1 Service under Pacific's local exchange tariff, which does not provide any usage allowance
2 for outgoing local messages.[5] Pacific does not offer a flat-rate local exchange tariff to
3 business customers in California.
4
5 In some communities, Pacific's local service customers are required to subscribe to
6 mandatory "Expanded Area Service" (EAS), in which one or more additional exchanges are
7 included in the customer's local calling area (where no long distance charges apply) for an
8 additional fixed rate increment which is folded into the applicable monthly exchange rate for
9 that exchange. (Calls placed to all other points within the same LATA are rated as
10 intraLATA toll.) In the principal metropolitan areas of the state, flat- or local measured-rate
11 calling is limited to an area within twelve (12) "rate miles"[6] of the exchange from which the
12 call is originated. Calls in excess of 12 miles and up to 16 miles are rated as "Zone Usage
13 Measurement" ("ZUM") calls that are considered "local" for jurisdictional purposes and are
14 included within the monthly calling allowance for measured-rate residence service (whereas
15 intraLATA toll charges are not), but which carry toll-like per-minute charges that are higher
16 than the rates applicable for calls within the 12-mile band. Whatever the precise form of
17 local service plan, and whether priced on a flat-rate or usage-sensitive basis, what is
18 common to all of them is that the *originating end user* pays the *originating local carrier* an
19 amount designed to cover the entire cost of getting the call from the origin to its destination.
20

5. Pacific Bell Schedule CAL P.U.C. A5, Sheet 210.2 (revision 1), Effective March 10, 1998.

6. Distance for call rating purposes is calculated from the basing point of the originating exchange to the basing point of the terminating exchange, using so-called Vertical and Horizontal (V&H) coordinates as specified in National Exchange Carrier Association (NECA) Tariff No. 4. Actual distances from the calling to the called parties' locations may vary, up or down, from these "rate mile" calculations.

Q. Are GTEC's retail local exchange offerings also based upon a "sent paid" approach to recovering the costs of local calling?

A. Yes, they are. Although the specific rates differ, the structure of GTEC's California rates is generally comparable to that used by Pacific. GTEC's residential customers have a choice of Flat-Rate Service for $17.25 per month, or Measured-Rate Service at $10.00 per month, plus local usage charges.[7] GTEC's residential Measured-Rate Service includes a $3.00 usage allowance each month applicable to local and ZUM calls,[8] beyond which GTEC applies time-of-day sensitive local usage charges on an initial minute/additional minutes basis.[9]

For business customers, GTEC offers Measured-Rate Service for individual lines or trunks at a monthly rate of $19.22 or $29.75 depending upon the exchange,[10] to which the same time-of-day sensitive local usage charges apply, with no monthly calling allowance. In addition to the basic service, GTEC offers EAS to business and residence basic exchange customers in certain exchanges, at monthly increments ranging from $0.70 to $12.80 for business customers and $0.45 to $4.23 for residence customers.[11]

7. GTE California Incorporated Schedule Cal. P.U.C. No. A-1, Sheet 10.2 (revision 35), Effective August 23, 1995.

8. GTE California Incorporated Schedule Cal. P.U.C. No. A-1, Sheet 13 (revision 18), Effective January 1, 1995.

9. GTE California Incorporated Schedule Cal. P.U.C. No. A-1, Sheet 10.13 (revision 27), Effective June 1, 1991.

10. GTE California Incorporated Schedule Cal. P.U.C. No. A-1, Sheet 2 (revision 36), Effective August 1, 1999. GTEC also offers key line/multiline service and PBX trunk services at higher rates (id.).

11. GTE California Incorporated Schedule Cal. P.U.C. No. A-1, Sheet 11.3 (revision 9), Effective August 29, 1999.

Q. Is this "sent paid" approach to local calling a recent development, or has it been in place for some time?

A. This arrangement has been in place since the introduction of local telephone service more than a century ago, and has provided the framework both for the interchange of traffic as well as for the allocation of usage revenues as between two incumbent local exchange carriers (e.g., Pacific and an Independent Telephone Company). With the introduction of Competitive Local Carriers ("CLCs") into the local service market, this same longstanding framework has now been extended to the new entrants as well.

Q. How are connecting carriers compensated, under the "sent paid" paradigm, for terminating calls that are originated by customers of a different local carrier?

A. When two interconnecting carriers (A and B) jointly complete a local call, the originating carrier is responsible for paying the carrier that terminates the call. Carrier A is paid by its customer to complete a "full call", but performs a "half-call" itself (from origination to hand-off point), and thus must pay Carrier B to perform the second "half-call" (from hand-off point to termination).

Reciprocal compensation is simply the payments made by the first (originating) carrier to the second (terminating) carrier for its work in completing the call. It is referred to as "reciprocal" in that the flow of payments is intended to mirror the flow of traffic; i.e., Carrier A pays Carrier B for terminating calls originated on A and handed off to B for termination, and Carrier B pays Carrier A for terminating calls originated on B and handed off to A for termination. The per-minute amount for these payments is supposed to be equal, such that if the traffic flow is precisely in balance (i.e., A gives B the same amount of traffic as B gives

1 A), then no net payment, in either direction, would take place. Specific compensation
2 mechanisms, including explicit reciprocal compensation payments and bill-and-keep
3 arrangements, are discussed further below.
4
5 Q. Is this type of inter-carrier compensation arrangement peculiar to the telecommunications
6 industry?
7
8 A. No, in fact it has long been both the tradition and the practice throughout common carrier
9 industries like transportation and telecommunications for certain types of customer-initiated
10 service requests to be fulfilled by more than one service provider. Rail shipments frequently
11 involve several different railroad companies; indeed, it is not at all uncommon for one
12 railroad's rolling stock to be transported over another railroad's tracks where the ultimate
13 destination of a particular shipment goes beyond the geographic extent of the originating
14 railroad's network. In some cases, multiple carriers may be involved even where it is
15 possible for the entire service to be furnished by one provider. For example, a passenger
16 might want to travel from San Francisco to Boston. Although this trip could be completed
17 on the same airline, the passenger might want to change airlines at some interconnecting
18 point in order to obtain preferred flight times or simply because he or she needs to stop off at
19 that location. Where two or more carriers are involved in a particular routing, the customer
20 typically deals only with the first carrier in effecting the service transaction (i.e., arranging
21 and paying for the freight shipment or making flight reservations and paying for the ticket
22 for the entire trip). In this context, that first carrier acts as an agent for all subsequent
23 carriers, and hands over a portion of the total payment received for the entire service to the
24 subsequent (connecting) carrier(s) in some proportion to each's respective role in fulfilling
25 the totality of the service delivery. This payment is not a "cost" to the initial carrier; rather,

it is simply a *remittance* paid by it to one or more other carriers for their share of the total service that is being furnished to the customer.[12]

Reciprocal compensation payments made by originating LECs to terminating LECs are entirely analogous. They are not "costs" to the originating carrier in the traditional sense, although one might argue that they represent competitive losses in that the originating ILEC might have in the past carried the entire call if the CLC were not present in the market. However, the payment made by the ILEC to the CLC for traffic handed-off to the CLC is simply a remittance of monies collected from the ILECs customer for a total end-to-end service a portion of which is furnished by a connecting carrier rather than by the ILEC itself.

Q. Some ILECs have contended that they are not adequately compensated for the additional usage costs they incur due to ISP-bound traffic, and thus need to reduce or entirely eliminate their reciprocal compensation remittances to CLCs for termination of ISP-bound calls. How do you respond?

A. Under the "sent-paid" compensation framework, to the extent that an ILEC incurs additional network usage costs because of local dial-up calls to ISPs, those costs are to be recovered from the originating customer through that customer's payments under the originating carrier's local exchange tariffs. If for some reason an ILEC is unable to obtain sufficient local service revenues from its end user subscribers to cover the usage costs associated with

12. The initial carrier might incur transaction costs relating to its role in facilitating the end-to-end service, e.g. in performing billing and collection functions for the connecting carriers. However, any such costs are conceptually distinct from (and typically minimal in comparison to) the revenues that ultimately must flow to the connecting carriers as compensation for their (continued...)

1 that customer's dial-up ISP calls, the ILEC's recourse is to adjust its local exchange rate
2 structure, rather than to attempt to escape its reciprocal compensation obligations to CLCs
3 which terminate those calls.
4
5 However, ILECs' existing retail local exchange tariffs are generally set at sufficiently high
6 levels to compensate for most, if indeed not all, of the ILEC's usage costs associated with
7 local dial-up calls to ISPs. For example, consider a California subscriber to America On-
8 Line's (AOL's) ISP service who connects to AOL through a second residential exchange
9 line obtained from Pacific. According to recent AOL statistics, its average per-subscriber
10 usage is 64 minutes a day, or some 32 hours per month.[13] Assuming an average per-call
11 duration of 30 minutes, such usage during Pacific's Evening rate period (which is when
12 AOL experiences its peak-hour use) has an associated incremental usage cost of PROP<<
13 $XXX>> END PROP, based on Pacific's most recently approved total service long run
14 incremental costs (TSLRICs) for local usage.[14] However, Pacific's tariffed rate for a flat-rate
15 residence service, exclusive of EAS increments, is $10.69, which is $4.99 higher than its
16 measured-rate residence service, exclusive of EAS (i.e., $5.70).[15] When the $3.00 usage
17 allowance included in Pacific's measured service rate is also taken into account, the total
18 local usage implicit in Pacific's flat-rate charge is $7.99 (i.e., $3.00 plus $4.99) – which
19 more than compensates Pacific for the incremental costs of that customer's dial-up ISP calls.

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services.

13. See AOL's SEC Form 10-Q/A for the quarter ended March 31, 2000. Source: http://edgar.sec.gov/Archives/edgar/data/883780/0000883780-00-000057.txt (accessed 7/14/2000).

14. Pacific Bell Compliance Filing for A.L. #18434, Summary Exhibit Page 5, provided as a July 11, 2000 supplemental response to Pac-West Data Request 2-18.

15. For example, these rates apply to San Francisco exchanges. See Pacific Bell Schedule CAL P.U.C. A5, Sheet 228 (revision 6), Effective November 1, 1999.

Q. But hasn't the total local usage per residential access line increased significantly because of the growth of ISP-bound calls, so that the average local usage level already recovered in the ILECs' flat-rate tariffs is being exceeded?

A. No, in fact, there is compelling evidence that it has actually had no such effect. Data routinely collected by the FCC and published in its annual *Statistics of Communications Common Carriers* demonstrate that the Internet has had a significant impact upon the demand for additional residential access lines, but has had little impact upon the *average volume of local traffic* carried over each line. As shown in Figure 1, beginning in about 1990 the demand for additional residential access lines began to mushroom, and by the end of 1998 — the latest year for which FCC data is available — over one-fifth of all US households had an additional residence line, representing some 20.4-million such lines nationwide. During that same period, the per-line volume of local calling increased by only 19% (Figure 2). ILECs such as Pacific and GTEC realize substantial additional revenues from the sale of additional residential access lines

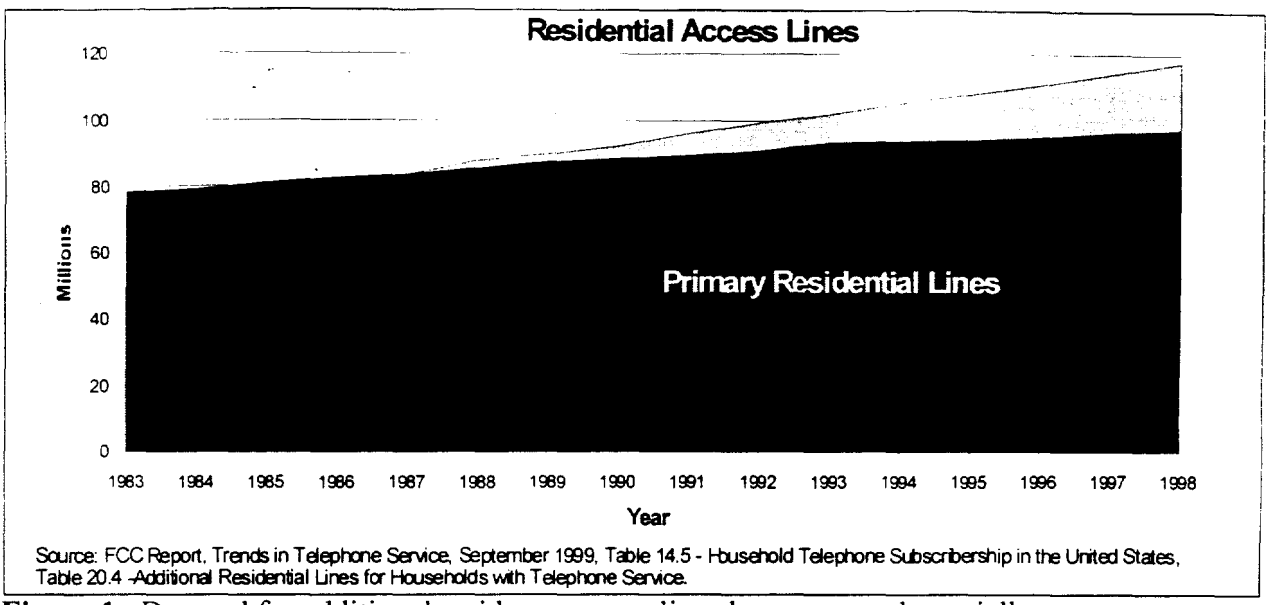

Figure 1. Demand for additional residence access lines has grown substantially.

and to the extent that CLCs participate in the carriage of traffic generated over those lines, it is both appropriate and essential that CLCs be compensated for the services they supply.

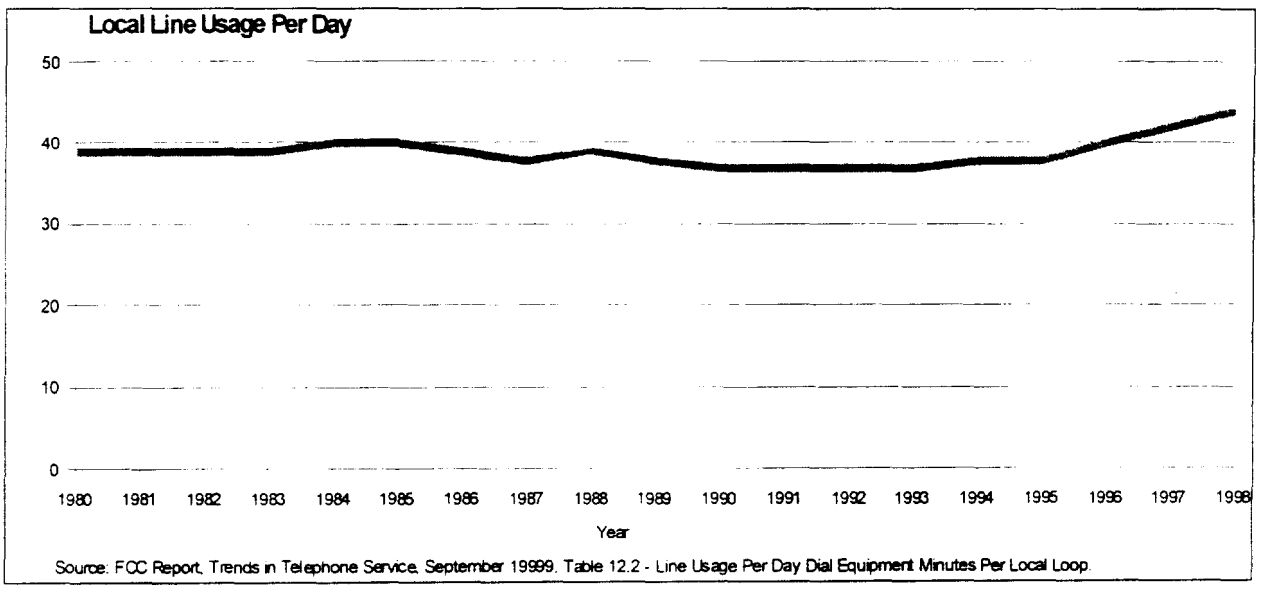

Figure 2. Demand for additional residence access lines has grown substantially.

Because ISPs are end users of telecommunications services and are not telecommunications service providers, the compensation arrangements applied to interexchange carriers (IXCs)

1 **should not be applied to ISPs.**
2
3 Q. It has been suggested by some ILECs, including Pacific's sister ILEC Southwestern Bell
4 Telephone Company ("SWBT") in Texas,[16] that the most efficient economic arrangement
5 would be for ISPs to *pay* to receive incoming calls and recover those costs from their
6 Internet users. Is that an appropriate arrangement?
7
8 A. No, it is not. As I have previously discussed, local calls are in all cases *sent-paid* by the call
9 originator. Calls to ISPs are rated as local calls (if the called number is located within the
10 caller's local calling area). If ISPs were to be charged for receiving incoming calls, the
11 effect would be a double charge, because the call originator would have already paid for the
12 call termination.
13
14 Q. Don't interexchange carriers (IXCs) pay for calls delivered to them by ILECs?
15
16 A. Yes, they do, but the "access charge" model that applies in the case of IXCs is not
17 appropriate nor applicable in the case of ISPs.
18
19 Q. Please explain.
20
21 A. Under the access charge model, the *customer* of the ILEC is the IXC, not the originator of a
22 long distance call. That is, when I place a call via an IXC, the call is routed from my phone
23 to the IXC by the ILEC as a "switched access" service, and the charge for that switched

16. See, e.g., Texas PUC Docket No. 21982, Southwestern Bell Telephone Company's Direct
(continued...)

1 access service is billed to the IXC. Indeed, the IXC will be charged for the switched access
2 connection even if the ultimate call is not completed, i.e., it reaches a busy or no-answer
3 condition. The IXC also pays switched access to the ILEC at the terminating end of the call,
4 for transporting and delivering the call from the IXC's "point of presence" ("POP") to the
5 ultimate recipient of the call. Neither the call originator nor the call recipient are billed by
6 their respective ILECs for the switched access service.
7
8 The IXC is, however, billed for this service, and recovers those payments, along with its
9 other costs (e.g., the cost of transporting the call between LATAs, retailing costs associated
10 with marketing, billing and collection, etc.) in retail long distance rates that it charges to its
11 end-user customer.
12 Q. Why isn't the access charge model applicable to or appropriate for calls delivered by ILECs
13 to IXCs?
14
15 A. There are several reasons. First, the FCC has expressly *exempted* such calling from
16 interstate switched access charges, requiring that calls to ISPs be treated and rated as *local*
17 calls and that access line services furnished to ISPs be provided as local business exchange
18 service lines out of the local exchange tariff. Second, while I am not an attorney and do not
19 render a legal opinion, in my view ISPs, unlike IXCs, are distinctly *not* telecommunications
20 common carriers as defined under current law. Rather, ISPs are themselves end-user
21 customers of telecommunications carriers, and thus are entitled to exactly the same treatment
22 as any other end-user customer. Indeed, in a March 24, 2000 ruling reversing in part the

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Testimony of Dr. Robert G. Harris, March 17, 2000, at page 6-7 and 22-23.

FCC's February 1999 *Reciprocal Compensation* order,[17] the District of Columbia Circuit Court of Appeals saw no particular reason why ISPs were any different from any other telecommunications-intensive end user:

> Even if the difference between ISPs and traditional long-distance carriers is irrelevant for jurisdictional purposes, it appears relevant for purposes of reciprocal compensation. Although ISPs use telecommunications to provide information service, they are not themselves telecommunications providers (as are long-distance carriers).
>
> In this regard an ISP appears, as MCI WorldCom argued, no different from many businesses, such as "pizza delivery firms, travel reservation agencies, credit card verification firms, or taxicab companies," which use a variety of communication services to provide their goods or services to their customers. Comments of WorldCom, Inc. at 7 (July 17, 1997). Of course, the ISP's origination of telecommunications as a result of the user's call is instantaneous (although perhaps no more so than a credit card verification system or a bank account information service). But this does not imply that the original communication does not "terminate" at the ISP. The Commission has not satisfactorily explained why an ISP is not, for purposes of reciprocal compensation, "simply a communications-intensive business end user selling a product to other consumer and business end-users."[18]

Indeed, were ISPs to be singled out among all business telephone users for special treatment, the effect would be to discriminate based upon the *content* of the individual telephone calls themselves, a move without any precedent of which I am aware.

Q. What would be the effect upon Internet users if ISPs were required to pay for the incoming calls they receive?

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17. *Bell Atlantic Telephone Companies v. FCC and U.S.*, U.S. Court of Appeals for the D.C. Circuit, Decided March 24, 2000, No. 99-1094, Consolidated with 99-1095 et al, On Petitions for a Review of a Declaratory Ruling of the Federal Communications Commission.

18. *Id.*, mimeo at 13-14.

A. Most ISPs today employ a flat-rate type of pricing plan whereby users pay a fixed monthly charge for unlimited access to the Internet. According to industry statistics, the average dial-up Internet user spends approximately 25 hours per month on the Internet. As shown in Table 1, if Pacific's current intrastate switched access charges in California were to apply for each of these 1500 minutes per month, assuming an average call duration of 30 minutes, the ISP would be required to pay some $15.14 for each customer to receive calls *for which those customers had already paid in their local telephone service rate*. Obviously, ISPs would be forced to flow-through these additional costs to their Internet user customers, effectively increasing the cost of Internet access from the roughly $20 per month that typically applies today to as much as $35 per month. Moreover, once faced with usage-based call termination charges, the ISPs may find it far more difficult to offer flat-rate Internet access, and would be forced to adopt measured-use pricing, something that would fundamentally alter the manner in which the Internet is used.

Table 1

Calculation of Potential Impact on Internet Users of Application of Pacific's Intrastate Switched Access Charges to ISP-bound calls

Average monthly connect time of Internet user, hours	25
Average duration of Internet calls, minutes	30
Pacific Bell's Intrastate SWAC:	
Source: Pacific Bell Schedule Cal. PUC No. 175-T, Section 6.8 (Switched Access Service: Rates and Charges)	
Local Switching LS2 (Feature Groups C and D):	
Per Call Setup	0.008663
Per MOU	0.001901
Tandem switching, per access minute:	0.000994
Network Interconnection Charge (NIC), per minute:	0.004488
Tandem switched transport, per access minute:	
Fixed per access minute of use:	0.00027
Per Mile per access minute of use:	0.00004
Assumed transport mileage	50
Equal Access Cost Recovery Charge	0.00041
Total monthly charges if SWAC applied to ISP-bound traffic terminated by CLEC:	
LS2 charges	$ 3.28
Tandem switching charges	$ 1.49
NIC charges	$ 6.73
Tandem transport charges	$ 3.63
EASRC	$ 0.62
Total monthly charges:	$ 15.14
Total minutes per month:	1500
Total calls (and setups) per month:	50

Note: this calculation assumes that call is handed off to a CLEC for termination, so it includes (only) originating local switching, plus transport, tandem switching, NIC, and EASRC elements.

Q. Some ILECs have contended that ISPs provide an interexchange function in terminating calls to the Internet, and that therefore the toll model is the most appropriate compensation arrangement from an economic standpoint. Do ISPs provide an interexchange function?

A. No. As the DC Circuit Court of Appeals recognized, ISPs do not provide a telecommunications service, and in particular do not provide an interexchange carrier function. When a customer dials an ISP, the call is delivered to the location where the ISP maintains a bank of modems that are then connected to host computers and routers that provide the gateway to

the Internet. If the ISP is served by the same carrier as the caller (e.g., Pacific Bell), then the call is processed entirely on that ILEC's network; if the ISP uses a different carrier (e.g., a CLC), then the call is handed-off by the ILEC to the CLC at their agreed-upon "point of interconnection." In either case, the call itself is terminated at the point of delivery to the ISP, which is no different than for any other customer.

Consider the following example. I dial a local number to reach an airline reservation desk. I talk to the reservationist and describe the trip that I want to take. The reservationist then punches some keys on a computer terminal or work station and looks at her screen to see if the flights I want are available. She then tells me what she sees on the screen. Technically, the reservationist is performing what amounts to modem functions. She translates my voice instructions into keystrokes for entry into the computer, and translates the screen display into spoken words that are communicated to me over the phone. Under the so-called "one call" theory (which holds that ISPs are performing an interexchange function because the call actually terminates on the remote web site rather than at the local ISP's modem bank), this call to the airline reservation desk would be no different than a call to the Internet. *In fact, under this theory, a call to any business that uses out-of-state information sources in telephonic transactions with its customers would also satisfy this same "one call" theory.* The sole difference between these examples and the Internet is that Internet calls involve *data* whereas these others involve *voice* communication. Since the public switched telephone network (PSTN) is entirely *indifferent* as to whether it is carrying voice or data traffic (i.e., there is no difference in the manner in which the call is handled or in its cost), there is no basis for any price discrimination on the basis of the content of an individual call, i.e., voice vs. data.

1 ISP-bound dial-up calls terminate at the ISP's modem, not at Internet websites; in fact, as
2 Mr. Goldstein explains, more than 90% of the time that an Internet user is connected to his
3 or her ISP, there is not even any data flow beyond the ISP actually taking place. Hence,
4 even under a "one call" theory, the call would still be terminated at the ISP's modem bank,
5 within the originating caller's local calling area, in excess of 90% of the total time that the
6 call is "up." As the DC Court of Appeals recognized in its March ruling to remand the
7 FCC's Declaratory Ruling on ISP-bound traffic, ISPs are users of telecommunications
8 services, similar to other businesses that utilize inbound calling services, such as call
9 answering bureaus, mail-order shopping services, and other telecommunications-intensive
10 business enterprises.
11
12 Q. ILECs have argued that the ISP, not the end user, is the "cost-causer" in the case of ISP-
13 bound calls. Do you agree?
14
15 A. No. Under that theory, *any* business that advertises its telephone number encouraging
16 prospective customers to call would be considered to have "caused" the incoming call to be
17 placed. The originating caller is the cost-causer because the originating caller is exercising
18 free will in deciding to place the call. The ISP is offering Internet access service, and is
19 providing that service via dial-up telephone calls placed to it by its customers. That is no
20 different than any other business that engages in transactions or provides services over the
21 phone.
22
23 The exception to this is found in the case of 800-type services, where the called party has
24 explicitly decided that it will pay for the cost of the calls it receives. However, 800 service

is an option that is selected by a particular firm to encourage calls that might not otherwise take place if the charge were imposed upon the caller.

Under the sent-paid framework, explicit reciprocal compensation payments must be made for call termination when traffic flows are significantly out of balance.

Q. ILECs typically portray their reciprocal compensation payments to CLCs for the termination of ISP-bound traffic originated by ILEC end users as if they represent revenue losses, which would be avoided if traffic between the ILEC and CLC were more nearly equal in volume in both directions. Is this a reasonable characterization?

A. I would certainly agree that the loss of call termination business constitutes a *competitive loss* to the incumbent. A careful examination of the circumstances associated with this particular competitive loss will, however, reveal that it resulted from mis-assessments of the market and mispricing of services by the incumbents, and is certainly not the "fault" of CLCs who made entirely legitimate market responses to the pricing signals that they were receiving from Pacific and GTEC.

Q. Please explain.

A. Call origination and call termination are separable activities each one of which confronts its own set of market conditions. There is nothing in the 1996 federal *Telecommunications Act* nor in any other competitive telecom policy framework of which I am aware that requires that CLCs become mere clones of the incumbents, that the nature and mix of the services they provide mirror those offered by the ILECs. In a competitive local telecom market,

1 carriers can compete for call termination business without having to necessarily compete for
2 the corresponding call origination business. If a CLC is able to furnish the call termination
3 service more efficiently than the ILEC, the goals of competition are served when customers
4 requiring this service are induced to switch from the ILEC to a CLC.
5
6 Under a system of explicit reciprocal compensation payments and as long as the ILEC's
7 rates are based upon the ILEC's costs, there is no logical connection between the traffic flow
8 and associated compensation due in one direction, and the traffic flow and compensation
9 that might occur in the reverse direction. Assuming that ISP-bound calls are subject to
10 reciprocal compensation at all (which is taken up below), then in each direction,
11 compensation must be paid for the work performed by the terminating carrier C and thus, the
12 volume of traffic that may or may not flow in the reverse direction is irrelevant.
13
14 Q. Has Pacific itself supported the application of explicit reciprocal compensation payments for
15 termination of local traffic in the past?
16
17 A. Yes, it has. In April 1995, Pacific submitted a proposal to the Commission for a
18 "Competition to the Core" plan for opening its local markets to competitive entry.[19] A key
19 feature of Pacific's proposal at that time was that network interconnection for the exchange
20 of local traffic between carriers would be accompanied by explicit cost-based reciprocal
21 compensation payments:
22
23 New entrants have asked that interconnection arrangements be established for comple-

19. *See* April 3, 1995 Letter from Pacific Vice President Regulatory, J.A. Gouldner to CPUC President Daniel William Fessler, provided as Figure 1 of my Exhibit.

> tion of local calls between LECs with appropriate coverage of the costs of the use of each network. The Plan establishes the capability to exchange local calling between customers of two or more local carriers with reciprocal compensation arrangements between the carriers. The price for interconnection will be equal to switched access charges, about 1.4 cents per minute, which is among the lowest in the country. new (sic) entrants should establish their interconnection prices based on their costs.[20]

While the extension of switched access rate levels to local interconnection is inappropriate (and was not adopted by the Commission), it would be a striking and unexplained reversal of its position were Pacific to propose the adoption of a bill and keep regime for termination of ISP-bound local traffic.

In opposing "bill-and-keep," Pacific and other ILECs apparently believed that they would be net recipients of interchanged traffic, i.e., that there would be more traffic flowing from CLCs to ILECs than from ILECs to CLCs. That determination was a business judgment that appears to have been wrong. In assessing the market outcome, Pacific appears to have failed to recognize the fact that (a) call origination and call termination are different services, and that (b) CLCs could be selective in the mix of customers they elected to pursue and to serve. When CLCs faced much higher reciprocal compensation rates than the CLCs themselves proposed in negotiations, they elected to "sell" rather than to "buy" at that price, and solicited customers (including ISPs) with relatively high inward calling requirements. Thus, ILECs such as Pacific lost the opportunity to serve these high-volume call termination customers by mispricing their services, and it would be entirely inappropriate for the Commission to now engage in what amounts to nothing short of a bail-out of those ILEC errors. In competitive markets, competitors live or die by their own business judgments and

20. *Id.*, at page 5.

1 decisions, and it is not the role of regulators to backstop these market choices by after-the-
2 fact protective measures.
3
4 Q. Was there anything unreasonable or inappropriate about this deliberate attempt on the part of
5 some CLCs to seek out particular types of customers with unusually high inward calling
6 needs and thereby to become net recipients of terminating traffic?
7
8 A. No, not at all. In fact, this outcome is fully consistent with the proper functioning of a
9 competitive market. In this instance, the ILEC, as the dominant player in the market,
10 established and held out a price at which it was willing to either buy or sell call termination
11 service. If a competitor was able to furnish the same service at a lower cost than the price
12 signals it was receiving from the dominant ILEC, both the CLC and the economy overall are
13 well served by the CLC pursuing this market opportunity.
14
15 In dictating the reciprocal compensation rate, the ILEC was engaging in a form of economic
16 negotiation sometimes described as "I cut, you choose/you cut, I choose." Suppose that Bob
17 and Bill are trying to evenly divide a chocolate cake between them. Under "I cut, you
18 choose," Bob, for example, would cut the cake into what he believed were two equal pieces,
19 and Bill would then have the right to select which piece he would get. Obviously, in such a
20 process, Bob has a powerful incentive to make his slice as close to a 50/50 split as possible
21 since, if the two pieces are unequal, Bill will then have the right to select the larger piece.
22 Note also that under this type of negotiation arrangement, it doesn't actually matter which
23 party does the slicing and which does the choosing, since both would share the identical
24 incentive no matter which role each assumes.
25

1 The establishment of a symmetric reciprocal compensation rate by the ILEC that the CLC is
2 then free to either pay to the ILEC or have the ILEC pay to it should provide the ILEC with
3 precisely the same incentive to "get it right" as Bob has in slicing the chocolate cake. So it
4 is therefore entirely reasonable and correct to assume that in setting their existing reciprocal
5 compensation rates, Pacific and GTEC attempted to get as close to their (and their
6 competitors') actual costs as possible, since the risk of being wrong (too high or too low)
7 would necessarily cost these companies money. In fact, Pacific and GTEC would have
8 deliberately set their price in excess of cost only if they believed that CLCs would be unable
9 to achieve a net traffic flow in their favor. That error would be in the nature of a bad
10 business judgment which, like other management decisions, firms must live with in
11 competitive market environments. Of course, in the instant situation, it would appear that
12 both Pacific and GTEC engaged in precisely this market behavior, mistakenly believing that
13 CLCs could not be so selective as to focus disproportionately upon customers with high-
14 volume inward calling requirements.
15
16 Q. But what if the ILECs had deliberately overstated their costs and thereby quoted excessive
17 prices for call terminations?
18
19 A. In setting their call termination reciprocal compensation rates, the ILECs were well aware
20 that the price each established would apply in both directions, and therefore should have had
21 the incentive to set a price level that was at or very close to the actual costs involved in
22 providing call termination functions. But if, for example, Pacific or GTEC had deliberately
23 established an excessive price, that action would necessarily have been driven by an
24 erroneous business judgment as to competitors' ability to be selective in seeking out and
25 serving customers with high inward calling needs. In competitive markets, there are often

serious consequences of mispricing one's product or service, and competitors are certainly entitled to take full advantage of the conditions they confront in developing their business strategies and in defining the market segments that they will serve.

In the instant situation, however, the specific reciprocal compensation rates that had been dictated by the ILECs were proffered as being cost-based; indeed, they were *required* by law and by regulation to be cost-based. Section 252(d)(2) of the *Telecommunications Act of 1996* sets forth the specific relationship between the reciprocal compensation rate and the underlying costs of terminating calls:

> Section 252(d)(2) CHARGES FOR TRANSPORT AND TERMINATION OF TRAFFIC-
>
> (A) IN GENERAL- For the purposes of compliance by an incumbent local exchange carrier with section 251(b)(5), a State commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless—
>
> (i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier; and
>
> (ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.

It was thus entirely reasonable and appropriate, then, for regulators and for competitors to rely upon Pacific's and GTEC's representations with respect to their costs for terminating local traffic. When ILECs attempt to introduce "new" cost studies in support of a changed agenda that produce dramatically different results than those proffered by the very same companies a few years ago, the new results must necessarily be viewed with extreme skepticism.

1 Even worse, some ILECs are now attempting to manufacture a distinction between traffic
2 that CLCs hand off to them and traffic that they hand off to CLCs, and based thereon to
3 establish *differential* prices whose effect is to eliminate the existing symmetry in the
4 treatment of reciprocal compensation. Specifically, ILECs are seeking to differentiate
5 between the cost associated with traffic that CLCs terminate to them and the cost associated
6 with traffic that they terminate to CLCs.[21] Not surprisingly, the ILECs' new "cost studies"
7 produce dramatically higher values for the former than for the latter. Both of these results
8 purport to be based upon these companies' own costs, but in fact as I explain elsewhere in
9 my testimony, there is substantial reason to expect that, all else being equal, CLC costs may
10 actually be higher than an ILEC's costs for providing the equivalent call termination service.
11
12 **Under an explicit reciprocal compensation regime, the appropriate compensation for calls**
13 **terminated by one of two interconnected carriers is entirely independent from the volume**
14 **of traffic and associated compensation flowing in the reverse direction.**
15
16 Q. ILECs often portray situations in which traffic flows are significantly out of balance as
17 somehow inconsistent with the intent of opening local markets to competition, and argue that
18 CLCs with heavily-lopsided inbound traffic are somehow taking advantage of a "loophole" in
19 the ILEC's tariff. Do you agree with such representations?
20
21 No. As I have noted above, in a competitive local telecom market, carriers can compete for
22 call termination business and, if one carrier is able to furnish the call termination service
23

21. See, for example, the public version of the "Cost Analysis for Internet-Bound Traffic" which SWBT filed in Texas PUC Docket No. 21982.

more efficiently than the ILEC, the goals of competition are served when customers are induced to switch from the ILEC to a CLC for this service.

Under a system of explicit reciprocal compensation payments *and as long as the ILEC's rates are based upon the ILEC's costs*, there is no logical connection between the traffic flow and associated compensation due in one direction, and the traffic flow and compensation that might occur in the reverse direction. In fact, if the symmetric reciprocal compensation rate is set at the ILEC's cost, then only those CLCs that are able to provide call termination services more efficiently than the ILEC will elect to engage is this particular market segment. On the other hand, inasmuch as the *Telecommunications Act* and resulting FCC regulations *required* that the reciprocal compensation rate be set *at the ILEC's cost*, CLCs acted reasonably in assuming that the rate confronting them in their respective interconnection agreements did in fact represent the ILEC's cost. If the CLC found that it was able to furnish high-volume call termination services at a lower cost, then it acted legitimately in making the necessary investment in switching and related equipment and in developing a business plan premised on the reciprocal compensation price that was dictated to it by the ILEC. The volume of traffic that may or may not flow in the reverse direction - i.e., from the CLC to the ILEC, is irrelevant.

ECONOMIC AND TECHNICAL CHARACTERISTICS OF ISP-BOUND CALLS AND OTHER CONCENTRATED INBOUND TRAFFIC[22]

Internet Services Provider (ISP)-bound traffic is technically indistinguishable from other in-bound data and voice local traffic, and should not be singled out for discriminatory treatment with respect to how CLCs are compensated for terminating such traffic.

Q. Is there any technical basis for differentiating ISP-bound and "ordinary" traffic, as Pacific argues should be done in this case?

A. No, there is not. Fundamentally, the cost characteristics of local traffic do not depend upon the *content* of the call or the purpose or use motivating the call (e.g., to connect to and transmit data to/from an ISP vs. a voice call to a friend or to a nearby retail or service establishment). The factors affecting the cost of processing a call through an ILEC's local network, or of processing a call from an ILEC's customer to the point of interconnection with a CLC, depend solely upon the PSTN resources that are utilized by the call C primarily switching and transport C which are affected, to varying degrees, by the call's duration, the number of switching operations involved in processing the call, the distance over which the call travels, and the extent to which the use of these resources affects the carriers' peak-demand capacity at the time that the call is in progress.

For this reason, calls to ISP modem lines that are connected to the PSTN within the calling party's local calling area are technically indistinguishable from "ordinary" end-user to end-user local calls, whether completed entirely on the ILEC's network or involving a hand-off

22. This section of my testimony responds to Factual Issues 1-4 as set forth in the May 2, 2000 Assigned Commissioner's Ruling.

1 by the ILEC to a CLC for termination.
2 There is no technical difference between the way ordinary end-user to end-user calls are
3 handled vs. the manner in which an end-user-to-ISP call is handled where the call is origi-
4 nated by an ILEC customer and terminated to a CLC customer. Routing a call from an
5 originating end user to an ISP's incoming modem line is technically identical to routing a
6 call from the same end user to any local telephone number served by the incumbent or other
7 LEC. As shown in Figures 1 and 2, the switch serving the recipient end user's line receives
8 the incoming call on a trunk from another switch (either another end office switch or a
9 tandem switch), identifies the appropriate line to "ring" (i.e., the line on which to signal an
10 incoming call), and then proceeds to generate a ringing signal to the recipient access line.
11 When the incoming call is answered (whether by a person picking up a handset, an
12 answering or fax machine going "off-hook" in response to the ringing signal, or by a modem
13 automatically going "off-hook") the ringing signal is immediately terminated and a direct
14 (circuit-switched) connection between the calling and called parties is established. This
15 same sequence of events takes place when someone in San Francisco or a nearby suburb
16 calls the Commission, his or her local bank, or places any other local call, *including a call to*
17 *an ISP whose number is within the originating party's local calling area.* In terms of the
18 use of local network resources, it is also essentially the same thing that happens when an
19 incoming long distance call reaches the switch serving the called customer. On a technical
20 basis, there is no reason to distinguish among any of these types of PSTN traffic. While
21 some ILECs have argued that ISP-bound calls are different because they do not terminate at
22 the ISP's modem bank but instead terminate somewhere "in" the Internet, Mr. Goldstein's
23 direct testimony explains in detail why the ISP's Internet-related functions beyond the
24 modem at which the call terminates are irrelevant to the definition and treatment of ISP-
25 bound calls.