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Ms. Blanca S. Bayo, Director
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Florida Public Service Commission
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Tallahassee, Florida 32399-0850

Re: Docket No. 000075-TP

Dear Ms. Bayo:

Enclosed herewith for filing in the above-referenced docket on behalf of A&T Communications of the Southern Inc., TCG of South Florida, Global NAPS, Inc., MediaOne Florida Telecommunications, Inc., Time Warner Telecom of Florida, LP, Florida Cable Telecommunications Association, Inc., and the Florida Competitive Carriers Association are the following documents:

1. Original and fifteen copies of the Prefiled Direct Testimony of Lee L. Selwyn.

Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the copy to me.

Thank you for your assistance with this filing.

Sincerely,

Kenneth A. Hoffman

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I HEREBY CERTIFY that a copy of the foregoing was furnished by U. S. Mail to the following this 12th day of March, 2001:

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By: _____
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Before the

# STATE OF FLORIDA
# PUBLIC SERVICE COMMISSION

| |
|---|
| Re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996 |

**Docket No. 000075-TP – Phase II**

Direct Testimony

of

## LEE L. SELWYN

on behalf of

AT&T Communications of the Southern States, Inc.
TCG of South Florida
Global NAPS, Inc.
MediaOne Florida Telecommunications, Inc.
Time Warner Telecom of Florida, LP
Florida Cable Telecommunications Association, Inc.
and the
Florida Competitive Carriers Association

March 12, 2001

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3 **Introduction**

4

5 Q. Please state your name, position and business address.

6

7 A. My name is Lee L. Selwyn; my business address is One Washington Mall,
8 Boston, Massachusetts 02108. I am President of Economics and Technology,
9 Inc.

10

11 Q. Are you the same Lee L. Selwyn who submitted Direct Testimony in this
12 proceeding on December 1, 2000?

13

14 A. Yes, I am.

15

16 Q. What is the purpose of the additional testimony that you are offering at this
17 time?

18

19 A. This testimony addresses Issues Number 11 through 15 and 17 - 18 that the
20 Commission has designated for consideration in this phase of this proceeding.

21

**The ILECs continue to reflect their long history as franchise monopoly service providers in the massive scale and ubiquity of their local exchange networks, whereas ALECs tend to design their networks to more closely accommodate current and anticipated demand in an evolutionary, flexible manner.**

*Issue 11. What types of local network architectures are currently employed by ILECs and ALECs, and what factors affect their choice of architecture? (Informational issue)*

Q. Are there major differences between the architectural features of ILEC and ALEC networks?

A. Yes. I have already described the major architectural features of ILEC and ALEC networks at pages 54-59 of my December 1, 2000 Direct Testimony, in the context of explaining the reasons why ILEC and ALEC networks tend to have different cost characteristics. In addition, pages 39-46 of that testimony supplied more detail concerning how ILEC and ALEC networks process calls, in order to demonstrate that an ISP-bound call generally is not handled differently from any other type of locally-rated call completed by either an ILEC or an ALEC.

Q. Is a LEC's choice of network architectures influenced by the level of traffic volumes that it serves or anticipates serving?

A. Yes, of course. The network design choices of the ALECs are particularly sensitive to anticipated demand conditions. To understand this, we must first consider the factors that drove the development of the ILEC networks. The design of the ILECs' contemporary networks generally reflects their traditional role as monopoly service providers serving all potential telephone service subscribers within their assigned operating areas. Under those conditions, the efficient network design tended to require an essentially ubiquitous deployment of distribution facilities, including distribution cables placed down virtually every street and extending to every business office park, high-rise building, and the like – whereupon traffic from those facilities was aggregated into higher-capacity feeder cables and transported back to a relatively high number of local, end-office switches and (other than intra-switch calls) was switched onto the interoffice transmission network for the transport of each call to its intended destination. Because ILECs serve close to 100% of the local service market, there is in each community sufficient demand to support at least one, and often several, central office switches or "remote service units" ("RSUs"). Consequently, the geographic areas served by individual central office switches (or wire centers, in cases where switches for several "exchanges" have been consolidated) tend to be relatively small and the lengths of subscriber loops connecting the wire center with the customer's premises tend to be relatively short.

In contrast, a typical ALEC serves only a small fraction of the total customer base in any single community. Because the demand is so much smaller than for ILEC services, it would be extremely inefficient and costly for an ALEC to deploy a switch or even an RSU in each local community it wishes to serve. Instead, an ALEC will typically use one switch to serve a broad geographic area, providing transport *on the line side of the switch* where the ILEC would normally provide such transport *on the trunk side of its individual end office switches.* An ALEC will design its network to accommodate the actual locations of its customers and their actual demand characteristics under an architecture that can be expanded in a flexible manner as demand for the ALEC's services grows. At pages 58-59 of my earlier Direct Testimony, I described in more detail how an ALEC could use a combination of leased unbundled network elements (UNEs), high-capacity transport facilities, and switching resources to accommodate this type of service-provisioning arrangement.

**An ALEC should be compensated at the ILEC's tandem interconnection rate when the ALEC network provides transport and termination of ILEC-originated traffic over a geographic area comparable to that served by the ILEC's tandem switches, or otherwise performs typical tandem functions including traffic aggregation over a wide geographic area.**

*Issue 12: Pursuant to the Act and FCC's rules and orders:*

*(a) Under what condition(s), if any, is an ALEC entitled to be compensated at the ILEC's tandem interconnection rate?*

*(b) Under either a one-prong test or two-prong test:*

*(i) What is "similar functionality?"*

*(ii) What is "comparable geographic area?"*

Q. What criteria has the FCC established concerning when an ALEC is entitled to be compensated at the ILEC's tandem interconnection rate?

A. In the Local Competition Order, the FCC set forth two criteria governing when an ALEC can charge the ILEC's tandem interconnection rate for transport and termination of traffic delivered by an ILEC for completion by the ALEC. The FCC concluded that "where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate."[1] This provision (with slightly different terminology) was adopted explicitly in the FCC rules governing reciprocal compensation.[2] An ILEC network will typically consist of a hierarchy of switches, with the tandem providing connectivity to and among all of the end office switches that subtend it. Thus, when an ALEC establishes a single point of interconnection at the ILEC tandem, it obtains connectivity to the entire array of end office switches that the tandem serves. An ALEC, on the other hand, would typically deploy only one switching

1. Local Competition Order, at para. 1090.

2. 47 CFR 51.711(a)(3) reads: "Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate."

1 entity to serve a geographic area that is roughly comparable to the entire
2 geographic area that is served by the ILEC tandem. Thus, by establishing a
3 single point of interconnection at that ALEC switch, the ILEC can obtain
4 geographic connectivity that is fully comparable to the geographic coverage
5 that an ALEC gets when it connects at an ILEC tandem.
6
7 Q. Is there an alternative to basing eligibility for tandem treatment solely on the
8 switch's geographic coverage?
9
10 A. Yes. In addition, the FCC directed state regulators to "consider whether new
11 technologies (e.g., fiber ring or wireless networks) perform functions similar
12 to those performed by the incumbent LEC's tandem switch and thus, whether
13 some or all calls terminating on the new entrant's network should be priced
14 the same as the sum of transport and termination via the incumbent LEC's
15 tandem switch."[3]
16
17 Q. How should this Commission interpret the term "similar functionality" in this
18 context?
19
20 A. In this context, "similar functionality" must refer to the degree to which the
21 ALEC network is able to perform the functions that are typically performed

3. Local Competition Order, at para. 1090.

by a tandem switch in an ILEC network. In an ILEC network architecture, a tandem switch typically performs the following functions:

- It aggregates traffic originated from/terminated to multiple exchange areas, so that traffic between customers calling outside of their own local exchange can be switched and transported efficiently;

- It routes IXC-bound traffic directly to the interexchange carrier handling the call;

- It serves as the interconnection point for operator services facilities, so that calls requiring operator services can be routed in aggregate to the operator services bureau(s);

- It measures and records traffic detail for billing purposes.

As long as an ALEC's network provides these functions, then it is providing "similar functionality," whether or not the network includes an actual tandem switch. The FCC adopted the "similar functionality" criterion precisely in order to allow for the possibility that some ALECs would *not* deploy tandem switches, or otherwise design their networks in the same manner as do ILECs, and yet preserve the ability of ALECs to be compensated (via

reciprocal compensation arrangements) on a par with ILECs as long as their networks provide the same kind of call transport and termination services.

Q. Does this type of comparison in terms of functional equivalence also underlie the FCC's "comparable geographic area" criterion?

A. Yes, it does. Accordingly, in this context, the term "comparable geographic area"should be defined as the degree to which the geographic area in which the ALEC network affords call transport and termination for ILEC-originated traffic is similar to the geographic area in which the ILEC's tandem switch provides transport and termination.

Q. Why is comparison of the geographic coverage area appropriate for determining whether ALEC-supplied transport and termination qualifies for the compensation at the ILEC's tandem switching rate?

A. As with the "similar functionality" criterion, comparison in terms of geographic coverage area is appropriate because it takes into account potential differences between the architectures of ILEC and ALEC networks. When a call is terminated to an ILEC, the point of interconnection (POI) where the handoff of traffic occurs is typically at a tandem switch, from which the ILEC can route the call to individual end offices and then on to the ultimate recipient.

However, consider what happens when an ALEC deploys a network that contains only one or at most a handful of central offices covering a wide geographic area. In that case, the transport function is carried out on the "line side" of the switch, sometimes over considerable distances, until it reaches its final destination. Nonetheless, by delivering the traffic to the POI, the originating carrier can have the call terminated to anywhere within the area served by its switch, since the ALEC's single switch may provide the same geographic coverage as a dozen or more ILEC switches. In those circumstances, the ALEC may have adopted a network design that is quite different from that of an ILEC serving the same territory, but that is most efficient given the ALEC's size and the technology available to it at the time that its network was initially laid out. Moreover, the ALEC network would provide the same transport and termination as does an ILEC network containing a tandem. Accordingly, the ALEC's choice of network design should have no effect, one way or the other, upon the price that the ILEC pays the ALEC for call terminations. As long as the ALEC provides the same tandem functionality and does so over a geographic area that is roughly comparable to that served by the ILEC, the ALEC should properly be compensated at the tandem rate for reciprocal compensation purposes.

Note, however, that there is no requirement that the geographic area being served by the ALEC's switch be *identical* to the area subtending the ILEC tandem, because there is no requirement that the ALEC's service area be

1 identical to the ILEC's service area. The relevant test is whether the ALEC's
2 network is designed so that the ILEC (and any other carriers) can establish a
3 single point of interconnection with the ALEC that will offer connectivity to
4 all of the communities that the ALEC serves out of that switch.
5
6 Q. What factors should the Commission consider in determining when an ALEC
7 is entitled to the tandem rate for traffic it terminates, as opposed to the end
8 office rate?
9
10 A. As I understand the FCC's rules and rulings, the Commission should consider
11 the geographic coverage area of an ALEC's switch, or the particular
12 functionality offered by interconnection at that switch, in determining
13 whether an ALEC should receive the tandem rate or an end office rate.
14
15 Q. On what do you base this view?
16
17 A. I start with what the FCC has itself said. The FCC confronted this issue in
18 1996 when it was developing its rules and policies for the administration of
19 the then-new 1996 Act. The FCC realized, correctly, that a new entrant
20 constructing a network would not likely find it sensible to simply copy the
21 network architecture of the incumbent. A classic example was a competitive
22 access provider, or CAP, that might have an extensive fiber network
23 throughout much of a LATA, but control access to that fiber network via a

single switch. If the CAP becomes an ALEC using its existing network, the combination of switch-plus-fiber-network performs essentially the same functions, and covers essentially the same area, as an ILEC tandem switch. And the FCC correctly concluded that, as long as the ALEC switch has these attributes, the ALEC should receive the tandem rate:

Here is what the FCC said, in its *Local Competition Order* from August 1996, at paragraph 1090. The FCC first considered the situation as it related to a traditional tandem-end office architecture:

> We find that the 'additional costs' incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending on whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to the end-office switch.

But the FCC did not stop there. To the contrary, it expressly recognized that an ALEC might have a network that, in effect, does the same thing that the ILEC's network does, but does it in a different way. Paragraph 1090 of the *Local Competition Order* continues:

> In such event [that is, if a state establishes a separate tandem rate for the ILEC], states shall also consider whether new technologies (*e.g.*, fiber ring or wireless networks) perform functions similar to those performed by an [ILEC's] tandem switch and thus, whether some or all calls terminating on the new entrant's network should be priced at the sum of transport and termination via the [ILEC's] tandem switch. Where the interconnecting carrier's switch serves a

> geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate.

Q. What do you understand this discussion from the FCC to imply for state commissions in determining what rate to apply to ILEC-to-ALEC traffic?

A. One rule is simple. If an ALEC's switch covers an area of essentially the same size as that served by an ILEC's tandem switch, then the tandem rate applies to ILEC-to-ALEC traffic. If the geographic reach of the ALEC's switch is not identical to that of the ILEC tandem but still affords the ILEC the ability to reach all of subscribers served by the ALEC in that same general area via a single point of interconnection, the tandem rate will also apply. Beyond that, however, the FCC took care not to limit its rules to the specific technical and economic arrangements that were in place in August 1996. As a result, the FCC directed states to "consider whether new technologies ... *perform functions similar to*" those performed by ILEC tandems. The FCC did not specify what such functions might be, but it did seem to offer the possibility that such matters could be considered where the "geographic area" test is not exactly met. Based upon my experience in the industry, I would suggest that capabilities such as billing and recording, as well as the convenience offered by having a single point of interconnection for an entire network, constitute such functions. But the FCC's ruling by its nature precludes creating an all-inclusive list of what such functions might

be. Instead, where the geographic area test is not exactly met, ALECs must be permitted to explain how the actual functionalities of their switches and network architectures are sufficiently "similar to" the traditional ILEC tandem-end-office architecture to warrant receiving the higher tandem rate for incoming calls.

Q. Doesn't this create a situation where it is possible for an ALEC to get a higher tandem rate even though the costs it incurs to perform the "similar" functionalities are actually below the costs the ILEC incurs?

A. Not only is that possible, it is a good thing if it does happen. One of the purposes of establishing the symmetry rule is that, by tying an ALEC's compensation to rates based upon the ILEC's costs, the ALEC obtains a strong incentive to "minimize its own costs of termination, because its termination revenues do not vary directly with changes in its own costs."[4] Once that incentive is created — and creating it is clearly a good idea from a public policy perspective — one would expect that one or more innovative ALECs would figure out ways to perform similar functions at less cost. It would obliterate that incentive if the effect of a CLEC becoming more efficient is a loss in revenues designed to offset the decline in costs.

4. *Local Competition Order,* at para. 1086.

**An ALEC has the right to interconnect with the ILEC at any technically feasible point on the ILEC's network, and is not required to establish more than one Point of Interconnection in any LATA in order to obtain LATA-wide coverage via that interconnection arrangement.**

*Issue 13. How should a "local calling area" be defined, for purposes of determining the applicability of reciprocal compensation?*

Q. Dr. Selwyn, Issue 13 asks the parties to provide the Commission with input as to how a "local calling area" should be defined for purposes of determining the applicability of reciprocal compensation. What, exactly, is a "local calling area?"

A. A "local calling area" generally consists of one or more individual "exchanges" (sometimes referred to as "rate centers") to which customers may place calls without a toll charge ("outward local calling area") or from which customers may receive incoming calls without the calling party being subject to a toll charge for such calls ("inward local calling area"). An "exchange" or "rate center" is an administrative definition of a geographic area within which all customers receive identical rating and rate treatment with respect to both outgoing and incoming calls. In non-metropolitan areas, an exchange usually corresponds to the area served by a single "wire center" or central office switch. In metropolitan areas, an "exchange" may include an area served by more than one "wire center" or central office switch.

1 The precise definition of a "local calling area" with respect to BellSouth in
2 Florida is a bit more complex. BellSouth's tariffs specify Local Calling
3 Areas, which include Extended Area Service (EAS) exchanges and Extended
4 Calling Service (ECS) exchanges. Calls placed to points located within the
5 EAS exchanges are provided without additional charge to Flat Rate and
6 Message Rate Service subscribers (both residential and business customers).
7 For example, the Local Calling Area for the West Palm Beach exchange
8 includes, in addition to West Palm Beach, the nearby EAS exchanges of
9 Boynton Beach and Jupiter, which can be accessed without incurring any
10 additional charges.[5] Several more exchanges classified as "ECS," namely
11 Belle Glade, Boca Raton, Delray Beach, Hobe Sound, Jensen Beach,
12 Pahokee, Port St. Lucie, and Stuart,[6] can be accessed from the West Palm
13 Beach exchange for an untimed per-message charge of 25 cents.[7] For
14 purposes of jurisdictional separations and application of intrastate switched
15 access charges, these "25 cent" calls are also classified as "local." Hence, for
16 BellSouth Florida, one could interpret the "local calling area" as embracing
17 those additional ECS exchanges. For purposes of our present discussion,
18 however, I will use the term "local calling area" to refer to the local calling

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5. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff, Section A.3, page 16 (revision 4), effective October 20, 1997.

6. *Id.*

7. *Id.*, Section A3, page 42 (first revision), effective October 7, 1997.

area in which no such additional per-call charges apply, i.e., the home exchange and EAS exchanges.

Q. Are "outward local calling areas" and "inward local calling areas" always the same, with respect to the specific exchanges included within each?

A. Usually, but not necessarily. A customer in exchange "A" may be able to call customers in exchanges "B," "C," "D" and "E" on a local call basis (i.e., without a toll charge) but the outward local calling area for exchange "D," for example, might not necessarily include exchange "A." In that circumstance, a customer in "A" could call a customer in "D" without paying a toll charge, but a customer in "D" calling a customer in "A" would be subject to a toll charge for the call. Thus, in this example, the outward local calling area for exchange "A" would be more extensive than its inward local calling area.

Q. How does the telephone company determine, for any given call, whether it is a local call or if a toll charge (or, in the case of BellSouth, a 25 cent message charge) applies?

A. The area code (NPA) and central office code (NXX) of a telephone number (NPA-NXX) are, with limited exceptions, mapped specifically to a particular exchange or rate center. For example, the 850-224 NPA-NXX uniquely specifies the Tallahassee exchange. There may be, and (particularly for urban

areas usually are) more than one NPA-NXX code associated with an exchange; since the onset of local telephone service competition, some of the NPA-NXX codes may be "held" by the incumbent LEC while others may be assigned to ("held by") one or more ALECs. When a call is placed, the dialed number is examined by the originating central office switch to determine whether to route the call directly to the central office serving the dialed NPA-NXX or whether to route the call through an intermediate switching entity known as a tandem switch. The central office thus "translates" the dialed number into a routing for the call. It may also determine, through a lookup in a reference table maintained in the switch itself, whether, based upon the dialed NPA-NXX code, the call is to be rated as "local" or "toll." In some cases, this determination may affect the dialing sequence that the customer is required to use in order to place the call.[8] The rating of the call *for billing purposes* is also based upon the dialed NPA-NXX, with the billing software looking to reference tables for the treatment and applicable rate for a call originated at one NPA-NXX and terminated at another NPA-NXX.[9]

---

8. Generally, local calls placed to NXX codes within the calling party's NPA may be dialed on a 7-digit basis, whereas toll calls, even those placed to NXX codes that are also within the calling party's NPA, will typically require an 11-digit dialing pattern, consisting of 1+NPA+seven digit telephone number.

9. The dialed number is also used to make several other routing and rating determinations. First, it is used to determine whether or not the call is to a "toll-free" Service Access Code (800, 888, 877, 866) in which case the call must be processed in a specific way so as to assure that it is routed to the interexchange

(continued...)

1 Q. What exchanges are typically included within a local calling area?

2

3 A. Traditionally, local calling areas have consisted of the subscriber's "home"
4 exchange, adjacent (contiguous) exchanges and, in some cases, nearby
5 exchanges that are not contiguous with the calling party's exchange.
6 However, that situation is currently undergoing substantial changes. For
7 example, wireless carriers typically offer a larger local calling area than their
8 wireline counterparts and, in some instances, include the entire United States
9 within the wireless subscriber's local calling area, and ALECs may compete
10 directly with the ILEC and with each other by offering customers local
11 calling areas that differ from that being offered by the ILEC.

12

---

9. (...continued)
carrier (IXC) selected by the toll-free service *customer* rather than the calling party. If the call is not a toll-free call (i.e., it is a "sent-paid" call), then the dialed NPA-NXX is used to determine whether the call is intraLATA or interLATA (the latter always requiring a hand-off to the IXC designated by the calling party and the former requiring such a hand-off where the calling party has designated a carrier other than the ILEC as his or her "presubscribed interexchange carrier" ("PIC") or where a 101-XXXX carrier access code has been dialed by the calling party). The dialed NPA-NXX is also used to identify the *jurisdiction* of the call (intrastate vs. interstate). Some toll tariffs, including the intraLATA toll tariff in use by BellSouth in Florida, still apply a *distance-sensitive* charge for toll calls (see General Subscriber Services Tariff, Section A.18, page 5, third revision, effective July 20, 2000). In this case, an additional translation is required in the preparation of monthly bills, wherein the dialed NPA-NXX is associated with geographical location coordinates (known as V-H coordinates) that, together with the V-H coordinate of the calling party, are used to calculate the distance over which the call will travel from the "originating rate center" to the "terminating rate center."

In fact, the extent of the local calling area is itself becoming something that some ALECs see as an opportunity to differentiate their products from those being offered by the ILEC. An ALEC might, for example, offer its customers a larger local calling area than that being offered by the ILEC as a means for attracting customers or, alternatively, might choose to offer a *smaller* local calling area than the ILEC's service provides, at a correspondingly lower price. ILECs themselves are also changing the definition of "local calling area" by introducing optional calling plans that provide for extended area local calling including, in some cases, all exchanges within the subscriber's LATA.

Q. Is it appropriate for competing carriers to adopt local calling area definitions that differ from those of the ILEC?

A. Indeed it is. One of the primary public policy goals of introducing competition into the local telecommunications market has been specifically to encourage and stimulate innovation in the nature of the services that are being offered. ALECs should not be limited to competing solely with respect to *price*, nor should they be expected to become mere "clones" of the ILEC with respect to the services they offer. For example, an ALEC might offer a local service "package" that includes one or more vertical service features, such as call waiting, three-way calling, and/or caller ID, features that ILECs typically offer separately from the dial tone access line, at often substantial additional

1 charge. Newer wireless (PCS) carriers, competing against the incumbent 800
2 mHz cellular service providers, began to offer such feature bundles almost
3 from the outset of their operations, frequently forcing the incumbent cellular
4 carriers to mimic their service offerings with similar "packages" of their
5 own.[10] Prior to the entry of PCS competition, cellular carriers offered very
6 limited local calling areas (often replicating precisely the local calling area
7 defined by the ILEC for the exchange in which a particular cell phone was
8 rated), and also imposed high "roaming" charges for outward calls that were
9 originated outside of the customers "home" service territory (even where the
10 call was originated from another service territory controlled by the same
11 cellular carrier). As PCS carriers came into the market, they began to offer
12 extended, sometimes *nationwide*, local calling, and have also introduced
13 calling plans that eliminate most or all roaming charges.
14
15 Q. Will this happen in the landline local market as well?
16
17 A. There is every reason to expect that it will, over time. This is not to say that
18 establishing larger local calling areas – whether inward or outward -- will
19 necessarily be the optimal competitive strategy for all ALECs, or even for the
20 ILEC. One of the effects of decades of tight regulation of ILEC local service
21 plans has been that we don't really know what combinations of price,

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10. AT&T Wireless Services and Sprint PCS, for example, typically include Call Waiting, Three-Way Calling, Call Forwarding, Caller ID, and Voice Mail as integral parts of their wireless service offerings, at no additional charge.

1 inward/outward calling areas, and other features will appeal to different
2 segments of the market. So, for an initial period – in fact, likely lasting for
3 several years – I would expect to see different ALECs experimenting with
4 different service plans.
5
6 Q. Is the public interest served by permitting and encouraging this type of
7 diversity among ALEC calling plans?
8
9 A. Absolutely. The entire premise of local competition is that the individual
10 choices of competitors in the marketplace trying to meet consumer demand
11 will provide a better result overall than dictating particular results by means
12 of tops-down regulation. So I would expect to see some ALECs offering
13 services that are very similar to those offered by the ILEC – on the theory that
14 customers are already familiar with those services – and hoping to make a
15 profit by operating in one or more respects more efficiently than the ILEC.
16 But at the same time, I would also expect to see some ALECs offering very
17 different calling plans – in terms of price, features, and inward/outward
18 calling areas – than those currently being offered by the ILEC.
19
20 It is difficult, if not impossible, to predict which of these different ALEC
21 strategies will prove most successful over time. I would expect, however,
22 that different approaches will appeal to different market segments.
23 Consequently, I would expect that, if competition is allowed to flourish, a

1 number of different ALECs will offer a number of different calling plans,
2 serving different market segments, but co-existing within the broader "local
3 exchange" market.
4
5 What is most important from a policy perspective, in these circumstances, is
6 to ensure that ALECs have the flexibility to devise and change their calling
7 plans as they see fit to respond to consumer demand.
8
9 Q. Do ALECs have the necessary flexibility today?
10
11 A. No, not really.
12
13 Q. Please explain.
14
15 A. ALECs have some flexibility with respect to outward calling plans. That is,
16 an ALEC may declare that it will not assess toll charges on its customers for
17 calls they make to any given set of NPA-NXX codes. The problem in this
18 context arises if the ALEC is required to pay the ILEC access charges for
19 outbound calls solely on the basis that those calls cross the ILEC's
20 monopoly-era local calling area boundaries. That is, with respect to *outward*
21 calls (i.e., calls originated by the ALEC's own customers over an ALEC dial
22 tone access line), the ALEC can include any given rate center for local call
23 treatment merely by designating all of the NPA-NXX codes associated with

that rate center within the appropriate routing and billing reference tables (databases). So even if the ILEC's local calling area for exchange "A" is limited to include only exchanges "A," "B" and "C," the ALEC could add "D" and "E" to *its customers'* outward local calling areas simply by inserting the NPA-NXX codes assigned to "D" and "E" as "local calls" in its rating tables.

It would be preferable, however, if the ALEC did not have to pay access charges on any intraLATA outbound call handed off to an ILEC. I note that this is the rule today in New York and Massachusetts. This arrangement would not compel any ALEC (or, for that matter, the ILEC) to make any particular choices with regard to local calling areas; what it *would* do is eliminate economic pressure on ALECS to conform to ILEC local calling areas. As I noted above, conforming to those areas may be a perfectly rational strategy, and some ALECs will certainly pursue it. But they should not be *forced* to pursue it.

Q. What about incoming calls?

A. In the case of incoming calls, the local calling area applicable to the *calling party* (who we can assume is most likely to be an ILEC customer) will necessarily govern the rate treatment for the call. Whereas (referring to the example above) the ALEC may choose to include rate centers "D" and "E"

within the *outward* local calling area for "A," the *ILEC* may not include "A" within the outward local calling areas for "D" or "E," thus making calls by its customers in those two exchanges to customers in rate center "A" — whether served by the ILEC or by an ALEC — subject to toll rate treatment.

Q. Why is this the case?

A. Recall from our earlier discussion that the determination as to whether a particular call is to be rated as local or toll will be based upon the NPA-NXX code of the called telephone number. Just because the ALEC places the NPA-NXX codes for exchanges "D" and "E" in its (outward) local rating table for exchange "A" does not, under current rules, compel the ILEC to symmetrically place the NPA-NXX codes associated with "A" (or even just the ALEC's NPA-NXX code(s) for "A") within the local rate tables at the *ILEC* switches serving "D" and "E".

Q. Is there anything that the ALEC can do to establish an inward local calling area that is larger than that being offered by the ILEC?

A. Yes. An ALEC can designate an NPA-NXX code in each of a number of specific rate centers such that calls to that NPA-NXX will be rated as local if placed from any *ILEC* telephone within the local calling area of the rate center to which the ALEC's NPA-NXX is assigned. If an ALEC customer

1 wanted inward local calling from anywhere within, for example, the same
2 three southeast Florida counties noted above, it would need to have assigned
3 to it a telephone number in each of a sufficient number of rate centers such
4 that at least one of its numbers would be reachable as a local call from
5 anywhere within the three counties.
6
7 Q. Would it be necessary for the customer (or, for that matter, the ALEC) to
8 have an NPA-NXX "presence" in every rate center in the area for which it
9 desired to establish inward local rate treatment?
10
11 A. No, because typically any given NPA-NXX code can be dialed as a local call
12 from several different exchanges. For example, the West Palm Beach
13 exchange can be reached on a local call basis from telephones in the
14 exchanges of West Palm Beach (the "home" exchange), Boynton Beach, and
15 Jupiter.[11] An ALEC could offer inward local calling from all of those
16 exchanges by establishing an NPA-NXX code in the West Palm Beach
17 exchange. However, most of the other exchanges in the Southeast LATA do
18 not have local call access to West Palm Beach. For example, Fort Lauderdale

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11. Boynton Beach and Jupiter list West Palm Beach as an EAS exchange; West Palm Beach can be accessed on an ECS basis (i.e., incurring the $0.25 per call charge) from the following additional exchanges: Belle Glade, Boca Raton, Boynton Beach, Delray Beach, Hobe Sound, Jensen Beach, Jupiter, Pahokee, Port St. Lucie, and Stuart. See BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff, Section A.3, pages 3-16.

1 does not.[12] Hence, in order for the ALEC and its customers to obtain local
2 call access from Fort Lauderdale, it would need to define *another* NPA-NXX
3 in an exchange from which Fort Lauderdale is a local call, such as Fort
4 Lauderdale itself, or Boca Raton, Coral Springs, Miami, etc.[13]
5
6 Note that all of these different NPA-NXXs would be physically "based" in
7 the same ALEC switch, and that they would all be reached, for traffic routing
8 purposes, by means of the same ALEC point of interconnection ("POI").
9 These issues are discussed more fully below, in connection with Issue Nos.
10 14 and 15. For now it suffices to note that an inevitable consequence of the
11 introduction of local competition is that the very different network
12 architectures deployed by ALECs affect the traditional concepts of
13 "exchange," "rate center" and "local calling area."
14
15 Q. Given the differences between ALEC and ILEC network architectures, is
16 there any way to map traditional monopoly notions of "exchange" and "rate
17 center" directly from ILEC operations to an ALEC?
18
19 A. No. The only way a one-to-one mapping could occur would be if an ALEC
20 actually duplicated the ILEC's network. That obviously is not going to
21 happen for many, many years, if it ever does. So, these traditional notions

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12. *Id.*, page 7 (sixth revision), effective August 1, 2000.

13. *Id.*, pages 3-16.

must be applied flexibly in a competitive environment to accommodate the fact that new competitors will use different network architectures and technologies to offer their services.

Q. When was the concept of an "exchange" or "rate center" first introduced, and what was its purpose at that time?

A. Exchanges and rate centers have been around since the earliest days of the telephone industry. Originally, an "exchange" generally referred to the geographic area served by a manual switchboard to which all of the telephone lines within that exchange were connected. An operator would complete "local" calls by physically "plugging" the calling party's line into the called party's line using a patch cord. If the call was destined to a customer served by a different switchboard (i.e., in a different exchange), the operator would signal the terminating switchboard and instruct the operator at that location as to which phone line the call was to be connected. Generally, such "inter-exchange" calls were rated as "toll" and additional charges for the call would apply. For calls to nearby exchanges, direct "trunks" would interconnect the individual switchboards; however, for longer distances, one or more intermediate switchboards would be involved in interconnecting trunks so as to achieve the desired end-to-end connection. Distance was thus a major factor in both the complexity and the cost of individual calls.

1 The overall cost (in terms of network resources involved) in completing an
2 interexchange call was thus significantly greater than for an intra-exchange
3 local call and, in addition, the overall cost was influenced heavily by the
4 *distance* over which the call would travel. In addition to the costs of the
5 transmission facilities themselves (whose costs were highly sensitive to
6 distance), calls of longer distances often required the intervention of multiple
7 operators in order to establish the desired routing.
8
9 As the number of telephone lines increased and mechanized switches
10 replaced cord switchboards, the "exchange" began to take on more
11 *administrative* properties rather than the *physical* properties associated with
12 individual switchboards. Multiple central office switches could – and did –
13 serve the same "exchange," and local calling was extended to include nearby
14 as well as the subscriber's "home" exchange.[14] Because calls still needed to
15 be differentiated as between "local" and "toll" and because toll calls still
16 needed to be priced on the basis of distance, the concept of a "rate center"

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14. Prior to the introduction of mechanized billing, all "toll" calls had to be manually "ticketed" and posted to the customer's account for billing purposes. This often proved to be more costly than the call itself, particularly for intraexchange calls and for calls to nearby exchanges that were connected on a direct trunk basis, both situations in which relatively large volumes of calls were common. In such cases, the telephone company would voluntarily expand its local calling areas to avoid billing costs, and would often increase the local rate to recapture the toll revenues that it claimed were rightfully its "due," even though in practical economic terms it was not worth the telephone company's while to track and bill them. The telephone company's ability to impose such costs on customers, of course, was simply a reflection of its status as a monopolist.

was introduced, assigning geographic Vertical and Horizontal ("V-H") coordinates to each exchange and permitting distance calculation to be made so that the appropriate rate could be assigned to each individual call.

Q. Besides their cost differences and any differences with respect to their respective routing, was there any other reason to preserve the distinction between "local" and "toll" calls?

A. Yes. For more than one hundred years, the prevailing view of telephone service pricing was that rates should be set on the basis of "value of service" and that toll calls were "more valuable" than local calls and should thus make a disproportionate contribution to what were seen as the "joint costs" of providing telephone service overall. The largest component of such "joint costs" was the individual subscriber loop, the pair of wires dedicated to a specific customer and running continuously from the telephone company central office to the customer's premises. Because the same loop was used to provide both local and toll calling, its "non-traffic-sensitive" costs were apportioned in some manner as between local call and long distance calls and, although such costs were in any event fixed with respect to the *volume* of traffic carried over the loop, they were to be recovered in *usage-based charges* applicable for toll (and for some local) calls.

1 The *effect* of this policy was to shift the burden of cost recovery for the
2 subscriber loop from the customer for whose specific benefit the loop had
3 been provided to customers who made the greatest use of the long distance
4 network. As a result, the basic monthly rate for purely *local* service
5 recovered only a fraction of the cost of the subscriber loop, making it possible
6 for the basic residential access line rate to be relatively inexpensive, with the
7 shortfall being made up through usage-based long distance rates set at levels
8 well in excess of their corresponding usage-sensitive cost.
9
10 Q. Is the concept of a "rate center" or "exchange" still relevant in the
11 telecommunications marketplace of today and tomorrow?
12
13 A. In the short run – probably at least for the next several years – it is highly
14 likely that the ILEC will want to retain its existing structure of local and toll
15 rates. In this sense – since the ILEC will remain the "900 pound gorilla" in
16 the local exchange market for some time – "rate centers" and "exchanges" are
17 certainly relevant. The challenge for policy makers, however, is to establish
18 rules and policies that permit, but do not require, ALECs to conform to the
19 traditional, monopolistic mold.
20
21 Q. In this regard, are the cost and policy rationales that originally supported the
22 "rate centers" and "exchanges" that the monopoly ILEC established still valid
23 today?

A. No, and for several important reasons.

- First, the explosion in telecommunications technology over the past two decades has both reduced the cost of telephone calls to a mere fraction of a cent per minute, has made any physical distinction that may have once existed as between "local" and "toll" calls all but obsolete, and has essentially eliminated *distance* as a cost-driver for all telephone calls.

- Second, US telecommunications policy, most recently codified in the federal *Telecommunications Act of 1996*, calls for all telecommunications services to be priced on the basis of their cost with all implicit subsidies eliminated.[15] The recovery of fixed (non-traffic-sensitive) costs associated with the subscriber loop from usage-based toll rates is considered to be an example of this type of implicit subsidy. Even before the enactment of the 1996 legislation, the FCC had embarked upon a policy of shifting recovery of non-traffic-sensitive costs away from usage-based toll (and switched access) charges in favor of fixed monthly fees imposed upon the end user.[16]

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15. *In the Matter of Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501 (1998), *Report to Congress*, at para. 8, citing 47 U.S.C. 254(d),(e).

16. *MTS and WATS Market Structure*, CC Docket No. 78-72, *Third Report and Order (Phase I)*, 93 FCC 2nd 241 (1983).

The significant decrease in the cost of telephone usage, coupled with the elimination of distance as a cost driver, makes the local/toll distinction largely obsolete as a technical matter. It certainly eliminates the traditional cost basis for using "rate centers" as a device for calculating the (no-longer-technically-required) distance attribute. The persistence of rate centers in today's and tomorrow's telecommunications market is thus an *anachronism*, a holdover from the past that is neither required nor appropriate in the modern telecommunications market environment.

This is not to say, of course, that all toll calling should disappear. As noted above, the point of introducing local exchange competition is to allow the market, as opposed to regulators, to decide what combinations of calling features (including price and inward/outward local calling areas) best serve the needs of various market segments. This *is* to say, however, that it would be a mistake for policy makers to retain or enforce regulatory rules that are designed to preserve or protect traditional monopoly rate center and exchange definitions.

Q. Has distance in fact ceased to be a basis for pricing in those sectors of the telecommunications industry that are now or that have become robustly competitive?

A. Yes. It is now widely recognized that both the long distance and wireless service markets are characterized by intense competition. Distance has all but disappeared entirely in interstate long distance pricing structures. The price of a140-mile interstate call from Jacksonville to Savannah is exactly the same as the price of a call from Miami to Nome, Alaska. Distance-based charges have also disappeared in the *international* long distance market as well, although country-specific price differences, based upon factors *other than distance*, persist.

Wireless carriers have also largely eliminated distance as a pricing element. Both Sprint PCS and AT&T Wireless Services have been offering standard calling plans that make no distinction as between "local" and "long distance" calls or otherwise charge on the basis of distance. Competitive pressure from these companies has forced incumbent cellular carriers such as Verizon Wireless or Cingular Wireless (the new entity produced by the merger of SBC's and BellSouth's wireless operations) to adopt similar distance-insensitive pricing plans. For example, Cingular Wireless offers an array of "Cingular Nation" calling plans that are marketed as having "no roaming or long distance charges" for calling anywhere within the 50 states.[17]

17. The plans offer varying levels of usage for a flat fee, beyond which a distance-insensitive charge of $0.35 per-minute applies. See http://www.cingular .com/cingular/products_services/local plans, accessed 2/26/01.

1 Perhaps the best example of all can be found in the case of the fiercely
2 competitive Internet service business, where distance has been completely
3 eliminated as a pricing element, and – while usage-based plans are available –
4 the overwhelming consumer preference seems to be for flat-rated.
5
6 In fact, the *only* segment of the telecommunications industry where distance-
7 based pricing (in the form of local/toll distinctions and/or mileage-based
8 rates) persists is in the largely noncompetitive *local* telecommunications
9 sector; indeed, the fact that this pricing remnant of a monopoly era persists in
10 the case of local telephone services serves to *confirm* the utter lack of
11 effective competition in this sector.
12
13 Q. Given that transport costs have been falling rapidly and that distance is no
14 longer a cost-driver, is there any basis at this time for preserving the rate
15 center construct?
16
17 A. Certainly not as a mandatory feature of ALEC operations or ALEC-ILEC
18 interconnection. In fact, there may be compelling reasons to eliminate it over
19 time. The proliferation of numerous geographically small rating areas is
20 probably the single most important factor contributing to the exhaust of NXX
21 codes within NPAs and the eventual exhaust of NPAs within the existing 10-
22 digit North American Numbering Plan, which is currently projected to occur
23 by the end of this decade unless drastic changes are made to the manner in

which telephone numbers and NXX codes are assigned. The FCC is actively considering mandating "rate center consolidation" to try to deal with this problem.

As noted above, as competition is slowly introduced into the local exchange market (and a slow introduction is all we have even begun to see to date), one would expect different ALECs to approach the market in different ways, reflecting their network architectures, marketing plans, and simply different business judgments about how to take on a hundred-year-old monopoly. That said, over time, the cost characteristics of telecommunications have changed so much from the time the existing structure was established that I would expect, once real competition materializes in the local telephone market, it will be almost certain to drive out whatever remnants of rate center-based pricing may still remain, just as it has done in the case of long distance, wireless and Internet services. It is clearly in the public interest now to allow ALECs to operate, to the maximum extent possible, without the constraint of traditional rate centers hampering their ability to offer innovative calling plans. This will allow the marketplace to operate that much more quickly to communicate to service providers what type of calling plan is actually best suited to today's telecommunications needs, using today's telecommunications. The Commission should initiate steps aimed at eliminating this remnant of the telephone industry's monopoly past as soon as possible.

**An ILEC's costs are entirely unaffected by the location at which the ALEC delivers an ILEC-originated call to the ALEC's end user customer.**

*Issue 14.* *(a) What are the responsibilities of an originating local carrier to transport its traffic to another local carrier?*

*(b) For each responsibility identified in part (a), what form of compensation, if any, should apply?*

Q. Does the FCC's implementation of the interconnection requirements of the *Telecommunications Act* define the basic framework within which the Commission should consider Issue 14(a)?

A. Yes, it does. The issue of the originating local carrier's responsibility has to be analyzed in the context of the obligations borne by two interconnected local carriers, which largely has been spelled out in the *Telecommunications Act* and the FCC's implementation of its local interconnection provisions. As a threshold matter, it is important to understand that the interconnection requirements adopted in the *Telecommunications Act* and developed in the FCC's *Interconnection Order* do not require or provide for symmetric treatment of ILECs and ALECs. Section 251(c)(2) *obligates* ILECs to interconnect with ALECs at any technically feasible point on the ILEC's network "(A) for the transmission and routing of telephone exchange service and exchange access; (B) at any technically feasible point within the carrier's network; (C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to

which the carrier provides interconnection; and (D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory ..."; by contrast, Sections 251(a)(1) confers upon all telecommunications carriers the duty "to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers" but contains none of the specifics that the statute applies to *incumbent* LECs.

Q. Why is the lack of symmetry between ILECs and ALECs with respect to their interconnection obligations important?

A. Relative to Issue 14(a), the key point of this asymmetry is that both the *Telecommunications Act* as well as FCC Rules hold that, in order to interconnect with an ILEC, an ALEC need establish only one (1) point of interconnection ("POI") with an ILEC at any technically feasible point *anywhere* in each LATA. The *Telecommunications Act* and FCC Rules thus *obligate* each ILEC to allow such interconnection by an ALEC at *any* technically feasible point that is designated by the ALEC.[18] Moreover, FCC regulations do not grant the ILEC the right to designate the point at which the other party must "pick up" the ILEC's traffic. In its *Local Competition Order*, the FCC explained:

> The interconnection obligation of section 251(c)(2), discussed in this section, allows *competing carriers to choose* the most

18. Rule 51.305(a)(2).

> efficient points at which to exchange traffic with incumbent LECs, thereby lowering *the competing carriers'* costs of, among other things, transport and termination of traffic.[19]

The FCC identified the *Act* as the source of these differing obligations.[20]

Q. Is there any prohibition against ILECs determining technically feasible interconnection points and imposing those determinations upon interconnecting ALECs?

A. I am not aware of any provision of the *Act* that says, in so many words, "ILECs may not designate the locations at which ALECs must interconnect." But that is the only rational way to understand what the statute says and what the FCC says about it. As noted above, the interconnection obligations of LECs and ILECs are specifically identified in the *Act*, and ILECs' obligations are different and more extensive than those of ALECs. An ILEC may not assume some authority that is not provided for in the *Act*.

Q. Can you cite any specific actions taken by the FCC that support your interpretation of the *Act* with respect to this issue?

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19. FCC *Local Competition Order* at ¶ 172, emphasis supplied.

20. *Id.*, at para. 220.

A. Yes. First, the FCC promulgated Rule 51.223(a), which specifically forbids states from imposing upon ALECs the obligations that Section 251(c) imposes upon ILECs. Section 251(c)(2) requires ILECs to allow interconnection at any technically feasible point on their networks. Rule 51.223(a) indicates that ILECs have no similar right to dictate where they will interconnect with ALECs' networks. In fact, the FCC reiterated its reasoning in connection with an interconnection dispute in Oregon, where the FCC intervened and urged the court to reject US West's argument that the *Act* requires competing carriers to interconnect in the same local exchange in which it provides local service. The FCC explained:

> Nothing in the 1996 Act or binding FCC regulations require a new entrant to interconnect at multiple locations within a single LATA. Indeed, *such a requirement could be so costly to new entrants that it would thwart the Act's fundamental goal of opening local markets to competition.*[21]

More recently, in its order on SBC's Section 271 application for Texas, the FCC made clear its view that under the *Telecommunication Act*, ALECs have the legal right to designate the most efficient point *from the ALEC's perspective* at which to exchange traffic. As the FCC explained:

> New entrants may select the most efficient points at which to exchange traffic with incumbent LECs, thereby lowering the

21. Memorandum of the FCC as Armucus Curiae at 20-21, *US West Communications Inc. v. AT&T Communications of the Pacific Northwest, Inc.*, (D. Or. 1998) (No. CV 97-1575- JE), emphasis supplied.

> competing carriers' cost of, among other things, transport and termination.[22]

The FCC was very specific:

> Section 251, and our implementing rules, require an incumbent LEC to allow a competitive LEC to interconnect at any technically feasible point. *This means that a competitive LEC has the option to interconnect at only one technically feasible point in each LATA.*[23]

ALECs are thus *entitled* as a matter of law to designate one and only one location at any technically feasible point within a LATA as their POI for that LATA, and the ILEC is *required* as a matter of law to transport traffic to be interchanged with the ALEC between the ILEC's end office switches and that POI, with the ALEC assuming the obligation to transport the traffic between the POI and the ALEC's end office switches. Nowhere is there any provision, either in the statute or in FCC rules, that would permit an ILEC to force interconnecting ALECs to establish a POI within each ILEC local calling area or to limit ILEC's obligations with respect to reciprocal compensation to only those situations in which the POI is physically located within the ILEC local calling area associated with the ILEC customer who originated the call or to whom the call is to be terminated. And clearly, the respective transport

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22. Memorandum Report and Order, *Application of SBC Communications Inc., Southwestern Bell Telephone Company and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance, Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region InterLATA Services in Texas*, CC Docket No. 00-65 at ¶ 78 (June 30, 2000).

23. *Id.*, at ¶ 78.

1 obligations of the ILEC and the ALEC on either side of their POI must
2 encompass *financial* responsibility for the associated costs of their transport
3 as well as the physical transport activity itself.
4
5 I would note that I am not a lawyer and am not trying to opine as to what the
6 *Act* "means" in a legal sense. But as a policy matter, it is unquestionable that
7 the overriding purpose of the *Act* is to encourage local exchange competition.
8 That purpose would be frustrated if the ILEC could directly or indirectly
9 force ALECs to incur costs to, in effect, duplicate the ILEC's ubiquitous
10 embedded network. This anticompetitive result, however, is exactly what
11 would occur if ALECs were forced to pick up traffic from the ILECs in
12 multiple locations. It would also amount to the same thing, and have equally
13 anticompetitive consequences, if the ILEC was able to shift financial
14 responsibility for some or all of the transport costs incurred on its side of the
15 POI to the ALEC, which is responsible for the transport that occurs on its
16 side of the POI.
17
18 Q. What principle do you derive from these interconnection obligations relative
19 to a local carrier's responsibility to transport originating traffic that is
20 destined to another interconnected local carrier?
21
22 A. These interconnection obligations lead to the principle that a local carrier
23 should be responsible for the costs of transport from the point at which the

1 call originates on its network to the POI. This principle must apply whether
2 or not that transport will extend beyond the originating caller's local calling
3 area. Any other proposed assignment of financial responsibility for transport,
4 e.g. to attempt to require the terminating carrier to pay for transport that is
5 beyond the originating caller's local calling area, but nevertheless on the
6 originating carrier's side of the POI, would perforce violate those established
7 interconnection obligations, and must be rejected.
8
9 Q. Have you been advised that any Florida local carrier has attempted to shift
10 financial responsibility for its originating transport in that manner?
11
12 A. Yes. My understanding is that BellSouth sought to impose precisely this type
13 of anti-competitive requirement on Level 3 Communications during their
14 ongoing arbitration case, Florida PSC Docket No. 000907-TP. According to
15 the Staff's recent memorandum to the Commission in that case, BellSouth
16 proposed that (in Staff's words) "while Level 3 can have a single Point of
17 Interconnection (POI) in a LATA if it chooses, it remains responsible to pay
18 for the facilities necessary to carry calls originated by BellSouth customers in
19 distant local calling areas to that single Point of Interconnection."[24]
20
21 Q. What was Staff's recommendation concerning that proposal?

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24. See February 22, 2001 *Memorandum* from Florida PSC Staff (Division of Competitive Services and Division of Legal Services), re: Docket No. 000907-TP, at page 4.

A. Staff has recommended that the Commission reject BellSouth's position, after concluding that "the FCC's orders, rules, and decisions vest in competitive local exchange companies the right to designate interconnection points for the mutual exchange of telecommunications traffic."[25] Thus, Staff appears to concur with my conclusion that the originating local carrier bears full responsibility, including financial responsibility, for transport up to the designated POI, regardless of whether any of that transport extends beyond the originating caller's local calling area.

**The Commission should allow ALECs to assign NPA/NXX codes to end users outside the rate center in which the NPA/NXX is homed and still receive reciprocal compensation, because the ILEC's costs do not vary depending upon the location at which the ALEC delivers traffic to *its* end user customers.**

*Issue 15.* *(a) Under what conditions, if any, should carriers be permitted to assign telephone numbers to end users who are physically located outside the rate center in which the telephone number is homed?*

*(b) Should the intercarrier compensation mechanism for calls to these telephone numbers be based upon the physical location of the customer, the rate center to which the telephone number is homed, or some other criterion?*

Q. Dr. Selwyn, Issue 15 in the Commission's Supplemental Order asks "[u]nder what circumstances, if any, should carriers be permitted to assign NPA/NXX codes to end users outside the rate center in which the NPA/NXX is homed,"

25. *Id.*, at pages 12-15.

1 and "[s]hould the intercarrier compensation mechanism for calls to these
2 NPA/NXXs be based upon the physical location of the customer, the rate
3 center to which the NPA/NXX is homed, or some other criterion?" What are
4 your views on the Commission's questions?
5
6 A. Carriers — ILECs and ALECs — should be allowed to define both their
7 outward and inward local calling areas and, more specifically, ALECs should
8 be allowed to offer customers competitive alternatives to the local calling
9 areas that are embodied in the ILEC's services. As I shall demonstrate, the
10 costs that the ILEC incurs in carrying and handing off originating traffic to
11 ALECs is entirely unaffected by the location at which the ALEC delivers the
12 call to the ALEC's end user customer. As long as the ALEC establishes a
13 POI within the LATA, it should be allowed to offer service in any rate center
14 in the LATA and to terminate calls dialed to that rate center at any location it
15 wishes. It is entirely reasonable and appropriate that ALECs "be permitted to
16 assign NPA/NXX codes to end users outside the rate center in which the
17 NPA/NXX is homed" and still be entitled to full reciprocal compensation
18 with respect to such calls.
19
20 Moreover, an ILEC's *costs* are not affected by the location at which the
21 ALEC delivers traffic to *its* end user customers. To be sure, the ILEC's
22 *revenues* may well be affected by, for example, an ALEC's decision to offer a
23 larger local calling area than that being offered by the ILEC, but that impact

is a *competitive loss* to the ILEC to which it has ample opportunity to respond competitively, for example, by offering its own customers expanded inward (and perhaps outward as well) local calling. An ILEC should not be permitted to escape the financial consequences of its failure to successfully compete by refusing to compensate other competing carriers for work that they have legitimately performed, nor should it be permitted to prevent its competitors from introducing new and innovative services that amount to more than merely parroting of the ILECs traditional offerings.

Q. How is the cost to the ILEC not affected by the location at which the ALEC delivers traffic to its customers?

A. Perhaps the best way to explain this point is by way of examples. Please refer to Figure 1 below. In this example, the call is originated by an ILEC customer in West Palm Beach and is delivered by the ILEC to an ALEC in Miami via a Point of Interconnection located in West Palm Beach. The ALEC's customer to whom the call was directed is also located in West Palm Beach, and so the ALEC needs to transport the call back to the delivery point in West Palm Beach. In this example, both of the ILEC's conditions for reciprocal compensation have been met, i.e., the POI is located within the local calling area of the originating ILEC access line, and the call is terminated to an ALEC customer who is also located within the local calling area of the originating ILEC access line.

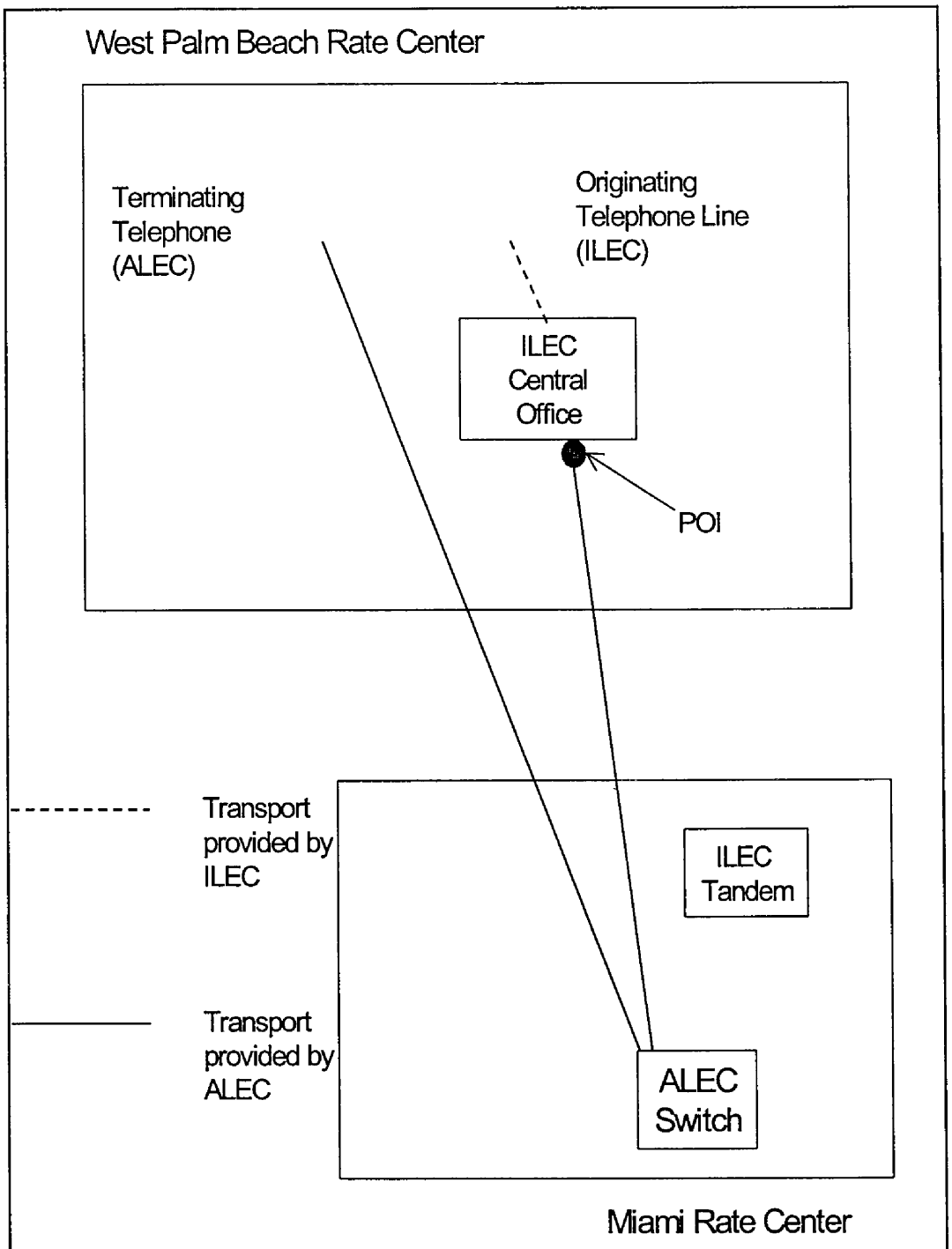


**Figure 1.** Call originated by an ILEC customer in West Palm Beach to a ALEC customer in West Palm Beach and delivered by the ILEC to a ALEC in Miami via a Point of Interconnection located in West Palm Beach.

1 Now let's change the facts of this example so as to violate one of the two
2 assumed conditions for reciprocal compensation. Here, the ILEC's West
3 Palm Beach customer still dials a West Palm Beach telephone number (i.e.,
4 an ALEC NPA-NXX that is rated to West Palm Beach), but instead of the
5 ALEC delivering the call to an ALEC customer in West Palm Beach as in the
6 previous example, the ALEC delivers the call to an ALEC customer
7 physically located in Miami. Note that the POI at which ILEC hands off the
8 call to the ALEC is still in West Palm Beach, i.e., still within the local calling
9 area of the ILEC access line that originated the call. In this circumstance, the
10 physical location of the point of delivery is not within the local calling area of
11 the originating ILEC telephone and, as I understand it, an ILEC placing such
12 limits on reciprocal compensation would argue that this is not a "local" call
13 and that no reciprocal compensation is required in this case.
14
15 Q. Is there any difference in the work that ILEC would be required to perform in
16 handing off the originated call to the ALEC as between these two examples?
17
18 A. No, and that is the essential point of these examples: In both of these cases,
19 ILEC's work — and its costs — are absolutely identical. The sole distinction
20 between the two examples lies in what the *ALEC* does once it receives the
21 call from ILEC at the POI. In the first case (Figure 1), the ALEC hauls
22 (transports) the call all the way back to West Palm Beach; in the second case
23 (Figure 2), the ALEC delivers the call to a customer located near its Miami

switch. In both of these cases, ILEC carries the call from the originating telephone to the West Palm Beach POI, and its work is entirely unaffected by where the ALEC ultimately delivers the call.

Q. What if you were to eliminate the condition that a Point of

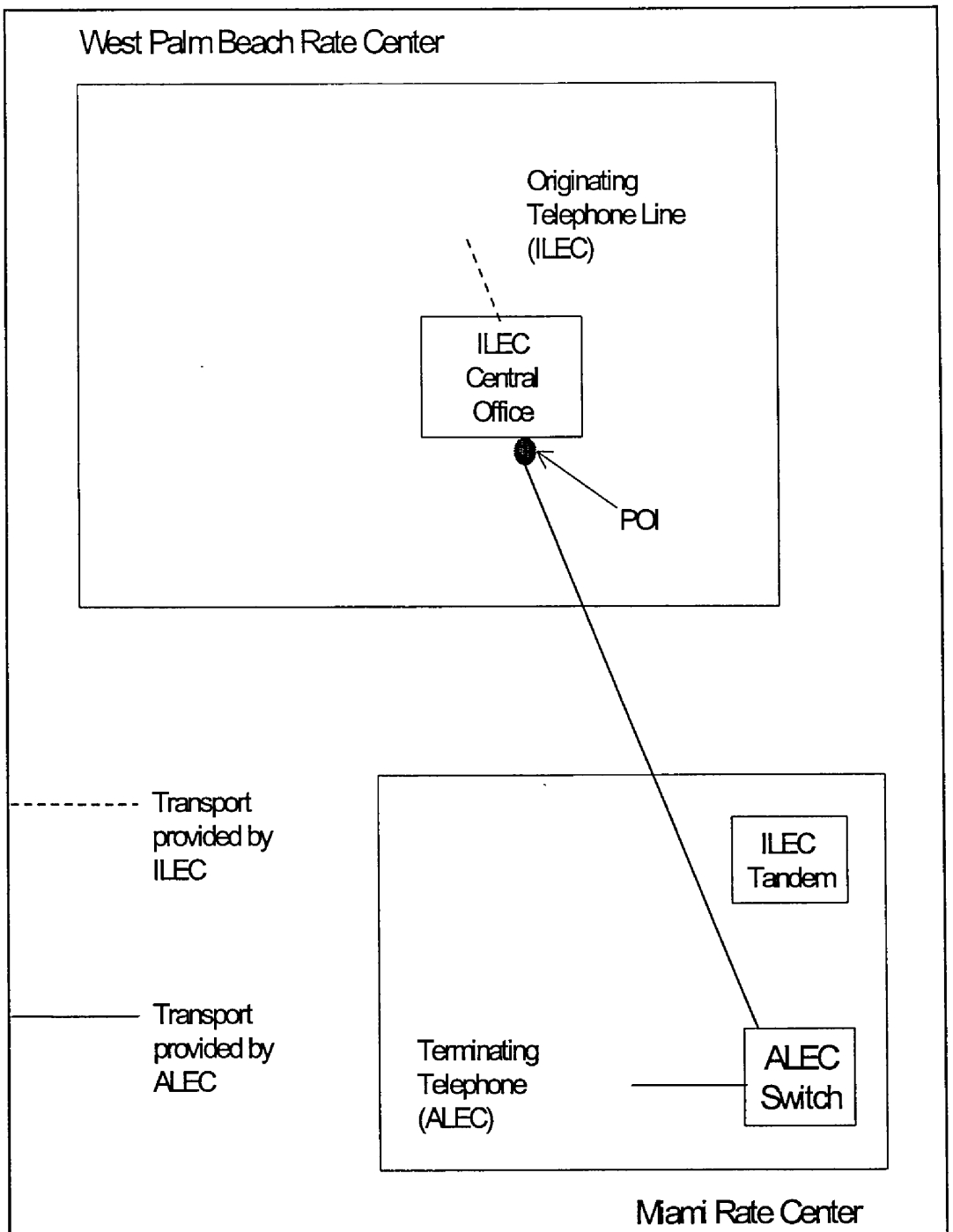


**Figure 2.** Call originated by an ILEC customer in West Palm Beach to a ALEC customer in Miami and delivered by the ILEC to a ALEC in Miami via a Point of Interconnection located in West Palm Beach.

24 Interconnection must be established in each local calling area. Does the location
25 of the point of delivery by the ALEC to its end user customer then affect ILEC's
26 costs?
27
28 A. No, it does not. To see why, please refer to Figures 3 and 4 below, which
29 correspond with Figures 1 and 2, respectively, except that in these two cases I
30 am assuming that the POI is located in Miami. In Figure 3, the ILEC
31 customer in West Palm Beach dials an ALEC number rated to West Palm
32 Beach. Because the POI is in Miami, the ILEC is required to transport the
33 call over its network to Miami, where it is handed off to the ALEC. As in
34 Figure 1, the ALEC then transports the call *over the ALEC's network* back to
35 West Palm Beach for delivery to its customer. In Figure 4, the ILEC
36 customer in West Palm Beach also dials an ALEC number rated to West
37 Palm Beach, and ILEC transports the call to the POI in Miami. However, as
38 in Figure 2, the call is then delivered by the ALEC to an ALEC customer in
39 Miami rather than in West Palm Beach. As was the case as between Figures
40 1 and 2, there is absolutely no difference in the work that ILEC is called upon
41 to perform as between Figures 3 and 4. In both of these cases, the ILEC
42 transports the originating call from its West Palm Beach customer to the
43 ALEC POI in Miami; *the location where the ALEC ultimately delivers the*
44 *call has no effect whatsoever upon ILEC's work or its costs.*

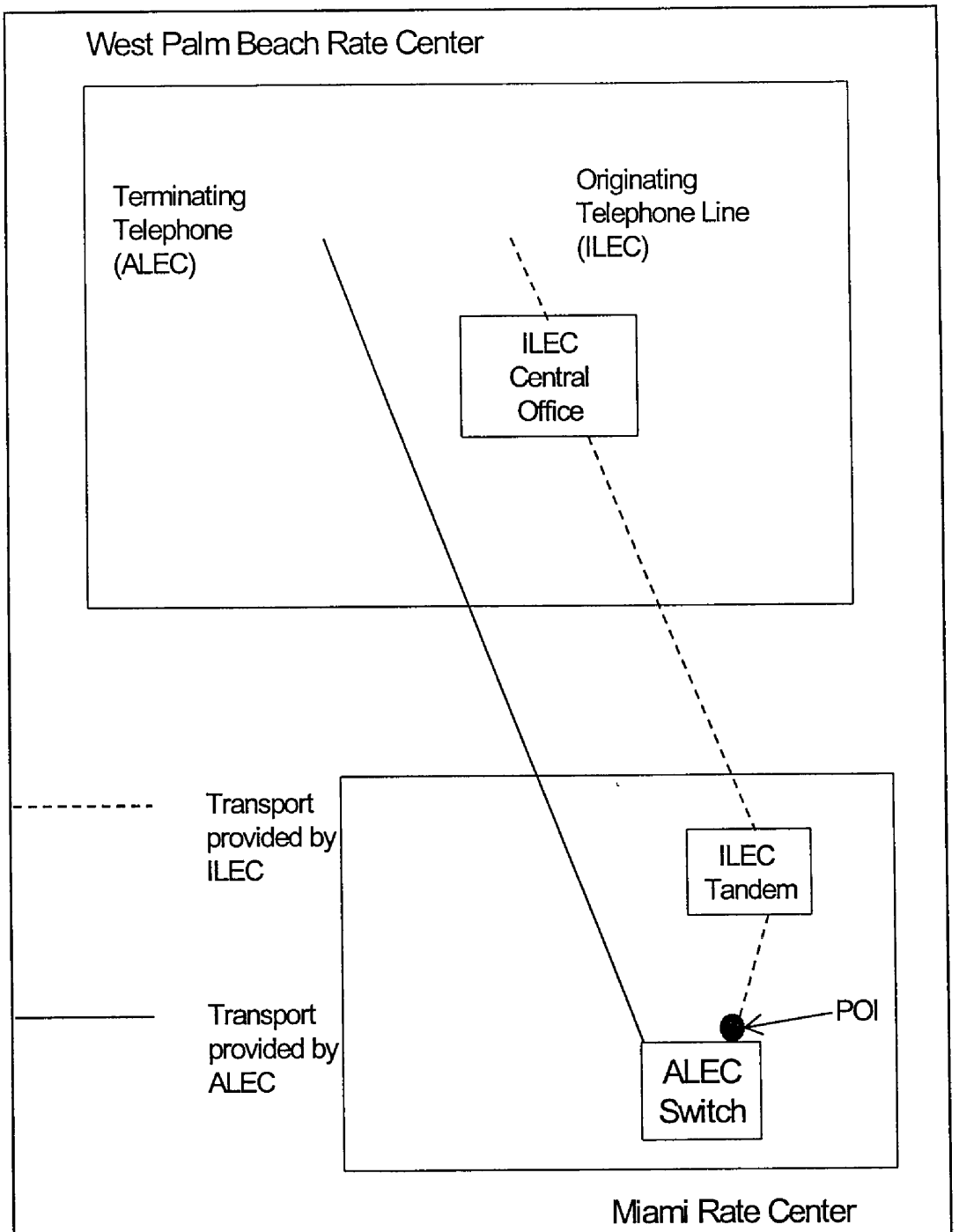


**Figure 3.** Call originated by an ILEC customer in West Palm Beach to a ALEC customer in West Palm Beach and delivered by the ILEC to a ALEC in Miami via a Point of Interconnection located in Miami.

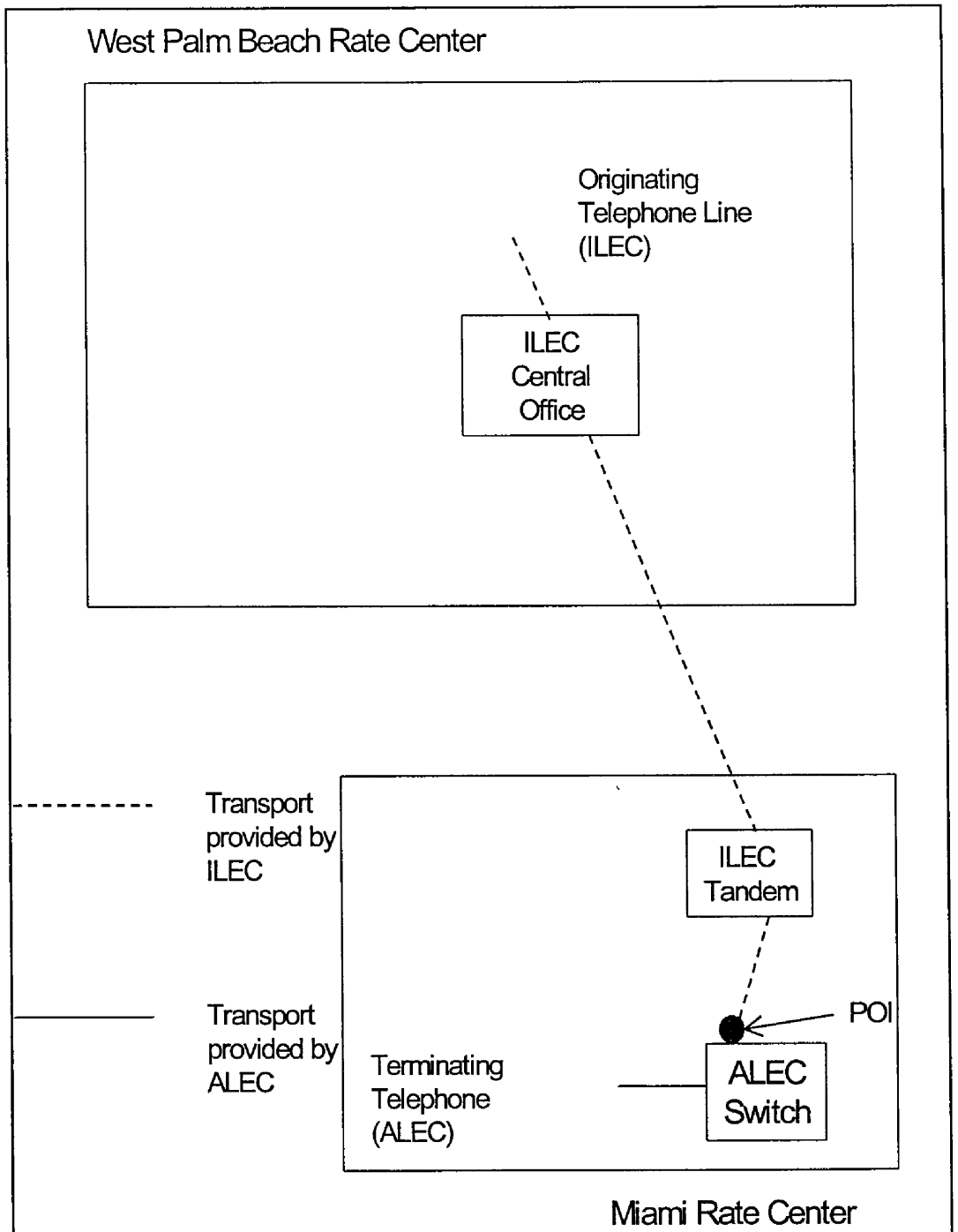


**Figure 4.** Call originated by an ILEC customer in West Palm Beach to a ALEC customer in Miami and delivered by the ILEC to a ALEC in Miami via a Point of Interconnection located in Miami.

1 Q. You have suggested that the only impact upon an ILEC arising out of the
2 ALEC's decision as to the point of delivery of a given call lies in the
3 possibility that the ILEC might sustain a competitive loss. Please elaborate
4 on this point.
5
6 A. When an ALEC establishes an NPA-NXX code in one rate center but delivers
7 the call to its customer physically located in a different rate center, it is
8 providing what some ILECs have described as a "virtual foreign exchange"
9 ("virtual FX") type of service. Mechanically that is more or less what the
10 ALEC is doing. The calling party dials a number rated to one particular
11 exchange and the call is then delivered to an ALEC customer in a different
12 exchange. Suppose that, under an ILEC's tariff, a toll charge (or, in certain
13 cases, a 25 cent message charge) may apply for calls beyond a certain
14 distance or between non-contiguous exchanges, whereas an ALEC, in an
15 effort to differentiate its service from that of the ILEC and also to offer
16 potential customers some additional service features that are not being
17 offered by the ILEC, treats some or these calls as "local" and thus imposes no
18 specific charge for the call. If, as a result of the ALEC's offering, some of the
19 ILEC's customers are persuaded to switch over to the ALEC's service, the
20 ILEC will sustain a loss of both local and toll revenue. *Such a loss of*
21 *business is a direct and inescapable outcome of competition*; the ILEC can
22 either respond by reducing or eliminating its own (toll) charge for these calls
23 (thereby sustaining some revenue loss), or risk losing customers to the less

1 expensive ALEC service (thereby also sustaining some revenue loss). The
2 issue here is entirely one of *pricing and competitive response*, not one of
3 policy. In many cases, however, even that potential loss of revenue can be
4 overcome if the ILEC adopts a more competitively rational pricing metric.
5
6 Q. You stated that in some cases the ILEC may sustain a loss of toll revenue.
7 Why would that not arise in *all* cases where the ALEC provides "free"
8 service over a route for which the incumbent imposes a charge?
9
10 A. This is because in many cases where the incumbent imposes a charge the
11 customer does not use the service at all. For example, many customers reach
12 their Internet Service Provider ("ISP") by dialing an ALEC number rated in
13 the customer's home community that the ALEC ultimately delivers to the ISP
14 at a distant point. In the examples we were discussing earlier and that are
15 illustrated in Figures 1 through 4, suppose that the ISP customer takes local
16 telephone service from BellSouth in West Palm Beach, and that the call is
17 handed off to an ALEC, who then delivers the call to an ISP in Miami. One
18 might argue that this arrangement deprives BellSouth of the 25 cents per call
19 revenue it would otherwise have received were this virtual FX arrangement
20 not in place. In reality, the West Palm Beach customer would have been
21 unlikely to have called the Miami ISP on a toll call basis in the first place,
22 and would have either selected a different ISP with a West Palm Beach
23 presence, or simply not used the Internet at all. Either way, BellSouth would

not have received any toll (or 25 cent "local") revenue. Hence, in this circumstance, the only "revenue loss" to BellSouth is a theoretical one based upon the "what might have been" rather than the "what actually was."

Q. Finally, Dr. Selwyn, our discussion has thus far been based upon your assumption that for purposes of this issue the term "local calling area" refers specifically to the *flat-rate* local calling area as defined for each exchange within an ILEC's Florida tariff, rather than to the area including both flat-rated and 25 cent per-message calls, or perhaps even the entire LATA. If in fact an ILEC means to define its local calling areas as embracing the entire LATA and will thus agree to pay reciprocal compensation on any intraLATA call as long as the POI is located within the LATA, would you still conclude that an ILEC policy of requiring that ALECs maintain one POI in each local calling area would be anticompetitive and unlawful?

A. No, in that event, an ALEC would be able to satisfy such a requirement by establishing a POI anywhere within a LATA, and would be entitled to reciprocal compensation on calls handed off to it so long as both the originating and terminating lines are located within the same LATA. I would, however, be very surprised if the ILECs' position is that the relevant local calling area for purposes of reciprocal compensation embraces the entire LATA.

**The appropriate inter-carrier compensation for the termination and transport of local traffic is a symmetric rate based upon the ILEC's prevailing TELRIC cost level, which creates incentives for continual reductions in the costs of call termination services and harms neither ILECs nor end users.**

*Issue 17. Should the Commission establish compensation mechanisms governing the transport and delivery or termination of traffic subject to Section 251 of the Act to be used in the absence of the parties reaching an agreement or negotiating a compensation mechanism? If so, what should be the mechanisms?*

Q. What should be the default compensation mechanism, if any, for the Commission to apply for reciprocal compensation?

A. Issue 17 in this phase of the proceeding is closely related to Issue 9 in Phase I. I addressed this question in my December 1, 2000 Direct Testimony, pages 63-68.

**The Commission should adopt an expedited, streamlined procedure so that those carriers that cannot agree on how to implement the Commission's rulings in this proceeding on reciprocal compensation and tandem compensation in the context of their existing business and contractual relationships may do so without protracted litigation.**

*Issue 18. How should policies in this docket be implemented?*

*-impact on existing agreements*
*-expedited procedures*

1 Q. Issue 18 asks how the policies established in this docket should be
2 implemented. Why is this question an important one for the Commission to
3 resolve?
4
5 A. Regulatory uncertainty is anathema to the operation of regulated companies.
6 Indeed, one need look no further than the business section of the newspaper
7 to see the effect that regulatory uncertainty is having, along with other
8 factors, on the competitive local telecommunications industry. Ideally, the
9 Commission's rulings in this case could be applied by ILECs and ALECs
10 immediately within the context of their existing business and contractual
11 relationships. The Commission would well serve the industry by establishing
12 rules that can be implemented by all carriers in an efficiently and rapidly,
13 without recourse to additional protracted litigation.
14
15 Q. How do you propose that the Commission accomplish this?
16
17 A. The parties will no doubt argue this issue in detail in their briefs, and I
18 personally cannot speak to the specifics of Commission procedure. I do note
19 that the issue of ALEC entitlement to reciprocal compensation for transport
20 and termination of ISP-bound traffic, as well as that of ALEC entitlement to
21 receive tandem compensation, have both been hotly contested by ILECs for
22 some time. Some of the parties to this case have litigated these issues before
23 the Commission and some have not. Clearly all parties in this case have an

1 interest in the outcome of these issues and in reflecting these rulings in their
2 ongoing business relationships now and in the future. This proceeding has
3 dealt with these issues in a generic way, but ultimately ILECs and ALECs
4 will each need to conform their business practices to the rulings in this case.
5 To the extent that an ILEC and an ALEC cannot agree as to how to do this,
6 they may of course seek redress at the Commission. For efficiency's sake,
7 however, I think the Commission should be able to address the matter of
8 individual entitlement, within the context of the LECs' business relationships,
9 in an expedited, streamlined manner so that this case need not be played out
10 again individually between each ILEC and ALEC.
11
12 Q. Does this conclude your testimony at this time?
13
14 A. Yes, it does.