

ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of the Notice of)
Proposed Rule Making)
Regarding Telephone Number)
Portability)
_____)

CC Docket No. 95-116

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REPLY COMMENTS OF
THE CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS
ON THE FEDERAL COMMUNICATIONS COMMISSION'S
REQUEST FOR FURTHER COMMENTS
ON TELEPHONE NUMBER PORTABILITY

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REQUEST FOR FURTHER COMMENTS
ON TELEPHONE NUMBER PORTABILITY**

I. INTRODUCTION.

The California Department of Consumer Affairs (DCA) hereby respectfully submits the following reply comments in response to the Federal Communications Commission's (FCC) request for further comments in its Notice of Proposed Rule Making (NPRM) regarding telephone number portability.

In addition to the comments provided below, the DCA attaches the Comments of the California Department of Consumer Affairs on the California Local Number Portability Task Force Report Dated February 29, 1996, which the DCA filed with the California Public Utilities Commission (CPUC) on March 15, 1996. Those comments set forth the DCA's recommendations regarding the steps the CPUC should take to initiate long-term local number portability. Those recommendations are equally valid to the design and implementation of national number portability.

II. THE TELECOMMUNICATIONS ACT OF 1996 REQUIRES THAT THE FCC ADOPT A FLEXIBLE NUMBER PORTABILITY SOLUTION WHICH ENCOURAGES INNOVATION AND COMPETITION.

The Telecommunications Act of 1996 ("the Act") requires that all local exchange carriers "provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission." (The Act, Section 251(b)(2).)

The purpose of the Act is "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." (Preamble to the Act.) The Act requires the FCC to complete a proceeding within 15 months of enactment of the Act "for the purpose of identifying and eliminating market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services." (The Act, Section 257(a).) In carrying out that mandate, the Act requires the FCC to "seek to promote the policies and purposes of this Act favoring . . . vigorous economic competition, technological advancement, and promotion of the public interest," (The Act, Section 257(b).)

Those purposes and policies should be the FCC's guiding principles as it selects a national number portability solution. They clearly mandate that the FCC implement every aspect of the Act, including number portability, in a manner which promotes and encourages competition and innovation in every aspect of the telecommunications industry, and which reduces regulation of that industry. Thus, the number portability solution adopted by the FCC should be flexible, allow for future innovation, and promote competition. The Act

recognizes that consumers will be the ultimate beneficiaries of those policies through lower prices and improved services that competition and innovation should engender.

III. THE FCC SHOULD ADOPT ROUTING PROTOCOLS AND OPERATIONS STANDARDS, AND ALLOW THE USE OF DIFFERENT TRIGGERING MECHANISMS.

Based on the DCA's participation in the California Local Number Portability Task Force ("Task Force") and its understanding of the work in progress by the American National Standards Institute's T1S1.3 subcommittee, the DCA believes that there is general industry consensus that in order to have an operable statewide or nationwide local number portability solution, all telecommunications providers must use a common routing algorithm. There also seems to be general industry consensus¹ that the best available and most appropriate routing algorithm for that purpose is the location routing number algorithm ("lrn").² In addition to using that routing algorithm and protocols, some common operations standards also may be necessary. With those parameters in place, the industry seems to agree that it is technically feasible to allow telecommunications providers to use different triggering mechanisms to deploy number portability -- it is not technically necessary that every telecommunications provider use the same triggering mechanism. Thus, the question

¹ See the California Local Number Portability Task Force Report dated February 29, 1996, to the California Public Utilities Commission, at Section 5.5.

² The term "location routing number" ("lrn") refers to a specific routing mechanism. It does not refer to AT&T's proposed LNP solution -- "Location Routing Number" ("LRN"). Although lrn is the routing mechanism used by AT&T's LNP proposal, as well as other LNP proposals, it is distinct and separable from LRN, and should not be confused with, or interpreted to mean, LRN.

is whether it is in the best interest of consumers to mandate the use of one common triggering mechanism. The DCA believes that it is not.

It appears to the DCA that the development of viable number portability solutions is still in its early stages. Within the approximately 18 months that telecommunications providers and their suppliers have been working on this issue, significant improvements in the various proposed solutions have been made. For example, some number portability solutions which appeared most promising eight months ago when the first technical presentations were made to the Task Force have since been shown to contain qualities unacceptable in a long-term local number portability solution. As a further example, at a recent Task Force meeting, one software manufacturer reported that it is developing a new, alternative triggering mechanism -- Query on Release. Moreover, the FCC's investigation into this issue pursuant to the Act should be a strong incentive for innovators involved in creating number portability solutions to continue to improve upon the solutions now available. There is every reason to believe that this evolutionary and innovative process will continue.

For all of these reasons, the DCA believes that the ideal number portability solution is one which: (1) sets the minimum routing protocols and operations standards which must be applied in order to maintain a national number portability solution; (2) allows and encourages innovation, and major improvements and changes to the solution; and (3) gives providers the greatest possible flexibility to implement triggering mechanisms which are most economically feasible for them. As innovation and improvements refine current number portability triggering mechanisms and create new ones, this approach will allow a provider to adopt a

different and better triggering mechanism at some later time, so long as that new triggering mechanism operates within the standards established by the FCC.

The T1S1.3 subcommittee, which is in the process of developing national routing and signaling standards and protocols for local number portability. The DCA recommends that the FCC officially recognize and sanction the T1S1.3 subcommittee, and direct it to report to the FCC (or the Federal-State Joint Board) by a date certain regarding the protocols and operations standards on which the subcommittee has agreed are necessary in order to implement a long-term number portability solution.³

Assuming that the T1S1.3 subcommittee is able to fully comply with the FCC's directive and agree upon routing protocols and operations standards which each telecommunications provider will need to apply in order to make national number portability operational, the DCA anticipates that those routing protocols and operations standards would be appropriate for adoption by the FCC.

If those criteria are met, the DCA recommends that the FCC allow each telecommunications provider the flexibility to select and use the triggering mechanism which is most efficient and cost-effective in its network, so long as its use is within acceptable standards of competitively neutrality and comports with the routing protocols and operations standards adopted by the FCC.

³ It is the DCA's experience that absent a reporting deadline, such committees can become mired down indefinitely in disputes precipitated by the business objectives of the individual committee members, rather than reaching consensus through a focus on meeting the needs of the telecommunications industry as a whole, the needs of the information services industry, and, most importantly, the needs of consumers.

IV. CONCLUSION.

As the FCC reviews the comments of interested parties in this proceeding, and as it evaluates and selects a number portability solution for the nation, the DCA urges the FCC to be aware of the natural biases inherent in some of those comments. One cannot ignore the fact that almost all of the number portability proposals have been developed by large telecommunications providers. Each developer of a number portability proposal has a significant business stake in seeing its own proposal adopted, including the significant monetary and market implications inherent in the selection of one proponent's solution over the others. Moreover, each of the number portability proposal developers has strong business interests in both minimizing its own costs for local number portability and maximizing that cost for competing providers.⁴ It appears that the developers of the number portability proposals sometimes find it difficult to put the interests of the nation and its consumers ahead of their own business interests.

In contrast, in evaluating the proposals for a number portability solution, the FCC should focus primarily on the impact of each proposal on consumers, including the relative costs of each proposal -- an important factor in selecting a long-term number portability solution because it is a cost which consumers ultimately will bear.

⁴ It is the DCA's understanding that the cost to implement any of the LNP proposals may vary significantly among the different telecommunications providers. For example, the number and types of switches, and other software and hardware that particular providers have in place, are major factors which contribute heavily to the costs they will incur to implement a particular LNP solution. In short, the most economic solution for one provider may be a very uneconomic solution for another provider.

The kind of flexibility which the DCA proposes will allow each telecommunications provider to select and implement the triggering mechanism which is most efficient and cost-effective in its network, thus helping to ensure that the nation's number portability solution imposes the least possible cost on telecommunications ratepayers and promotes competition. Flexibility in the number portability approach encourages future innovation, and enables telecommunications providers to take advantage of those future innovations. This approach fosters competition. Additionally, it is competitively neutral because it avoids favoring one group, one business, or one technology over others. Most importantly, it should allow consumers to benefit from the most efficient, cost-effective local number portability technologies.

For all of those reasons, the DCA believes that requiring that all providers use the same triggering mechanism probably does not comport with the long-term best interests of the nation. Instead, the DCA recommends that the FCC adopt a forward-looking, competitively neutral long-term local number portability mechanism by adopting common

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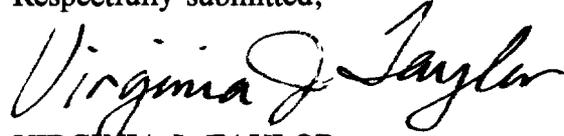
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routing protocols and operations standards, and allowing telecommunications providers the freedom to select and use the triggering mechanism of their choosing.

DATED: April 4, 1996

Respectfully submitted,



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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking)
on the Commissions' Own Motion)
into Competition for Local Exchange)
Service)
_____)

R.95-04-043

Order Instituting Investigation)
on the Commissions' Own Motion)
into Competition for Local Exchange)
Service)
_____)

I.95-04-044

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**COMMENTS OF
THE CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS
ON THE CALIFORNIA
LOCAL NUMBER PORTABILITY TASK FORCE REPORT
DATED FEBRUARY 29, 1996**

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March 14, 1996

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking)
on the Commissions' Own Motion)
into Competition for Local Exchange)
Service)
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**COMMENTS OF
THE CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS
ON THE CALIFORNIA
LOCAL NUMBER PORTABILITY TASK FORCE REPORT
DATED FEBRUARY 29, 1996**

The California Department of Consumer Affairs ("DCA") hereby respectfully submits the following comments on the Local Number Portability Task Force Report ("Report") submitted to the California Public Utilities Commission ("Commission"), on February 29, 1996.

I. INTRODUCTION

The DCA actively participated in the evaluation by the California Local Number Portability Task Force ("Task Force") of proposed long-term local number portability ("LNP") solutions. The DCA believes that all of the participants of the Task Force are to be commended for their efforts. The DCA also commends the Commission for providing excellent and timely direction to the Task Force through the Commission's staff representative.

The DCA believes it is important to all Californians that the LNP solution adopted by the Commission be flexible, allow for future innovation, and promote competition. The kind of flexibility which the DCA proposes will help ensure that the LNP solution California implements will be operable in conjunction with the LNP solutions which other states and the Federal Communications Commission ("FCC") select. Such flexibility also will allow each telecommunications provider to select and implement the triggering mechanism which is most efficient and cost-effective in its network, thus helping to ensure that California's LNP solution imposes the least possible cost on California's ratepayers, and promotes competition. Flexibility in the LNP approach also will retain the option to benefit from future innovations. For those reasons, the DCA believes that the Task

Force's "Recommendation Alternative Number 1" ("Recommendation 1") probably does not comport with the long-term best interests of California.

As will be explained in Section II below, the DCA generally supports "Recommendation Alternative Number 2" ("the common routing solution"),¹ with the caveat reflected in the Report that the Commission should assure that LNP is not unduly delayed by the unavailability of a particular triggering mechanism. The DCA respectfully recommends that rather than adopt a LNP solution which allows only one specific triggering mechanism, the Commission should adopt a routing mechanism, specify the routing information which must be passed between networks, establish the necessary operations standards, and should allow the service providers to individually select and deploy the most economically efficient triggering mechanism available so long as the Commission-adopted routing mechanism and operation standards are met.²

The Commission's decision must take account of the recently passed federal Telecommunications Act of 1996 ("the Act"), which requires that the FCC take action with respect to a national long-term local number portability solution within six months of the Act's passage.³ Following issuance of the Report, the DCA became aware of the existence and work of the American National Standards Institute's T1S1.3 subcommittee, which is in the process of developing national routing and signaling standards and protocols for local number portability. Although that subcommittee is not obligated to report to the FCC, the DCA believes it is likely that the standards developed by that subcommittee could be adopted by the FCC as national LNP standards. Therefore, the DCA currently believes that it may in the best long-term interests of California for the Commission to coordinate with the T1S1.3 subcommittee so that the routing and operations standards adopted by California comport with those which are likely to become the national standards.⁴ Such an approach should help assure that California will not implement a LNP solution which requires

¹ Contrary to footnote 23 at Page 47 of the Report, Recommendation 2 is a refinement of the DCA's "common routing" proposal. It specifically calls for a choice among triggering options, both now and in the future, and is not intended to be limited only to the Release To Pivot ("RTP")/location routing number ("Lrn") proposal.

² Although the DCA does not have staff with technical telecommunications expertise, as it understands this issue, the DCA suggests that the routing mechanism which the Commission ultimately adopts might be the routing mechanism -- location routing number -- and standards which the Task Force agreed are appropriate. (Report, Section 5.5, at p. 34.)

³ See the Telecommunications Act of 1996, section 251(b)(2) and (d).

⁴ The DCA understands that the T1S1.3 subcommittee's goal is to develop those standards and protocols by mid-1996, but that there is some possibility the goal may not be realized until later in 1996. The DCA is informed that the disputes precipitating the potential delay in adopting the standards and protocols are not technical in nature, but rather, are precipitated by the conflicting business interests of the telecommunications providers who are members of the subcommittee.

extensive alternation in order to be compatible with the national LNP solution which the FCC ultimately adopts.

The DCA believes that none of Recommendation 1's alleged bases for rejection of the common routing solution have no merit. The DCA responds to each of those arguments in Section III below.

As the Commission reviews the Report and the comments of interested parties, and evaluates and selects a LNP solution for California, the DCA urges the Commission to remain cognizant of several factors which the DCA believes have influenced the Task Force's activities, Report and recommendation. There are natural biases inherent in any decisionmaking body such as the Task Force, where the developers of proposed solutions also are decisionmakers in selecting a solution. One cannot ignore the fact that almost all of the LNP proposals were developed by large telecommunications providers. The stake which each developer of an LNP proposal has in seeing its own proposal adopted, and the significant monetary and market implications inherent in the selection of one proponent's solution over the others, is alluded to by the statement of a representative of one proponent's solution, who opined that the LNP solution selected by California's Commission will be adopted by the FCC as the LNP solution for the whole country. Moreover, each of the LNP proposal developers has strong business interests in both minimizing its own costs for local number portability and maximizing that cost for competing providers.⁵ It appears that the developers of the LNP proposals sometimes find it difficult to put the interests of California and its consumers ahead of their own business interests.

In contrast, the Commission, in evaluating the LNP proposals and the Task Force's alternative recommendations, should focus primarily on the impact of each proposal on consumers, including the relative costs of each proposal – an important factor in selecting a long-term number portability solution because it is a cost which California consumers ultimately will bear.

Lastly, as discussed in Section V, even once a LNP solution is selected, there remain many issues relative to implementing long-term local number portability which the Task Force has not yet adequately addressed. The DCA believes that a Commission order identifying further issues to be addressed by the Task Force, establishing deadlines for reporting on those issues to the Commission, and creating an expeditious dispute resolution mechanism for Task Force disputes, may be beneficial in providing the Task Force with additional impetus to expeditiously resolve those issues.

⁵ It is the DCA's understanding that the cost to implement any of the LNP proposals may vary significantly among the different telecommunications providers. For example, the number and types of switches, and other software and hardware that particular providers have in place, are major factors which contribute heavily to the costs they will incur to implement a particular LNP solution. In short, the most economic solution for one provider may be a very uneconomic solution for another provider.

**II. THE LNP SOLUTION ADOPTED BY THE COMMISSION SHOULD
ALLOW FOR FLEXIBILITY, FUTURE INNOVATIONS
AND IMPROVEMENTS, AND SHOULD PROMOTE COMPETITION.**

The common routing solution embodied in Recommendation 2 envisions the Commission's establishment of LNP solution parameters, which would include the common routing mechanism which the Task Force has agreed is the appropriate routing algorithm for California -- location routing number ("lrn")⁶ -- and operating standards. Beyond that, the Commission should allow each telecommunications provider to select and implement the triggering mechanism which is most efficient and cost-effective in its network.

Section 5.5 of the Report -- "Triggering and Routing Issues" -- states that:

Two major components of call set-up in a LNP environment are the triggering mechanism and the routing mechanism. Triggering refers to the determination of when it is necessary to query a database. Routing refers to how calls will be routed through a network (or networks) from the originating switch to the serving switch.

Solutions that use different triggering mechanisms can co-exist so long as the same routing mechanism is used.⁷ This routing mechanism must include population of the appropriate SS7 fields⁸ and execution of software to provide the corrected called number to the terminating switch. The routing mechanism used must include enough information so that calls can be routed properly between networks. The routing mechanism must also ensure that the receiving networks can determine if a database query has been performed on the call. **The Task Force has agreed that the recommended routing mechanism is the location routing number.** [Emphasis added; first footnote added, second footnote in original.]

Thus, although the Task Force may have been unable to reach consensus on little else, the Task Force is in agreement as to the appropriate routing mechanism and, in general, the operating standards which any LNP solution must apply and meet in order for the LNP solution to be

⁶ The term "location routing number" ("lrn") refers to a specific routing mechanism. It does not refer to AT&T's proposed LNP solution -- "Location Routing Number" ("LRN"). Although lrn is the routing mechanism used by AT&T's LNP proposal, as well as other LNP proposals, it is distinct and separable from LRN, and should not be confused with, or interpreted to mean, LRN.

⁷ Although some Task Force participants have at times asserted that AT&T's LNP proposal -- Location Routing Number (LRN) -- cannot be implemented in conjunction with other triggering mechanisms, that position clearly is contrary to the Report adopted by all Task Force participants, including AT&T. [DCA footnote.]

⁸ The following SS7 ISUP fields must be populated: Forwarded Call Indicator ("FCI"), General Address Parameter ("GAP"), and Called Number Field. [Footnote in original.]

interoperable with other LNP solutions or triggering mechanisms.⁹ With those parameters in place, the Report confirms that the Task Force believes that implementing multiple triggering mechanisms is technically feasible. The only question is whether such a flexible LNP solution is the best choice for California.

The DCA believes that it is important that the Commission create a telecommunications marketplace environment which encourages innovations and enables California to benefit from them. That goal applies to the LNP issue as well as to other areas of the telecommunications marketplace. It seems to the DCA that that goal probably would be jeopardized if the Commission limits California to the implementation of an LNP solution which allows only one type of triggering mechanism, as Recommendation 1 seeks.

It appears to the DCA that the development of viable LNP solutions is still in its early stages. Within the approximately 18-months that telecommunications providers and their suppliers have been working on this issue, significant improvements in the various proposed solutions have been made. For example, some LNP solutions which appeared most promising eight months ago when the first technical presentations were made to the Task Force have since been shown to contain qualities unacceptable in a long-term local number portability solution. As a further example, at a recent Task Force meeting, one software manufacturer reported that it is developing a new, alternative triggering mechanism – Query on Release. Moreover, the FCC's investigation into this issue pursuant to the Act should be a strong incentive for innovators involved in creating LNP solutions to continue to improve upon the solutions now available. There is every reason to believe that this evolutionary and innovative process will continue.

For all of these reasons, the DCA believes that the ideal LNP solution is one which: (1) sets standards which the LNP solution must meet and parameters within which it must operate; (2) allows and encourages innovation, and major improvements and changes to the solution; and (3) gives providers the greatest flexibility possibility to implement triggering mechanisms which are most economically feasible for them. Importantly, as innovation and improvements refine current LNP triggering mechanisms and create new ones, a provider could adopt a different and better triggering mechanism at some later time, so long as that new triggering mechanism meets the criteria established by the Commission. The DCA believes that the Commission can accomplish all of those objectives by adopting the common routing solution recommended in Recommendation 2.

⁹ Because the DCA does not have staff with technical telecommunications expertise, the DCA is not equipped to provide the Commission with specific identification of the additional operations standards which the Commission might adopt. However, based on the DCA's participation in the Task Force and its discussions with other interested parties, the DCA believes that the telecommunications providers and industry groups such as the T1S1.3 subcommittee have ample information from which the Commission could identify any additional operations standards which the Commission should adopt.

The DCA recognizes that the routing mechanism and operation standards which it recommends would likely reflect some of the elements of the LRN proposal. However, one major advantage of adopting the common routing solution, rather than the LRN proposal, is that the common routing solution establishes the parameters within which any California LNP solution must operate, while providing the opportunity for, and even encouraging, innovation and improvements in LNP systems within those parameters. Thus, it provides the best opportunity for California's consumers to be early beneficiaries of that innovation, and potentially bolsters California's economy.

III. COMMENTS RESPONDING TO RECOMMENDATION 1

A. The Mission Statement

Proponents of Recommendation 1 state that "[t]he Task Force did not choose these words [the mission statement] casually: each word is included for a reason."¹⁰ Although the DCA had not yet begun its participation in the Task Force when the mission statement was drafted and adopted, the DCA does not dispute the accuracy of the quoted statement. Assuming that the statement is accurate - that each word was included for a reason - it follows that words not included also were not included for a reason. Contrary to the implication in Recommendation 1, the mission statement does not state that a goal of the Task Force is to reach consensus on a "single" LNP proposal.¹¹ If words for the mission statement were carefully selected and included, or not included, then the absence of reference to selecting "one" or a "single" LNP proposal should be given as much significance as the words contained in the mission statement.

A "solution" to a problem can be multi-faceted; it can encompass alternative approaches. Importantly, the proponents of Recommendation 1 do not argue that Recommendation 2 is not technically feasible, or that adopting a LNP solution which forces implementation of only one triggering mechanism is a technical necessity. In fact, the Task Force has agreed (and admitted) that it would be technically feasible for California to adopt a solution which allows the use of more than one triggering mechanism, so long as a standard routing mechanism and operating standards are established and applied.¹² Therefore, the technical feasibility of Recommendation 2 is not in issue here. Rather, proponents of Recommendation 1 argue that, for various reasons, a multi-triggering

¹⁰ Report, Section 7.0, at p. 44, ¶ 3.

¹¹ See Report, Section 7.0, at p. 44, ¶ 3.

¹² Report, Section 5.5, at p. 34, ¶ 2.

mechanism solution is not the best choice for California. As discussed below, the DCA respectfully disagrees with each of the bases asserted in support of that conclusion.¹³

B. The Extent to Which Allowing the Use of More Than One Triggering Mechanism will Delay Implementation of LNP is Not Known.

Proponents of Recommendation 1 argue that adopting a solution which allows multiple triggering mechanisms will significantly delay LNP implementation. The DCA shares the concern of telecommunications providers that LNP implementation should proceed as quickly as possible. The DCA believes that its caveat to Recommendation 2 adequately addresses that concern.

The availability of software to operate any of the LNP proposals will be driven in large measure by the decision this Commission makes with respect to a LNP solution, the demands of the software manufacturers' customers (the telecommunications providers), and the amount of changes to the current software which the various solutions require. The DCA is unaware of any definitive data on the extent to which the implementation of an LNP solution which allows (but does not require) the use of more than one triggering mechanism would affect a timeline for the availability of the software of LRN alone. Therefore, the DCA submits that the proponents' argument is speculation, and should be treated by the Commission as such. If the Commission wishes a realistic assessment of the impact that allowing the use of multiple triggering mechanisms might have on the development of LRN software, the Commission should confer directly with switch software manufacturers.

Moreover, irrespective of the software manufacturers' response to that issue, as stated above, the availability of software is only one of many elements necessary for the implementation of any LNP solution. Based on the information (or lack thereof) provided to the Task Force, none of the parties has sufficient data upon which to base an accurate estimate of when all of the elements and systems necessary to implement any of the LNP proposals will be operable and ready to implement. Therefore, before deciding the extent to which allowing multiple triggering mechanisms might affect the implementation of LRN, the Commission also should require the Task Force to provide the Commission with a report establishing a timeline for implementing all of the other elements necessary for LNP implementation.

¹³ The DCA notes that the proponents of Recommendation 1 have failed to cite to any evidence provided to the Task Force or the Commission which supports their arguments. In weighing and evaluating the LNP proposals and the Task Force's alternative recommendations, the Commission should remain cognizant of the fact that neither of the recommended solutions has been subjected to extensive testing. In fact, the software for the recommended solutions has not yet been developed. (See, Report, Appendix 4, "California Cable Television Association's Comments on LNP Proposals -- Pros and Cons", page 1, LRN - Cons, Item 1.) Therefore, some of the claims made by the proponents in the Report are "theoretical" (see, e.g., Report, Section 3.1, at p. 7, ¶ 3.), and actual testing may prove them inaccurate.

**C. A Common Routing Solution Does Not
Create an Unlevel Playing Field.**

Proponents of Recommendation 1 argue that adoption of "RTP" (not adoption of a common routing solution) creates an unlevel playing field because RTP requires that CLECs continue to rely on the incumbent network for rerouting all calls originating in that network to ported numbers acquired from that network. As the DCA understands the LNP proposals, only if RTP were adopted as the sole LNP solution would this statement be correct. However, no one has recommended that result.

The assertion certainly is erroneous with respect to the common routing solution. One of the most important positive attributes of the common routing solution is that it allows each telecommunications provider to select and use the triggering mechanism it deems most effective and cost-efficient for its network, allowing each provider choices regarding how to reconfigure its network and operating systems to provide local number portability. Only those providers who elect to use RTP as a triggering mechanism, and who also elect to contract for that service from the incumbent LEC rather than modify their own networks, would rely on the incumbent network for call rerouting of ported numbers.

**D. Any Post-Dial Delay Caused by Any LNP
Solution Probably Will Not Be Either Significant
or Sufficient to Be Anti-Competitive.**

Proponents of LRN argue that both the common routing solution and RTP/lrn are not competitively neutral, and may be anti-competitive, because calls to non-ported numbers will not be subject to the same call set-up delays as calls to ported numbers.¹⁴ In evaluating this argument, the Commission should consider several factors.

First, in evaluating the arguments of the proponents of Recommendation 1, the Commission's primary focus should be to assure that, to the greatest extent possible, non-ported customers are not negatively impacted by the implementation of local number portability.

Second, since the software for both LRN and RTP/lrn has not yet been developed, neither proposal has been thoroughly tested. Therefore, there is not sufficient data to confirm any difference in the length of post-dial delay caused by either proposal, or whether any such post-dial delay will be sufficient to be detectable by most customers. Once the software is developed and tested, although it is possible that the test results could show that the call set-up time for one proposal is significantly less than the other, the DCA believes it is more likely that any difference in call set-up time will not

¹⁴ Report, Section 7.0, at p. 47, ¶ 3; see also, e.g., Attachment 4, "AT&T's Comments on LNP Proposals - Pros and Cons," p. 2., RTP/lrn Cons, item 2; "California Cable Television Association's Comments on LNP Proposals - Pros and Cons," p. 4, LRN/RTP Cons, item 1; and, "MCImetro's Comments on LNP Proposals - Pros and Cons," p. 1, RTP/lrn Cons, item 1.

be appreciable or discernable to customers. Indeed, although there are no definitive test results as proof, the proponents of LRN assert that the "incremental post-dial delay [caused by LRN] . . . is expected by the proponents to be insignificant compared to post-dial-delay factors already present in every call, and therefore will probably be transparent to the calling party."¹⁵

Third, using the LRN architecture, once one number in the NXX becomes a ported number, the NXX becomes "portable." The result is that once one number in an NXX is ported, all interswitch calls made to that NXX must be subjected to a database dip,¹⁶ with the resultant post-dial delay. Proponents of LRN argue that customers will not want to change local exchange providers if their calls are subjected to additional perceptible post-dial delay; they argue that this is an important and positive aspect of LRN because it makes LRN "competitively neutral" and benefits customers because all customers are subjected to equal post-dial delay. If the proponents of Recommendation 1 are correct that the post-dial delay created by LRN will be insignificant and probably transparent to end-users, then it would appear that delaying calls to non-ported numbers does not contribute to competitive neutrality.

Fourth, and most importantly, because every interswitch call to a portable NXX would be subjected to a database dip, irrespective of whether the call was to a ported number, that means that, at least initially, many of the database dips would be unnecessary because most of the numbers in the NXX would not be ported.¹⁷ However, each of those unnecessary database dips generate a cost which must be borne by someone. The DCA believes that all of the costs of long-term local number portability ultimately will be borne by telecommunications customers, irrespective of whether the rates of a particular telecommunications provider are regulated. Although the initial capital for implementation may come from shareholders, the shareholders will be investing their money in anticipation that the telecommunications providers will be able to charge sufficient amounts for number portability and/or other services to allow them to recoup that investment and earn a profit. Thus, even in a totally competitive marketplace, the cost of any LNP solution, including the cost of unnecessary database dips, ultimately will come out of the pockets of telecommunications customers.

Therefore, the Commission must weigh the purported benefit and "competitive neutrality" of requiring database dips for every call against the cost to consumers of paying for many unnecessary database dips.

¹⁵ Report, Section 6.3, at p. 39, ¶ 2; see also, Section 3.1, at p. 8, ¶ 4.

¹⁶ Report, Section 6.3, at p. 39 ¶2.

¹⁷ Such database dips are not necessary when using a switch-based triggering mechanism, such as RTP. (Report, Section 3.2, at pp. 10, ¶ 5; p. 11, ¶ 3; and Section 6.3, p. 39, ¶ 3.)

E. Adoption of a Common Routing Solution Does Not Increase the Complexity of Local Number Portability.

Proponents of Recommendation 1 argue that adoption of a common routing solution would impose additional effort and costs on the telecommunication industry and regulators to develop interface specifications and interoperability standards among the various triggering mechanisms. Although the DCA does not have the technical expertise of telecommunications providers, the DCA's participation in the Task Force and its information relating to the T1S1.3 subcommittee leads it to believe that adoption of a common routing mechanism and development of operating standards for all solutions would require minimal effort on the part of the Commission. As stated above, the Task Force already has agreed upon the appropriate routing mechanism – the lrn algorithm. Even though operating standards in addition to those discussed in the Report would, no doubt, be necessary, the Task Force discussions lead the DCA to believe that, given sufficient incentives, within a relatively short period of time industry participants should be able to reach agreement on operating standards necessary to implement the common routing solution.

The proponents of Recommendation 1 also assert that adopting the common routing solution would force vendors, and possibly national telecommunications providers, to "implement multiple solutions, or, at a minimum, to develop the ability to interwork with multiple solutions."¹⁸ Again, while the DCA does not have access to technical engineers, as DCA understands the LNP proposals, if the common routing solution were adopted, telecommunications providers who wish to implement LRN could do so without any additional changes to LRN.

The proponents of Recommendation 1 also argue that adoption of the common routing solution would delay software development because vendors would have to focus on developing software for more than one solution. The DCA has already addressed that argument above, and will not repeat it here.

F. Adoption of a Common Routing LNP Solution Should Not Increase the Cost of Implementing Local Number Portability.

Proponents of Recommendation 1 argue that adopting a common routing LNP solution would delay the implementation, and increase the cost, of LNP. They also assert that California ratepayer would bear the cost of developing RTP and retrofitting it for location and service portability.¹⁹ As stated above, the DCA believes that, in fact, California telecommunications customers ultimately will bear the cost of developing and improving any LNP solution, including LRN, and/or any triggering mechanisms, including RTP, which the Commission allows telecommunications providers to deploy.

¹⁸ Report, Section 7.0, at p. 48, ¶ 2.

¹⁹ Report, Section 7.0, at p. 48, ¶ 3.

As the DCA views it, adopting a common routing solution which allows multiple triggering mechanisms should not mean increased costs for California consumers. To the contrary, one of the advantages of the common routing solution is that it allows each telecommunications provider to select the triggering mechanism which is most efficient and cost effective for its network. In a truly competitive market, each provider will adopt the triggering mechanism which is most efficient, and at the same time most cost-effective. That is because, in order to stay in business, it will need to provide local number portability at a price which it can pass on to its customers and, at the same time, remain competitive with other providers.²⁰ In other words – the common routing solution is a pro-market solution.

**G. Adoption of a Common Routing Solution
Would Decrease the Commission's Regulatory Burden.**

Proponents of Recommendation 1 argue that "the added complexity associated with multiple solutions" would burden the Commission by increasing the regulatory oversight necessary for local number portability.²¹ In the DCA's view, just the opposite is true. By adopting a common routing mechanism and operating standards, and allowing multiple triggering mechanisms, the Commission would stimulate future innovations, and allow those innovations to be implemented without further study, hearings, or decisions by the Commission. In contrast, if the Commission adopts LRN as the only LNP solution, and improved solutions are later developed, or the FCC orders a different solution, further regulatory burdens would be imposed on the Commission to re-evaluate California's LNP solution. It would seem that if California adopts a flexible LNP solution, that solution is likely to be workable with whatever LNP solution the FCC adopts; in that situation, it would seem likely that California might obtain approval to maintain its LNP solution because it would be interoperable with, and not burden, the FCC-adopted LNP solution.

The proponents also argue that adopting a common routing solution would generate protracted litigation because of "the inherent differentiation in treatment between ported and non-ported calls when RTP/lrn is used."²² First, this argument applies to RTP, not to the common routing solution,

²⁰ Of course, to the extent that rates are regulated and the marketplace is not truly competitive, providers may not have as much incentive to select the most cost-effective LNP solution so long as they are able to pass the cost along to their ratepayers without concern about the need to offer competitive rates. Therefore, it seems to the DCA that the proponents' argument has merit only in a regulated marketplace. As the DCA understands it, the Commission's vision of the future is a competitive, rather than a regulated, telecommunications marketplace, with telecommunications prices set by the market rather than the Commission; the DCA shares that vision. The DCA believes that the Commission and the parties must always keep that vision and goal in mind when making decisions which will fashion the telecommunications marketplace of the future.

²¹ Report, Section 7.0, at p. 48, ¶ 4.

²² Report, Section 7.0, at p. 48, ¶ 4.

and should be discarded on that basis. Additionally, in Section III.D., above, the DCA already has refuted the assertion that any difference in treatment between ported and non-ported calls should be of concern to the Commission. Telecommunications providers can choose to litigate virtually any issue or perceived slight or offense they choose. Whether or not some telecommunications providers ultimately may choose to litigate an issue should not be a factor in the Commission's decision regarding the selection of the appropriate LNP solution for California.

IV. COMMENTS REGARDING THE INFORMATION SUPPLIED TO THE TASK FORCE

Although the DCA was generally satisfied with the conduct of the Task Force, the DCA was troubled by the lack of information made available to the Task Force at each stage of the evaluation process. The DCA believes that the Commission should be cognizant of those deficiencies as it evaluates the Report and the Task Force's recommendations.

A. Technical Data

The DCA found information provided at the technical presentations for each of the LNP proposals to be beneficial. However, the DCA found some of the responses to the technical matrix to be less than satisfactory. Virtually every response to a technical matrix element by every LNP proposal proponent indicated full compliance with the element criteria. Had the Task Force evaluators scored the LNP proposals based only on the responses to the technical matrix, each of the solutions would have received almost perfect, almost identical scores. In some circumstances, a more accurate response would have at least included qualifications and/or indicated that the answer is not currently known.

B. Economic Data

The DCA recognizes that at least some telecommunications customers will be reluctant to change telecommunications service providers if doing so requires that they change their telephone number. Thus, the lack of number portability, at least to some degree, places all new competing local exchange carriers (CLECs) at a competitive disadvantage. Thereby, it also is likely to reduce the number of competitors in any given area, and to reduce the concomitant benefits which inure to consumers as a result of competition.

The DCA believes that the Commission's decision establishing the wholesale rate which the LECs can charge for the short-term LNP solution currently being deployed -- Remote Call Forwarding ("RCF") -- appears to be a fair resolution of the competing interests of the parties. Even so, to the extent that a long-term LNP solution will result in a lower per-customer cost than RCF, the DCA recognizes that the current charge for RCF which the CLECs and/or their customers must absorb also may deter competition and its resulting benefits to consumers.

Nonetheless, the DCA does not believe that those concerns mandate hasty adoption of a LNP solution. The DCA believes that selection of a LNP solution should be accomplished by weighing the technical acceptability and competitive neutrality, along with the economic feasibility of each solution.

The DCA was disappointed with the lack of depth at which the Task Force dealt with economic issues relating to the LNP proposals. The DCA believes that the Task Force neither fully achieved its stated mission as it relates to the economic elements of long-term number portability, nor fully complied with the order issued by the Commission's Administrative Law Judge on November 27, 1995, which specified the information which the Task Force's report should contain ("ALJ Decision"), including economic analysis and information.

Moreover, the DCA is particularly concerned about the presently unknown costs of the LNP solution. The Report reflects that there remain some potentially significant cost elements for all of the LNP proposals which many of the telecommunications providers have thus far declined to address or discuss.²³ There also are some cost elements for which the costs are as yet unknown, although most of the Task Force participants agree that those costs probably are substantial.

The DCA finds it difficult to comprehend that any large business would evaluate and approve a major project or program without extensive information about both the costs which would be incurred to implement the project or program and the anticipated demand for the product or service which would enable the business to recoup those costs and generate a profit. Yet, it seems to the DCA that most of the proposal proponents – the major telecommunications providers – placed the Task Force in exactly that position.

While the DCA understands that some of the major telecommunications providers intend to file under seal with the Commission cost information in addition to that provided to the Task Force, the DCA is concerned that the cost data provided to the Commission also may not be sufficient to enable the Commission to make an informed decision, placing the Commission in virtually the same position as were Task Force evaluators in attempting to assess the economic aspects of the LNP proposals. The DCA urges the Commission to issue whatever orders it deems appropriate in order to assure that it has adequate cost information to allow it to make an informed business decision about the election of California's LNP solution.²⁴

Absent that kind of analysis, the Commission, and ultimately California's consumers, are placed in a position similar to a consumer who enters into a contract with a contractor to build a

²³ Report, Section 4.3.d., at p. 25-26.

²⁴ Since each telecommunications provider should implement the triggering mechanism which is most cost-effective in its network, the DCA believes that the Commission can obtain a fair concept of the cost of implementing the common routing LNP solution by using the least expensive of the cost estimates for LNP solutions provided to the Commission by each provider.

house, without knowing what the cost to build the house will be, whether the consumer can obtain a loan to cover that cost, or whether the consumer can, or is willing to, make the loan payments.

C. Implementation Schedule Data

As discussed above in Section III.B., and in the Report, software development and availability is only one of many aspects of local number portability which must be addressed, developed, available, and ready for operation before long-term local number portability can be implemented.²⁵

Absent an analysis of when those other elements necessary to LNP implementation will be operable, the DCA believes it is not possible to make an intelligent judgment about whether one solution will be available significantly before other solutions are available; therefore, assertions about when any solution will be ready for full implementation are speculative and suspect. The Commission should consider this information deficiency when weighing the assertions of the proponents of each LNP proposal regarding the deployment timelines.

The DCA also believes that one portion of the Report may be slightly misleading. In the ALJ Decision, the ALJ asked the Task Force to provide an estimated timeframe for implementing the LNP proposals, and if a phased-in approach is considered more appropriate, to provide a timeframe for the phase-in. In response to that question, the Report states that "[t]he Task Force has not yet assessed a phased-in approach."²⁶ However, in another section, the Report accurately reflects the discussion of the Task Force on this issue – that whatever LNP solution is selected will not be initially deployed simultaneously throughout California, but will be deployed using an area-by-area phased-in approach.²⁷

V. THE COMMISSION SHOULD ISSUE FURTHER ORDERS TO THE TASK FORCE REGARDING REMAINING ISSUES TO BE ADDRESSED, INCLUDING REPORTING REQUIREMENTS.

As reflected in the Task Force's report, selecting a LNP solution is only the first of many steps in the process of implementing a LNP solution. The Task Force was not provided with sufficient information to evaluate many economic aspects of LNP. Additionally, many implementation issues – for example, issues relating to billing, directory assistance, and operator services – also need to be addressed. The Task Force acknowledged that these and many other issues relative to implementing long-term local number portability must be addressed before a LNP solution actually can be implemented.²⁸

²⁵ See Report, Section 4.4, at p. 26, footnote 9.

²⁶ Report, Section 6.1, at p. 35, ¶ 2.

²⁷ Report, Section 7.0, at p. 46, ¶ 1.

²⁸ Report, Section 4.3d, at p. 25-26, and Sections 5.4(a)-(g), at p. 32-33.

Although the Task Force expressed its intent to continue to meet and resolve those issues, based on the inability of the Task Force to reach a consensus on a LNP solution, the DCA is concerned that the Task Force also may find it difficult, if not impossible, to reach consensus on the many other LNP issues which remain to be addressed.

The ALJ's Ruling, although issued late in the process, focused the Task Force on specific outcomes. Prior to that ruling, some Task Force members indicated an intent to provide the Commission with a much less detailed report. Even though the DCA believes that the Report remains lacking in certain respects, it is much more focused and detailed as a result of the ALJ's ruling than it otherwise might have been.

For those reasons, the DCA believes that further specific direction from the Commission might be a helpful encouragement for the Task Force to engage in meaningful attempts to resolve the remaining issues. The DCA is concerned that, without that additional impetus to reach consensus on the remaining issues, the Task Force's efforts will degenerate into an unproductive power struggle between the two major factions. Therefore, the DCA recommends that the Commission issue further orders to the Task Force, which probably should include specific outcomes, reporting items, and deadlines for reporting to the Commission. It also may be helpful for the Commission to establish a speedy dispute resolution process which the Task Force may invoke in the event it reaches an impasse on important LNP issues.

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Respectfully submitted,



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