network Systems

1200 East Warrenville Road
Naperville, IL 60566-7045
708 979-1000

January 26, 1996

Ms. Pat vanMidde
State Regulatory Manager
Room 282
795 Folsom Street
San Francisco, CA 94107

Dear Ms. vanMidde:

This is in response to your letter dated January 16 regarding switch specific software availability dates.

Attached is a matrix showing software availability dates for each of our switch types installed in California. We apologize for submitting this information beyond your requested due date and sincerely hope it hasn't caused an inconvenience.

Sincerely,

Al Loots
Network Infrastructure Manager

Ron Hoffman
Number Portability Offer Manager

Attachment

Attachment

Solution

CPC: 5ESS® Switch general availability is 1Q97. This is a revised availability date based on discussions concerning using LRN capabilities for a CPC application. This is dependent on technical assumptions and assumes no CPC specific development or modification for the 5ESS Switch beyond LRN.

LRN:	5ESS Switch Planned General Availability	- 1Q97
	1A ESS™ Switch Planned General Availability	- 2Q97*
	4ESS® Switch Planned General Availability	- 2Q97*
RTP:	5ESS Switch Planned General Availability	- 4Q97**
	4ESS Switch Planned General Availability	- 4Q97**
GTE (Number Change)		
	Possible General Availability	- 1H98

*Contingent on customer business arrangements

**Contingent on requirements being stable 2/15/96 and customer business arrangements

LRN vs. QOR
Competitive Impacts

PacBell Statements	Facts

• 9/12/95 Comments
  • The mechanism by which portability is provided should, as an objective, be transparent to the customer.
  • Whatever solution(s) is adopted cannot be too expensive, waste too many numbers, favor one segment of the industry over another, take too long to implement, degrade existing services, create unacceptable call handling delays or network problems.
  • To serve the public interest, number portability should be (1) consistent with customer expectations (2) fair to the incumbent and entrant service providers, (3) scaleable and interoperable from local to national networks, and (4) economically reasonable.
• 10/12//95 Reply Comments
  • The process of implementing any number portability solution cannot be allowed to degrade the quality of service provided to customers.
• 5/14/96 Ex Parte
  • Any "post dial delay" between QOR and LRN will be imperceptible. AT&T's own LRN solution treats intraswitch vs. interswitch customers differently and there is a differential in post dial delay.
  • QOR assumes that a dialed number has not ported.
	• QOR is not competitively neutral in that it differentiates and treats differently customers of new entrants from customers of incumbents.
	  • Calls to customers of new entrants must rely on the incumbent's network to first unsuccessfully attempt a call in which the incumbent assumes the customer did not change to a competing new entrant.
	  • There will be an additional post dial delay of more than a full second on intraLATA interswitch calls to customers of new entrants.
	• QOR will degrade quality on calls to customers of new entrants who have changed local providers from the incumbent to a new entrant.
	• LRN does not differentiate any local carrier's customers from another local carrier's customers.
	• Both LRN and QOR avoid queries on intraswitch calls.
	  • Intraswitch calls do not differentiate customers of new entrants from customers of incumbents.

Exhibit 12

LRN vs. QOR
Costs

PacBell Statements	Facts

• 3/29/96 Comments
  • Cost recovery under Pacific's alternative is more likely to be competitively equitable – and therefore more consistent with Section 251(e)(2) – because the total costs of number portability will be lower than under a universal, rigid LRN mandate, and no industry segment will be disproportionately burdened.
  • Because LRN requires an external data base query on every inter-switch call – even though such a query will be unlikely for the majority of calls – it would require tremendous expenditures by the incumbent carriers such as Pacific Bell. To handle the volume of queries that would be required by LRN, Pacific Bell alone would have to deploy 15 or more Service Control Point (SCP) pairs in California, augment its SS7 network, and make substantial changes to switch hardware and software, at a cost of approximately $1B over a three year period.
• 1/16/96 Ex Parte
  • Cost of LRN: $148M; Cost of RTP: $41M
• 5/14/96 Ex Parte
  • LRN is extremely expensive-Pacific's cost is expected to be $1 Billion over 3 years.
  • QOR is significantly more efficient than LRN. Graph shows real time consumption of LRN and QOR crossing at LNP penetration of 90%.
  • Provisioning QOR: Intermediate and Donor Switches-similar to provisioning needed for AT&T's LRN.
	• PacBell's Estimated Cost of RTP: $102M
	• PacBell's Estimated Cost of LRN Jumped from $148M to $1B
	• It would be interesting to see how 15 SCP pairs, associated A-links, and switch hardware and software for LRN cost $1B
	• QOR requires LRN software plus additional cost of QOR development plus some SCP deployment
	• Nortel Relative Cost Model for the incumbent LEC for non-IXC calls: Relative cost for originating trigger (i.e., LRN) crosses Look Ahead (i.e., QOR) at LNP penetration of 43%
	• Real Time Consumption of LRN and QOR crosses at LNP penetration of 12% for Lucent 5ESS
	• QOR requires all intermediate and donor switch to be upgraded to recognize new Routing Attempt Indicator; LRN requires no upgrades to non-LNP capable switches.
	• Additional QOR Costs: QOR switch development, intermediate and donor switch: real time use and upgrades, associated trunking
	• Additional LRN Costs: SCPs and associated links

LRN vs. QOR
Technical Feasibility

PacBell Statements	Facts

• 9/12/95 Comments
  • The "Release-to-Pivot" option is, in our opinion, the best match to the principles listed and we endorse it as the entrance architecture.
• 3/29/96 Comments
  • At this point neither LRN, Query on Release, RTP, or any other long-term trigger mechanism is technically feasible; all would require substantial software development and testing.
• 4/5/96 Reply Comments
  • In addition, there is no evidence from which the Commission can conclude that AT&T's LRN is technically feasible.
• 5/14/96 Ex Parte
  • QOR, like LRN, is a permanent portability solution that is technically feasible and can be scheduled for deployment in the same relative timeframe.
  • AT&T's LRN proposal-requirements/specifications are not yet complete.
	• The technology that LRN uses -- queries to SCPs -- is not new, is currently used in the network, and is, therefore, technically feasible.
	• Generic Requirements have been completed for LRN to the satisfaction of the switch vendors who are currently designing LRN software.
	• There are no completed Generic Requirements for QOR.
	• AT&T has placed LRN in the public domain; the intellectual property implications for QOR are still being investigated.

LRN vs. QOR

Full Industry Participation in Development

PacBell Statements	Facts

• 9/12/95 Comments
  • All service providers (e.g., CMRS, IECs, CAPs, LECs, CLECs) participating in number portability should also participate in number portability development, deployment and associated administrative functions.
• 10/12/95 Reply Comments
  • The responsibility for discovering a long term solution for number portability rests with all industry players, not just incumbent LECs.
• 3/29/96 Comments
  • Indeed, because of concern with high cost and technical ramifications of AT&T's LRN, most of the RBOCs and large independent telephone companies in the U.S. and Canada recently sent a joint letter to four major manufacturers of telecommunications equipment, asking for price and implementation information concerning Query on Release.
• 5/14/96 Ex Parte
  • Query on Release (QoR) is the "next generation" enhancement to mitigate the frailties and inefficiencies of LRN's hurried design flaws.
	• QOR was first proposed by PacBell to the industry in 1996.
	• The RBOCs, through Bellcore, are developing QOR requirements without participation from the rest of the industry.
	• LRN, first introduced in 1994, has been fully developed and evaluated by the industry in state workshops and has consistently been rated higher by the industry than any other number portability solution.

EXHIBIT 3

GTE Service Corporation
1850 M Street, N.W., Suite 1200
Washington, D.C. 20036
(202) 463-5200

October 21, 1996

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
Washington, DC 20554

Re: *Ex Parte* - CC Docket No. 95-116 - Local Number Portability

Dear Mr. Caton:

At the request of Susan McMaster of the Policy and Program Planning Division of the Common Carrier Bureau, I am providing an attachment to this letter which summarizes the savings in cost to GTE using CoR versus LRN for local number portability over a five year period.

Two copies of this notice are filed in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Sincerely,

F. G. Maxson
Director - Regulatory Affairs

C: Susan McMaster 1919 M St
ITS

Five Year estimate of LRN versus QoR (all $ in thousands)

	TOTAL
LRN	
CO Memory/Hardware	$376,643
STP-SCP A links	$6,300
SCP Pairs	$85,122
STP upgrades	$7,324
Software RTU Fee	$372,057
Total Cost	$833,947
Installation included[1]	
Support Equip Cost[2]	$0
LNP COST[3]	$833,947
QoR	
CO Memory/Hardware	$328,749
STP-SCP A links	$3,024
SCP Pairs	$11,803
STP upgrades	$1,742
Software RTU Fee	$349,282
Total Cost	$697,823
Installation included[1]	
Support Equip Cost[2]	$0
LNP COST[3]	$697,823
Total QoR savings	$136,324

This cost estimate was prepared to reflect the potential savings which could accrue if QoR were deployed for the provision of LNP for use within GTE's network.

At the request of FCC staff, this estimate was prepared in a format similar to that used by Pacific Bell in a submission to the FCC on the same subject. Although the format used closely parallels the Pacific Bell submission, subtle differences in the data and its underlying assumptions need clarification.

1. Estimate methodology. Pacific Bell's submission was based on a study of a "sample LATA" developed by Bellcore. Pacific Bell then applied data and factors representative of their network parameters. Finally, Pacific Bell scaled the Bellcore model results by a factor of 10 to approximate the "full Pacific Bell Network."

   GTE's estimates are based on the development of network plans to meet the requirements of LNP deployment for each area which GTE serves. Application of GTE cost factors and supplier prices for the network components then allows aggregation of costs as an estimate for deploying LNP in the "full GTE Network."

2. Deployment assumptions. Pacific Bell's full network encompasses all of California, with a high degree of urban and suburban areas in its service areas. GTE's full network encompasses service areas in 28 states with a different mix of urban/suburban/rural service areas. This estimate is based on achieving full deployment within five years as used in Pacific Bell's study.

3. System processor impacts. The AT&T (Lucent) 5ESS switching platform comprises most of Pacific Bell's network. GTE's network switching platform is predominately ABCS GTD-5. These switches vary significantly in their architecture, memory management and processor types. Therefore, GTE's submission uses 15% and 25% for aggregate processor growth factors, which are approximately equivalent to the 5% and 10% parameters used in the Pacific Bell study.

4. Portability penetration. This estimate uses GTE's forecast for penetration rates for the five years period. Because GTE's mix of urban, suburban and rural service areas differs from that of Pacific Bell, these rates are somewhat lower than the values assumed by Pacific Bell in their proxy study.

5. Economic equivalence for LRN and QoR. Evaluation of this factor requires iteration of network designs with increasing rates of LNP penetration. As GTE's estimates were developed using a real network rather than a model, computation of this factor is time consuming. Therefore, this factor has not been evaluated with high precision. However, it appears to be in the range of 70% to 80% for GTE's network.

6. Common costs for LNP deployment. This estimate represents a comparison of the cost differences for deployment of LRN versus QoR. Because of this, substantial common costs have been excluded from this estimate since they are not affected by the LNP technology

[1] Installation costs are included in the total acquisition for each category of equipment.

[2] Support equipment costs are included in total acquisition costs for each category of equipment.

[3] Cost totals exclude capital and expense expenditures common to deployment of QoR and LRN.

GTE Telephone Operations

Five Year estimate of LRN versus QoR (all $ in thousands)

	TOTAL
LRN	
CO Memory/Hardware	$376,843
STP-SCP A links	$6,300
SCP Pairs	$85,122
STP upgrades	$7,524
Software RTU Fee	$372,857
Total Cost	$833,947
Installation Included[1]	
Support Equip Cost[2]	$0
LNP COST[3]	$833,947
QoR	
CO Memory/Hardware	$328,749
STP-SCP A links	$3,024
SCP Pairs	$11,893
STP upgrades	$1,742
Software RTU Fee	$349,282
Total Cost	$697,623
Installation Included[1]	
Support Equip Cost[2]	$0
LNP COST[3]	$697,623
Total QoR savings	$136,324

This cost estimate was prepared to reflect the potential savings which could accrue if QoR were deployed for the provision of LNP for use within GTE's network.

At the request of FCC staff, this estimate was prepared in a format similar to that used by Pacific Bell in a submission to the FCC on the same subject. Although the format used closely parallels the Pacific Bell submission, subtle differences in the data and its underlying assumptions need clarification.

1. Estimate methodology. Pacific Bell's submission was based on a study of a "sample LATA" developed by Bellcore. Pacific Bell then applied data and factors representative of their network parameters. Finally, Pacific Bell scaled the Bellcore model results by a factor of 10 to approximate the "full Pacific Bell Network."

   GTE's estimates are based on the development of network plans to meet the requirements of LNP deployment for each area which GTE serves. Application of GTE cost factors and supplier prices for the network components then allows aggregation of costs as an estimate for deploying LNP in the "full GTE Network."

2. Deployment assumptions. Pacific Bell's full network encompasses all of California, with a high degree of urban and suburban areas in its service areas. GTE's full network encompasses service areas in 28 states with a different mix of urban/suburban/rural service areas. This estimate is based on achieving full deployment within five years as used in Pacific Bell's study.

3. System processor impacts. The AT&T (Lucent) 5ESS switching platform comprises most of Pacific Bell's network. GTE's network switching platform is predominately ABCS GTD-5. These switches vary significantly in their architecture, memory management and processor types. Therefore, GTE's submission uses 10% and 25% for aggregate processor growth factors, which are approximately equivalent to the 3% and 10% parameters used in the Pacific Bell study.

4. Portability penetration. This estimate uses GTE's forecast for penetration rates for the five year period. Because GTE's mix of urban, suburban and rural service areas differ from that of Pacific Bell, these rates are somewhat lower than the values assumed by Pacific Bell in their proxy study.

5. Economic equivalence for LRN and QoR. Evaluation of this factor requires iteration of network designs with increasing rates of LNP penetration. As GTE's estimates were developed using a real network rather than a model, computation of this factor is time consuming. Therefore, this factor has not been evaluated with high precision. However, it appears to be in the range of 70% to 80% for GTE's network.

6. Common costs for LNP deployment. This estimate represents a comparison of the cost differences for deployment of LRN versus QoR. Because of this, substantial common costs have been excluded from this estimate since they are not affected by the LNP technology

[1] Installation costs are included in the total acquisition for each category of equipment

[2] Support equipment costs are included in total acquisition costs for each category of equipment.

[3] Cost totals exclude capital and expense expenditures common to deployment of QoR and LRN.