

ORIGINAL

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

DIRECT TESTIMONY OF

DAVID L. TALBOTT

ON BEHALF OF

**AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.
AND TCG SOUTH FLORIDA, INC.**

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8

9 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND OCCUPATION.**

10 A. My name is David L. Talbott. My business address is 3737 Parke Drive,
11 Edgewater, Maryland 21037. I am a District Manager in the Local Services
12 and Access Management group in AT&T Network Services.

13

14 **Q. PLEASE PROVIDE YOUR BACKGROUND AND PROFESSIONAL**
15 **EXPERIENCE AS THEY RELATE TO THE ISSUES IN THIS**
16 **PROCEEDING.**

17 A. I began my career with the AT&T Long Lines Department in 1976. From
18 1979 through 1988, I held various management positions in engineering
19 related to the design and implementation of private line services. From 1988
20 through 1998, I developed and managed numerous business relationships
21 between AT&T and selected Competitive Access Providers and Competitive
22 Local Exchange Carriers. My responsibilities required that I address and
23 resolve both technical and business issues, including the interconnection of

1 the respective networks. From February through August of 1999, I was the
2 Business Development Manager for AT&T's Internet Protocol Cable
3 Telephony Project. My responsibilities included assessing the technical
4 capabilities of selected vendors and contracting with the best-qualified
5 vendors to assist AT&T in its development of Internet Protocol cable
6 telephony technology. As of September, 1999, I was assigned to my current
7 position, where I am responsible for the development and negotiation of
8 interconnection agreements between AT&T and incumbent local exchange
9 carriers, focusing on network interconnection issues.

10

11 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
12 **PROCEEDING?**

13 A. My testimony supports AT&T's proposal as to how AT&T and BellSouth
14 should interconnect their two networks and why AT&T should be permitted
15 to charge BellSouth for tandem switching when completing calls from
16 BellSouth's customers. First, I will explain that the AT&T and BellSouth
17 networks should and can be interconnected on an equivalent basis, even
18 though the two network architectures are substantially different. (Issue 7.)
19 Second, I will describe to the Commission how AT&T's network
20 interconnection solution would benefit AT&T, BellSouth, and Florida
21 consumers. And third, I will demonstrate that the geographic area covered by
22 AT&T's switches is comparable to the geographic area covered by
23 BellSouth's tandem switches. (Issue 12.)

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I. NETWORK INTERCONNECTION

ISSUE 7

Q. BRIEFLY DESCRIBE THE ISSUE REGARDING NETWORK ARCHITECTURE.

A. This issue concerns a dispute about who will bear the costs of transporting local traffic between the BellSouth and AT&T networks in Florida. In particular, it concerns the question of whether BellSouth should be responsible for the costs of originating, transporting, and terminating local calls from its own customers to AT&T customers in Florida. BellSouth has inaccurately portrayed this as a question of whether its subscribers should pay for the design of the AT&T network in Florida. I want to dispel that myth at the outset: the AT&T proposal will not in any way impose any additional financial burden on any BellSouth customers in Florida. Indeed, the real question is whether AT&T should be forced to design its network less efficiently and incur higher costs simply because BellSouth refuses to transport its own originating traffic as it is required to and as it has historically done and continues to do for calls to its own customers and as AT&T does for calls from its customers to BellSouth customers. The focus of this issue should be on the harm to competition and consumers caused by the BellSouth proposal and on the illegality of the BellSouth proposal under the Telecommunications Act of 1996 (the "Act") and FCC regulations.

1 **Q. WHAT HAS GIVEN RISE TO THIS ISSUE?**

2 A. In order to interconnect the BellSouth and AT&T networks, the two parties
3 must deploy Interconnection Facilities between the switches serving AT&T's
4 customers and the end office switches serving BellSouth customers and the
5 subtending BellSouth tandem switches.¹ The parties must then establish
6 trunking between these switches for the efficient routing of interconnection
7 traffic.

8 As I explain in greater detail below, to effectively compete for local
9 exchange customers in Florida, AT&T has designed and deployed a network
10 architecture that is substantially different than the embedded BellSouth
11 network. This means that some calls from BellSouth customers to AT&T
12 customers must be transported beyond the BellSouth local calling areas to be
13 delivered to the AT&T switch serving the terminating AT&T customers.
14 Despite unequivocal legal obligations requiring each party to bear the cost to
15 transport and terminate its own traffic, BellSouth objects to bearing any costs
16 for Interconnection Facilities beyond the BellSouth local calling areas. This
17 is true even though both parties have agreed that calls within each LATA will
18 be considered local for purposes of reciprocal compensation. This means that
19 BellSouth is proposing that AT&T bear the cost of transporting BellSouth's

¹ Interconnection Facilities are the physical transmission channels that transport traffic between the AT&T and BellSouth switches that are used for local and intraLATA toll traffic. Facilities should be differentiated from trunks or trunk groups, which are the logical connections between two switches permitting traffic to be routed in an efficient manner. Trunks are established over working facilities.

1 originated intraLATA and Extended Area Calling from BellSouth's existing
2 calling areas to AT&T's switch for completion of such calls.

3

4 **Q. WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?**

5 A. BellSouth's position is that it is not responsible for all of the costs of
6 originating, transporting, and terminating its own traffic for calls from its
7 customers to AT&T customers. Rather, BellSouth asserts that it should have
8 the unilateral and arbitrary right to designate a point within each of its Florida
9 local calling areas where its responsibilities will end. Instead of transporting
10 its own calls to their terminating (switch) destinations, BellSouth will only
11 deliver its local and intraLATA traffic to the points designated by BellSouth
12 and will require AT&T (and its customers) to bear the cost of transporting
13 and terminating BellSouth's traffic beyond those points. Meanwhile,
14 BellSouth wants AT&T to be financially responsible for delivering AT&T's
15 originating traffic to each and every BellSouth end office and BellSouth also
16 wants AT&T to be financially responsible for picking up BellSouth's
17 originating traffic on each and every BellSouth local calling area. Thus,
18 according to BellSouth, AT&T is financially responsible for delivering its
19 own originating calls (calls from its customers to BellSouth customers) into
20 every BellSouth end office, but BellSouth is not financially responsible for
21 delivering its originating beyond the boundaries of its local calling areas to
22 the location of the AT&T switch.

23

1 **Q. WHAT IS AT&T'S POSITION ON THIS ISSUE?**

2 A. AT&T's position is that the responsibility for originating, transporting, and
3 terminating traffic should be mutual and that each party should be financially
4 responsible for transporting its own originating traffic to a comparable point
5 on the terminating party's network (i.e. the other party's switch serving the
6 terminating customer). AT&T, and all ALECs, should be permitted to
7 choose the most efficient interconnection point, as the law allows. ALECs
8 should not have to design their networks less efficiently and their customers
9 should not shoulder the burden of higher costs simply because BellSouth
10 refuses to transport its own originating traffic as it is required to.

11

12 **Q. WHAT SHOULD THE COMMISSION DO?**

13 A. The Commission should adopt AT&T's network interconnection proposal.
14 This proposal imposes on both parties the same relative obligations to
15 transport and terminate traffic (i.e., equivalent interconnection). The
16 Commission should thus continue to incorporate the longstanding policy that
17 the originating party pays the cost of its own traffic. Unlike BellSouth's
18 proposal, which places unequal obligations on the parties, substantially
19 advantaging BellSouth, AT&T's proposal establishes equivalent
20 interconnection, giving no party any advantage over the other.

21

1 Q. YOU MENTIONED THAT BELLSOUTH'S AND AT&T'S NETWORK
2 ARCHITECTURES ARE SUBSTANTIALLY DIFFERENT. WHAT
3 DO YOU MEAN BY THIS STATEMENT?

4 A. AT&T's and BellSouth's networks are similar in the sense that the two
5 networks cover comparable geographic areas. This matter is discussed in
6 greater detail later in my testimony under Issue 12. Beyond this one
7 similarity, however, the two networks are substantially different with respect
8 to their architecture.

9 BellSouth's network is a multi-layer or tiered network. BellSouth has many
10 end office switches spread out over its service area and installed in the
11 neighborhoods populated by its customers. These end office switches are
12 interconnected by an overlying network of tandems. When certain volume
13 levels are achieved and it is cost effective, BellSouth uses high-capacity
14 trunks that directly link certain end office switches (bypassing the tandems).
15 BellSouth's network architecture is depicted in Exhibit DLT-1 to my
16 testimony. This hierarchical or layered network was deployed when there
17 were limited transport options on the end-user side of the switch, resulting in
18 many switches deployed in the neighborhood (thus, keeping loop lengths
19 relatively short), as was dictated by the technology of the times. As I
20 understand it, BellSouth finds the use of its tandem switches to be the least
21 costly method of interconnecting many end offices until certain traffic
22 thresholds are achieved between two end offices, and only then is it more
23 efficient for BellSouth to directly connect the two end offices. This

1 arrangement recognizes that BellSouth's tandem facilities (both switch and
2 common shared transport) are less expensive to utilize for occasional use
3 than the capacity commitment associated with dedicated transport, until
4 enough traffic is develops to fill the dedicated transport.

5

6 **Q. WHAT ABOUT AT&T'S NETWORK?**

7 A. AT&T, in contrast to BellSouth, began its local telephony deployment only
8 recently. Therefore, AT&T's switches² are deployed consistent with the
9 costs and efficiencies of today's technology. Currently, AT&T has a menu of
10 options that are capable of economically connecting end users located
11 relatively far from a switch. These options include: (1) high capacity fiber
12 optic rings to commercial buildings and multiple dwelling units; (2) hybrid
13 fiber coax plant being deployed by AT&T's cable TV properties; (3) fixed
14 wireless technology now being beta tested (although this technology would
15 likely come under a different (CMRS) interconnection agreement), (4) UNE
16 loop resale through AT&T collocation in BellSouth end offices, and (5)
17 dedicated high-capacity facilities (in some cases using special access services
18 purchased from BellSouth but more appropriately through combinations of
19 UNEs). Due to the very high initial cost of switching platforms as compared
20 to the lower incremental cost of high-capacity facilities, AT&T has chosen to
21 deploy fewer switches and more transport on the end-user side of the switch.

² Although AT&T switches normally provide both an end office and tandem function and are really multi-function switches, I will refer to them in this testimony simply

1 (Even where AT&T has determined the need for multiple switches within a
2 LATA, they are often collocated within the same building.) The distinction
3 between the two networks is that while BellSouth deploys tandems first and
4 then grows into high use dedicated trunking between offices, AT&T deploys
5 a single switch combined with long transport on the end-user side of the
6 switch, because that combination is incrementally less costly than adding a
7 new switch in each part of a market. AT&T's network architecture is
8 depicted in Exhibit DLT-2 to my testimony.

9 Consistent with AT&T's architecture, there are certain LATAs in which
10 AT&T has not deployed a switch physically within the LATA. AT&T has
11 agreed that in such cases, AT&T will establish at least one physical Point of
12 Interconnection (POI)³ within the LATA, and AT&T will provide all of the
13 facilities (for both originating and terminating traffic) between its switch and
14 such POI. Where AT&T has chosen not to deploy a switch within a LATA,
15 the POI will be treated as if it were an AT&T switch (i.e., AT&T has
16 virtually extended its switching functionality into the LATA to the POI). The
17 AT&T architecture, therefore, provides a switch (or switching presence) in
18 every BellSouth LATA. Further, although AT&T believes it has the legal
19 right to establish a POI at the most efficient, technically feasible point,
20 AT&T is willing, under its proposal, to establish at least two physical POIs

as "switches." In AT&T's proposed Interconnection Agreement, they are referred to as "switch centers."

³ As used in this testimony POI means the point at which the two networks are interconnected for the mutual exchange of traffic.

1 within each LATA where BellSouth provides service today unless there is a
2 de minimus volume of traffic across the LATA.

3

4 **Q. WHY DIDN'T AT&T DEPLOY A NETWORK ARCHITECTURE**
5 **THAT IS SIMILAR TO BELLSOUTH'S?**

6 A. Considering the number of customers AT&T serves, the volume of AT&T's
7 traffic these customers generate, and the geographic dispersion of these
8 customers, the BellSouth network architecture would be highly inefficient for
9 AT&T. Yet, that is exactly what BellSouth proposes: that AT&T be
10 required to replicate the BellSouth network architecture for network
11 interconnection, or at least be required to incur the cost that would be
12 associated with replicating the BellSouth architecture.

13

14 **Q. WHY WOULD BELLSOUTH'S PROPOSAL REQUIRE AT&T TO**
15 **REPLICATE BELLSOUTH'S NETWORK?**

16 A. BellSouth has a sufficient volume of traffic within and between each its local
17 calling areas to cost justify trunking to that area and had designed its network
18 accordingly. AT&T may or may not have a sufficient volume of traffic
19 between each BellSouth local calling area to cost justify trunking to that area.
20 As AT&T enters a new market, it starts with few or no customers. In such
21 circumstances, AT&T certainly would not have a sufficient volume of traffic
22 to cost justify end office trunking to such a local calling area or justify the
23 capital needed to build out AT&T's network. In these areas, the most

1 efficient method for AT&T to interconnect to the BellSouth network for
2 AT&T's traffic would be through a BellSouth tandem switch, where AT&T
3 may establish a POI. It would be highly inefficient for AT&T to establish
4 trunk groups or build network where the volume of AT&T traffic does not
5 justify such. AT&T should be permitted to determine the most cost efficient
6 method of interconnection for itself, regardless of the volumes of traffic that
7 BellSouth may have with or between certain local calling areas.

8

9 **Q. WHAT WOULD BE THE CONSEQUENCES OF REQUIRING AT&T**
10 **TO INTERCONNECT WITHIN EACH LOCAL CALLING AREA?**

11 A. Such a requirement would have two adverse affects on AT&T. First, AT&T
12 would lose the benefits of its efficient network architecture, incurring higher
13 network costs. Second, it would shift to AT&T the transport costs that
14 BellSouth is required to lawfully bear under the Act. The interconnection
15 arrangement proposed by BellSouth would be extremely unfair to AT&T,
16 substantially more favorable to BellSouth and would suppress investment in
17 competitive facilities. The higher costs that AT&T would be forced to bear
18 under BellSouth's proposal would make those Florida markets that would
19 have been marginally profitable under AT&T's interconnection proposal,
20 uneconomic to serve. Simply put, BellSouth's interconnection proposal is
21 harmful to competition in Florida. AT&T has proposed, and my testimony
22 explains, that the interconnection arrangement adopted by the Commission
23 should be neutral to either party's network architecture (i.e., each party

1 should have the same relative obligations when it is in the role of originating
2 carrier) and require each party to bear the costs to transport and terminate its
3 own traffic.

4

5 **Q. DO YOU HAVE DIAGRAMS THAT DEPICT THE COSTS**
6 **ASSOCIATED WITH ORIGINATING, TRANSPORTING AND**
7 **TERMINATING TRAFFIC AS YOU DESCRIBE IN YOUR**
8 **TESTIMONY?**

9 A. Yes. Exhibit DLT- 3 to my testimony depicts the costs that an ILEC incurred
10 to complete a call prior to the Act. Exhibit DLT- 4 to my testimony depicts
11 the costs that an originating carrier is expected to incur to complete a call
12 between competing LECs under the Act.

13 Exhibit DLT-4 also depicts AT&T's proposed interconnection arrangement.
14 Please note that in DLT-4 the costs are allocated between the parties in the
15 exact same manner when each party is in the position of originating carrier
16 and again as the terminating carrier.

17 Exhibit DLT-5 depicts BellSouth's interconnection proposal. If you compare
18 how the transport costs are allocated to each party in this diagram, it cannot
19 be more clear that the BellSouth interconnection proposal is not reciprocal
20 and that it is BellSouth that has shifted a large portion of its interconnection
21 costs to AT&T. Exhibit DLT-5 shows that AT&T would bear all of the costs
22 to deliver its traffic to the BellSouth network when AT&T is the originating

1 carrier and that AT&T again would bear all of the costs to carry BellSouth's
2 traffic back to the AT&T network when BellSouth is the originating carrier.

3

4 **Q. WHY IS BELLSOUTH'S PROPOSED INTERCONNECTION**
5 **ARRANGEMENT UNFAIR TO AT&T?**

6 A. Under BellSouth's proposed interconnection arrangement, AT&T and
7 BellSouth would have substantially inequitable obligations to provide
8 interconnection facilities. AT&T would be financially responsible for the
9 delivery of its traffic to each BellSouth end office, and BellSouth would
10 deliver its traffic to AT&T no further than its own local calling area. This
11 situation is unfair to AT&T, because the parties do not have reciprocal
12 interconnection obligations even though the BellSouth and AT&T networks
13 cover geographically comparable areas and have symmetrical compensation
14 rates.

15

16 **Q. WHY SHOULD THE COMMISSION REQUIRE AT&T AND**
17 **BELLSOUTH TO INTERCONNECT ON AN EQUIVALENT BASIS?**

18 A. First of all, as I discuss below, the law requires it. Moreover, as I have
19 previously stated, AT&T's network covers a comparable geographic area to
20 BellSouth's network. This is supported by the evidence provided under Issue
21 12. If an ALEC has only a small network and only offers services over a
22 small geographic area or only to an exclusive group of customers, then that
23 ALEC's network would not be comparable to BellSouth's network. But

1 AT&T has made substantial network investments in Florida and AT&T
2 offers its local exchange services without regard to location. Therefore, the
3 Commission should require that the BellSouth and AT&T networks be
4 interconnected on an equivalent basis.

5 BellSouth's interconnection proposal completely disregards the geographic
6 comparability of the two networks. Ignoring the legitimacy of AT&T's
7 network architecture, BellSouth proposes that the two networks be
8 interconnected solely on the basis of *BellSouth's* network architecture. In
9 other words, BellSouth is asking the Commission to ascribe an arbitrary
10 primary status upon BellSouth's network. BellSouth may believe that its
11 network is entitled to this arbitrary status because it pre-existed local
12 telephone competition or is based on a traditional hierarchical network
13 architecture, but the Commission should not be led into making such a
14 decision.

15

16 **Q. SHOULD THE BELLSOUTH LOCAL CALLING AREA BE THE**
17 **BASIS FOR INTERCONNECTING THE TWO PARTIES**
18 **NETWORKS?**

19 A. No. BellSouth's local calling areas should not be the basis of network
20 interconnection. First, there is no logical reason to use local calling areas.
21 BellSouth's original local calling areas were established for the purpose of
22 setting rates solely for BellSouth's customers. They bear no relationship to
23 the capacity of switches and other facilities deployed by ALECs or

1 BellSouth. Moreover, there is no such thing anymore as “a” local calling
2 area. For some time BellSouth has offered EAS plans and now even offers
3 LATA-wide local calling areas. These various calling plan options dispel
4 any suggestion that there is any real significance to the geographic scope of
5 any given local calling area. Moreover, BellSouth’s local calling areas may
6 be subject to substantial changes as BellSouth and its competitors seek
7 competitive advantages for their respective local service offerings. More
8 fundamentally, interconnection based solely on BellSouth’s local calling
9 areas does not foster competition and does not benefit consumers. To
10 interconnect based on BellSouth’s local calling areas would completely
11 disregard the legitimacy of a competitor’s local calling areas, would
12 discourage competitors from expanding local calling areas for the benefit of
13 customers and competition, and certainly would not be reciprocal. Moreover,
14 using BellSouth’s local calling areas as the basis of network interconnection
15 substantially compromises the network efficiencies of the alternative network
16 architectures deployed by AT&T, forcing AT&T into an inefficient
17 BellSouth-look-a-like interconnection arrangement, and forcing ALEC
18 customers to bear the burden of those inefficiencies.

19
20 **Q. IS AT&T IMPROPERLY ATTEMPTING TO SHIFT FACILITY**
21 **COSTS FROM AT&T TO BELLSOUTH FOR AT&T’S CUSTOMERS’**
22 **TRAFFIC THAT TERMINATES ON BELLSOUTH’S NETWORK?**

23 A. No. AT&T believes that it is responsible for the costs to originate, transport
24 and terminate its traffic. Accordingly, AT&T proposes that it should provide

1 (either lease or build) all of the facilities for its originating traffic between the
2 AT&T switch and the POI selected by AT&T and that AT&T should
3 compensate BellSouth for any transport and switching functions provided by
4 BellSouth for the completion of AT&T's traffic in the form of reciprocal
5 compensation. Regardless of any claims by BellSouth to the contrary, AT&T
6 agrees to bear the full financial costs of its traffic.

7 Contrary to AT&T's fair, reciprocal and lawful position, BellSouth is trying
8 to shift its interconnection facility costs to AT&T. BellSouth retains the vast
9 majority of end users and the revenue these customers produce, yet BellSouth
10 seeks to avoid compensating AT&T for AT&T's costs in terminating traffic
11 from BellSouth's end-users. This provides BellSouth with an unlawful
12 competitive advantage. Accordingly, the Commission should reject the
13 BellSouth proposal and adopt the AT&T proposal.

14

15 **Q. BUT DOESN'T THE BELLSOUTH PROPOSAL REFLECT THE**
16 **ADDITIONAL COSTS THAT BELLSOUTH MUST INCUR TO**
17 **PROVIDE FACILITIES FROM ITS LOCAL CALLING AREA TO**
18 **THE AT&T SWITCH?**

19 A. No. The BellSouth proposal is nothing more than an anticompetitive
20 proposal to unilaterally designate interconnection points for
21 BellSouth-originated traffic. If BellSouth designates interconnection points
22 at end offices some distance from the AT&T point of presence, the

1 intercarrier compensation will not be symmetrical. Indeed, BellSouth's
2 proposal confirms the FCC's conclusion that:

3 Because an incumbent LEC currently serves virtually
4 all subscribers in its local serving area, an incumbent
5 LEC has little economic incentive to assist new
6 entrants in their efforts to secure a greater share of that
7 market. An incumbent LEC also has the ability to act
8 on its incentive to discourage entry and robust
9 competition by not interconnecting its network with
10 the new entrant's network or by insisting on
11 supracompetitive prices or other unreasonable
12 conditions for terminating calls from the entrant's
13 customers to the incumbent LEC's subscribers.⁴

14

⁴ First Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Red. 1J499 (1996) at ¶ 10 (footnote omitted), hereinafter "FCC Local Competition Order".

1 **Q. HOW DOES THE ACT APPLY TO THIS ISSUE?**

2 A. Prior to the passage of the Act, unless a call was directed to the operating
3 territory of another local carrier, the originating carrier was responsible for
4 the costs of originating, transporting and terminating each call, simply
5 because the call never left the originating carrier's territory or network.
6 Consistent with the originating carrier's overall financial responsibility, the
7 originating carrier collected and retained the applicable revenue.
8 With the passage of the Act, the originating carrier continues to collect and
9 keep the local exchange revenue, and where a competing LEC is used to
10 terminate the call (because the terminating customer belongs to a competing
11 LEC), the Act establishes reciprocal compensation to compensate the
12 terminating carrier for its costs. However, in so doing, the Act did not alter
13 the long-standing economic model under which the originating carrier
14 collects the local exchange revenue and is responsible for the costs of
15 originating, transporting and terminating its traffic. Section 252(d)(2)(A) of
16 the Act states:

17 ... a state commission shall not consider the terms and
18 conditions for reciprocal compensation to be just and
19 reasonable unless... such terms and conditions provide
20 for the mutual and reciprocal recovery by each carrier of
21 costs associated with the transport and termination on
22 each carrier's network facilities of calls that originate on
23 the network facilities on the other carrier.

1 If the parties have unequal interconnection obligations, as proposed by
2 BellSouth, then the parties should have non-symmetrical reciprocal
3 compensation rates, so that each party would recover its respective costs to
4 transport and terminate the other party's traffic. To meet the "just and
5 reasonable" test under Section 252(d)(2)(A), the parties must have
6 comparable obligations to deliver traffic to the other party's network. If it is
7 found that one party to the Agreement is not compensated for "costs
8 associated with the transport and termination on each carrier's network
9 facilities of calls that originate on the network facilities on the other carrier",
10 then the resulting Agreement would be neither "just" nor "reasonable".

11

12 **Q. IF AT&T CHOOSES TO PLACE ONE SWITCH PER LATA,**
13 **SHOULDN'T BELLSOUTH BE ALLOWED TO PLACE ITS**
14 **INTERCONNECTION POINT AT ITS DESIRED LOCATION?**

15 A. No. The Act and FCC orders clearly allow new entrants to interconnect at
16 any technically feasible point. The single switch presence per LATA allows
17 new entrants to grow their business economically without having to duplicate
18 the ILECs existing network. If Congress had wanted ILECs to have the
19 ability to designate interconnection points and ALECs to bear the same duty
20 in establishing interconnection points that incumbent LECs have, it would
21 have specifically stated that outcome, rather than separating out the
22 interconnection obligations to apply only to incumbent LECs under Section
23 251(c)(2).

1 Q. HAS THE FCC PROVIDED ANY GUIDANCE ON THIS ISSUE?

2 A. Yes. This issue has two sub-parts. First, should BellSouth have the right to
3 designate the point on BellSouth's network within its own local calling area
4 where it will deliver its local and intraLATA traffic to AT&T? Second, how
5 should the costs of Interconnection Facilities be allocated between the
6 parties? The FCC has spoken on both of these issues.

7

8 Q. DO EXISTING FCC RULES ALLOW BELLSOUTH TO DISIGNATE
9 THE POINT ON ITS NETWORK WHERE AT&T MUST ACCEPT
10 BELLSOUTH'S TRAFFIC?

11 A. No. FCC regulations do not allow BellSouth or any ILEC the right to
12 designate the point at which the other party must "pick up" the ILEC's
13 traffic. To the contrary, Rule 51.305(a)(2) obligates BellSouth to allow
14 interconnection by an ALEC at any technically feasible point. In its Local
15 Competition Order, the FCC explained:

16 The interconnection obligation of section 251(c)(2),
17 discussed in this section, allows competing carriers to
18 choose the most efficient points at which to exchange
19 traffic with incumbent LECs, thereby lowering the
20 competing carriers' costs of, among other things,
21 transport and termination of traffic.⁵

22

⁵ FCC Local Competition Order at ¶ 172 (emphasis added).

1 The FCC identified the Act as the source of these differing obligations:

2 Section 251(c)(2) does not impose on non-incumbent LECs
3 the duty to provide interconnection. The obligations of LECs
4 that are not incumbent LECs are generally governed by
5 sections 251(a) and (b), not section 251(c). Also, the statute
6 itself imposes different obligations on incumbent LECs and
7 other LECs (i.e., section 251(b) imposes obligations on all
8 LECs while section 251(c) obligations are imposed only on
9 incumbent LECs).⁶

10

11 **Q. DOES THE FACT THAT THERE IS NO PROHIBITION AGAINST**
12 **ILECS DETERMINING TECHNICALLY FEASIBLE**
13 **INTERCONNECTION POINTS GIVE THEM THE RIGHT TO DO**
14 **SO?**

15 A. No. As noted above, the interconnection obligations of LECs and ILECs are
16 specifically identified in the Act. BellSouth may not assume some authority
17 that is not provided for in the Act. BellSouth has claimed in other
18 proceedings that its should be permitted to designate the point where AT&T
19 must pick up BellSouth's traffic so that BellSouth may avoid the transport
20 costs at issue. However, the FCC's statement is clear. The competing carrier
21 has the right to designate the point at which traffic is exchanged, "thereby

⁶ Id. at ¶ 220.

1 lowering the competing carriers' costs.” The FCC reiterated its reasoning in
2 connection with an interconnection dispute in Oregon, where the FCC
3 intervened and urged the court to reject US West’s argument that the Act
4 requires competing carriers to interconnect in the same local exchange in
5 which it provides local service. The FCC explained:

6 Nothing in the 1996 Act or binding FCC regulations
7 require a new entrant to interconnect at multiple locations
8 within a single LATA. Indeed, such a requirement could-
9 be so costly to new entrants that it would thwart the Act’s
10 fundamental goal a opening of opening local markets to
11 competition.⁷

12 More recently, in its order on SBC’s 271 application for Texas, the FCC made clear
13 its view that under the Telecommunication Act, ALECs have the legal right to
14 designate the most efficient point at which to exchange traffic. As the FCC
15 explained:

16 New entrants may select the most efficient points at which
17 to exchange traffic with incumbent LECs, thereby lowering
18

⁷ Memorandum of the FCC as *Armucis 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 added).

1 the competing carriers' cost of, among other things,
2 transport and termination.⁸

3 The FCC was very specific:

4 Section 251, and our implementing rules, require an
5 incumbent LEC to allow a competitive LEC to interconnect
6 at any technically feasible point. This means that a
7 competitive LEC has the option to interconnect at only one
8 technically feasible point in each LATA.

9

10 **Q. WHAT HAS THE FCC PROVIDED ON HOW COSTS OF**
11 **INTERCONNECTION FACILITIES SHOULD BE ALLOCATED**
12 **BETWEEN THE PARTIES?**

13 A. 47 C.F.R. § 51.703(b) very clearly provides:

14 A LEC may not assess charges on any other telecommunications carrier for
15 local telecommunications traffic that originates on the LEC's network.

16 Further, 47 C.F.R. § 51.709(b) reads:

17 The rate of a carrier providing transmission facilities
18 dedicated to the transmission of traffic between two
19 carriers' networks shall recover only the costs of the

20

⁸ 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).

1 proportion of that trunk capacity used by an
2 interconnecting carrier to send traffic that will terminate
3 on the providing carrier's network.

4 In its Local Competition Order, the FCC explained:

5 The amount an interconnecting carrier pays for dedicated
6 transport is to be proportional to its relative use of the
7 dedicated facility. For example, if the providing carrier
8 provides one-way trunks that the inter-connecting carrier
9 uses exclusively for sending terminating traffic to the
10 providing carrier, then the inter-connecting carrier is to pay
11 the providing carrier a rate that recovers the full forward-
12 looking economic cost of those trunks. The inter-
13 connecting carrier, however, should not be required to pay
14 the providing carrier for one-way trunks in the opposite
15 direction, which the providing carrier owns and uses to
16 send its own traffic to the inter-connecting carrier.⁹

17 A simple hypothetical example should make the application of this rule clear.
18 If there were a sufficient volume of traffic between an AT&T switch and a
19 certain BellSouth end office, AT&T would elect to establish one-way trunks
20 between the two switches to deliver AT&T's originating traffic. The least
21

⁹ FCC Local Competition Order at ¶ 1062 (emphasis added).

1 costly method for AT&T to obtain the transport needed for such trunks may
2 be to lease the capacity from BellSouth as dedicated transport. BellSouth
3 would also need to establish one-way trunks between the same two switches
4 for its originating traffic. BellSouth almost certainly will establish such
5 trunks on its own facilities. What we end up with is a single BellSouth
6 facility system between the AT&T and BellSouth switches that is used to
7 carry both AT&T's one-way trunks and BellSouth's one-way trunks. What
8 the FCC is saying in C.F.R. 51.709(b) is that BellSouth may only recover the
9 cost of the proportion of that trunk capacity used by AT&T between the two
10 switches to send traffic that will terminate on BellSouth's network. AT&T
11 agrees that it would pay for the transport for its one-way trunks. However,
12 contrary to 47 C.F.R. 51.709(b), what BellSouth proposes is to recover the
13 costs of both AT&T's portion *and* the costs of the proportion of that trunk
14 capacity used by BellSouth to send traffic that will terminate on AT&T's
15 network. This would be especially onerous to AT&T when the volume of
16 traffic originated on BellSouth's network far exceeds the volume of traffic
17 that is originated on AT&T's network.

18 The situation is identical when AT&T elects to route traffic via a BellSouth
19 tandem switch rather than via direct end office trunks. Again, AT&T agrees
20 to pay BellSouth for the one-way trunk capacity needed to transport AT&T's
21 traffic between the AT&T switch and the BellSouth tandem, however, AT&T
22 should not be required to pay BellSouth for one-way trunks in the opposite
23 direction, which BellSouth owns and uses to send its own traffic to AT&T.

1 **Q. HAS THE FCC ISSUED ANY DECISIONS ON THIS ISSUE?**

2 A. Yes. In *In re TSR Wireless, LLC, et. al., v. U.S. West*, file Nos. E-98-13, et.
3 al., FCC 00-194 (June 21, 2000), several paging carriers alleged that US
4 West and other ILECs had improperly imposed charges for facilities used to
5 deliver LEC-originated traffic. The paging carriers based their complaint on
6 47 C.F.R. § 51.703(b) and sought an order from the FCC prohibiting the
7 ILECs from charging for dedicated and shared transmission facilities used to
8 deliver LEC-originated traffic. The FCC agreed with the paging carriers. In
9 its Order, after finding (1) that paging carriers provide telecommunications
10 and are thus included within the scope of the rules governing reciprocal
11 compensation (47 C.F.R. § 701(e)) and (2) that paging carriers “switch” and
12 “terminate” traffic within the meaning of those rules, the FCC determined
13 that “any LEC efforts to continue charging CMRS or other carriers for
14 delivery of such [LEC-originated] traffic would be unjust and unreasonable.”
15 Accordingly, the FCC concluded that the ILECs “may not impose upon
16 Complainants charges for the facilities used to deliver LEC-originated traffic
17 to Complainants.”

18
19 **Q. WHY SHOULD THE COMMISSION ADOPT AT&T’S SOLUTION?**

20 A. AT&T’s network interconnection solution would benefit AT&T, BellSouth
21 and Florida consumers in the following ways:

1 **1. AT&T's solution is fair to both parties.**

2 First, both parties would establish equivalent interconnection between the
3 respective networks. Neither party would gain a substantial advantage over
4 the other, as BellSouth proposes. Second, both parties would provide
5 interconnection facilities in proportion to the interconnection traffic that it
6 delivers to the other party. Considering the geographic parity of both parties'
7 networks, it would clearly be unfair to AT&T to adopt the practice of
8 disproportional, unequal interconnection.

9 **2. AT&T's solution promotes competition.**

10 AT&T's proposal allows competing callers to use alternative network
11 architecture without any penalty. Additionally AT&T's proposal does not
12 require ALECs to duplicate the network already established by BellSouth.
13 Less costly and more efficient solutions are promoted, not discouraged.

14 **3. AT&T's solution provides flexibility to the parties.**

15 Each party would have a variety of methods that it may employ to deliver its
16 traffic to the other party's terminating switch. Parties can lease facilities
17 from one another, they can lease facilities from third parties, implement a
18 mid-span meet, or they can deliver their traffic using AT&T's facilities.
19 Under AT&T's proposal, even though not obligated to do so, AT&T is even
20 willing to offer BellSouth space, power, and site services in its switching
21 centers, compensated appropriately, so that BellSouth may use its own
22 facilities to deliver its interconnection traffic to such AT&T locations. In this

1 way, each party may determine for itself the most efficient method of
2 interconnection under the terms of the Agreement.

3 **4. AT&T's solution allows AT&T to use scarce collocation space for**
4 **interconnection to UNEs.**

5 BellSouth's proposed interconnection arrangement jeopardizes AT&T's local
6 market entry plans, because it allows BellSouth to "hand-off" its traffic at a
7 BellSouth location that may have limited or no additional collocation space.
8 AT&T has found that the smaller AT&T collocation arrangements in certain
9 BellSouth end offices are being prematurely exhausted by the transport of
10 BellSouth's interconnection traffic through such collocation space. AT&T
11 requires collocation space within BellSouth end offices so that AT&T may
12 interconnect to BellSouth's UNEs in order to fulfill its market entry plans.
13 Because of this dual need for collocation space, BellSouth's proposal forces
14 AT&T to choose between essential uses of scarce collocation space; where
15 there is an equal priority on using collocation space for network
16 interconnection and UNE combination. The result of BellSouth's proposal is
17 that in many areas AT&T's local market entry may be delayed or thwarted.
18 AT&T's solution provides for a joint transition plan that would require that
19 BellSouth's interconnection traffic to be transitioned from any existing POI
20 in jeopardized AT&T collocation space to a new POI. The Commission
21 should adopt AT&T's network interconnection solution, because, otherwise,
22 consumers served by a BellSouth end office for which AT&T's collocation

1 space is exhausted would not enjoy the same level of local exchange
2 competition as customers in unaffected areas.

3 **5. AT&T's solution is consistent with law and regulation.**

4 The FCC has made clear that ILECs do not have the right to determine where
5 ALECS must interconnect to pick up ILEC traffic. ALECs can interconnect
6 at any technically feasible point, and can select a point which is most
7 efficient to lower costs. AT&T's proposal clearly meets these requirements.

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II. TANDEM SWITCH RATE

ISSUE 12

Q. WHAT DO THE FCC REGULATIONS PROVIDE ABOUT ALEC SWITCHES AND TANDEM RATES?

A. The FCC recognizes that there is parity between a competitive carrier’s end office switch and an ILEC tandem switch. The FCC regulations, 47 C.F.R. § 51.711 (a)(3), provide:

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.

Q. HAS THE FCC PROVIDED ANY ADDITIONAL GUIDANCE REGARDING THE ESTABLISHMENT OF TRANSPORT AND TERMINATION RATES?

A. Yes, it has. In the Local Competition Order, the FCC stated:

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

1 rates in the arbitration process that vary according to
2 whether the traffic is routed through a tandem switch or
3 directly to the end-office switch. In such event, states shall
4 also consider whether new technologies (*e.g.*, fiber ring or
5 wireless networks) perform functions similar to those
6 performed by an incumbent LEC's tandem switch and thus,
7 whether some or all calls terminating on the new entrant's
8 network should be priced the same as the sum of transport
9 and termination via the incumbent LEC's tandem switch.
10 Where the interconnecting carrier's switch serves a
11 geographic area comparable to that served by the
12 incumbent LEC's tandem switch, the appropriate proxy for
13 the interconnecting carrier's additional costs is the LEC
14 tandem interconnection rate.¹⁰
15

16 **Q. DO AT&T'S SWITCHES IN FLORIDA COVER A GEOGRAPHIC**
17 **AREA COMPARABLE TO THE AREA COVERED BY BELLSOUTH**
18 **SWITCHES?**

19 A. Yes. AT&T offers local exchange service in Florida via 4ESS switches,
20 which function primarily as long distance switches, and 5ESS switches,
21 which act as adjuncts to the 4ESS switches. AT&T has the ability to connect

¹⁰ FCC Local Competition Order at ¶ 1090 (emphasis added).

1 virtually any qualifying local exchange customer in Florida to one of these
2 switches through AT&T's dedicated access services.

3 TCG provides local exchange services using Class 5 switches. TCG is able
4 to connect virtually any customer in a LATA to the TCG switch serving that
5 LATA either through (1) TCG's own facilities built to the customer premises,
6 (2) UNE loops provisioned through collocation in BellSouth end offices, or
7 (3) using dedicated high-capacity facilities (in special access services or
8 combinations of UNEs purchased from BellSouth).¹¹

9 AT&T requests that the Commission order BellSouth to pay AT&T
10 BellSouth's tandem interconnection rate for the termination of local traffic at
11 any AT&T Communications switch and any TCG switch. AT&T is justified
12 in its request because the geographic area covered by each switch is
13 comparable to the area covered by BellSouth's tandem switches.

14

15 **Q. HAVE YOU PREPARED ANY MATERIALS THAT WILL ASSIST**
16 **THE COMMISSION IN DETERMINING THE GEOGRAPHIC**
17 **COVERAGE OF AT&T'S AND TCG'S SWITCHES?**

18 **A.** To assist the Commission in understanding this issue, I have prepared a series
19 of maps that are marked as Exhibit DLT-6. Exhibit DLT-6 contains both

¹¹ AT&T and TCG are separate legal entities, are separately certified in Florida, and should be treated as separate entities under the completed agreements. Moreover, their local service networks provide entirely distinct services and products to distinct classes of customers and are not integrated in any way. Accordingly, each entity should be examined separately for purposes of determining whether that entity meets the requirements under 47 C.F.R. § 51.711 (A)(3).

1 color transparency maps and color copies (of the same maps). The
2 transparent maps are supplied so that the reader can “overlay” the maps and
3 compare the geographic area served by AT&T and TCG switches and
4 BellSouth switches.

5 Exhibit DLT-6a¹² provides the number of switches AT&T currently operates
6 in Florida on a LATA by LATA basis. It is important to note that in some
7 cases, the AT&T switch serving a LATA is not physically located in the
8 LATA.

9 Exhibit DLT-6b¹³ shows the number of switches TCG currently operates in
10 Florida on a LATA by LATA basis. Like AT&T’s switches, it is important
11 to note that in some cases, the TCG switch serving a LATA is not physically
12 located in the LATA.

13 Exhibit DLT-6c¹⁴ shows the number of tandem switches BellSouth Florida
14 currently operates in Florida on a LATA by LATA basis. When 6a, 6b, and
15 6c are superimposed over each other, it becomes clear that both AT&T’s and
16

¹² On the AT&T maps, green shading depicts the areas covered by AT&T’s switches.

¹³ On the TCG maps, blue shading depicts the areas covered by TCG’s switches.

¹⁴ On the BellSouth maps, various color shading depicts areas covered by BellSouth’s tandems.

1 TCG's switches cover the same (or a comparable) geographic area as that
2 covered by BellSouth's tandem switches.¹⁵

3

4 **Q. WHAT ABOUT THE FUNCTIONALITY OF THE SWITCHES?**

5 A. The relevant FCC rule does not focus on tandem functionality¹⁶ for purposes
6 of determining whether an ALEC meets the requirements under 47 C.F.R. §
7 51.711(a)(3). However, each AT&T and TCG switch performs certain
8 tandem functions for the respective AT&T entity. First, each of these
9 switches acts as an access tandem routing the preponderance of interLATA
10 traffic directly to the applicable interexchange carrier. Second, with respect
11 to traffic between any AT&T customer and any BellSouth customer within
12 the same LATA, AT&T has direct trunking to each BellSouth tandem in the
13 LATA so that such traffic may be completed without transiting multiple
14 AT&T switches or multiple BellSouth tandems. In other words, AT&T uses

¹⁵ Statewide and LATA-specific maps were created by using data contained in the Local Exchange Routing Guide (LERG). The LERG, produced by Telcordia Technologies, contains routing data that supports the current local exchange network configuration within the North American Numbering Plan (NANP) as well as identifying reported planned changes in the network. The LERG data in conjunction with MapInfo V-4.1.1.2, a commercial mapping software package, was used to prepare the state-wide and LATA-specific maps attached herein.

¹⁶ The primary function of a tandem is the aggregation of traffic between customers calling outside their immediate exchange. As described in the preceding discussion of network architecture, the BellSouth network is comprised of a large number of end offices each serving a relatively small area. Rather than connect every end office to every other end office, BellSouth routes certain traffic to tandem switches which serve groups of end offices. Thus, a call from a BellSouth customer to someone in another rate center often will travel to a tandem switch which has a connection to the end office switch serving the called customer. Under the BellSouth network architecture, the tandem switches aggregate traffic to be sent to other switches. Under AT&T's network architecture, AT&T's switches also

1 its switches in the same functional manner that BellSouth uses its tandem
2 switches.

3

4 **Q. DO AT&T'S SWITCHES PROVIDE TANDEM FUNCTIONALITIES**
5 **IN THE MANNER DESCRIBED IN THE FCC'S DISCUSSION IN**
6 **THE LOCAL COMPETITION ORDER?**

7 A. As the foregoing description of AT&T switch function indicates, AT&T's
8 switches do indeed perform both end office and tandem switch functions.
9 Tandem switches generally aggregate traffic from a number of end office
10 switches for purposes of passing that traffic to other offices for termination
11 elsewhere on the network. The tandem switch is also used for aggregation
12 and processing of operator services traffic, routing traffic that is to be
13 transferred between the trunk groups of two separate carriers, and measuring
14 and recording traffic detail for billing. While BellSouth employs two
15 separate switches to accomplish these tandem and end office functions; as I
16 have shown above, AT&T's switches perform all of these functions within
17 the same switch.

18 Thus, AT&T and TCG have not only met the geographic requirements of 47
19 C.F.R. §51.711(a)(3), but also meets a higher standard by virtue of its
20 substantial investments in physical plant and deployment of an architecture
21 comprised of network components comparable to BellSouth.

perform a substantial amount of traffic aggregation and, therefore, are performing
the primary function of a tandem switch.




1 The Commission should, therefore, conclude that AT&T should receive the
2 tandem interconnection rate as BellSouth's reciprocal compensation for the
3 termination of its local calls by AT&T and TCG.

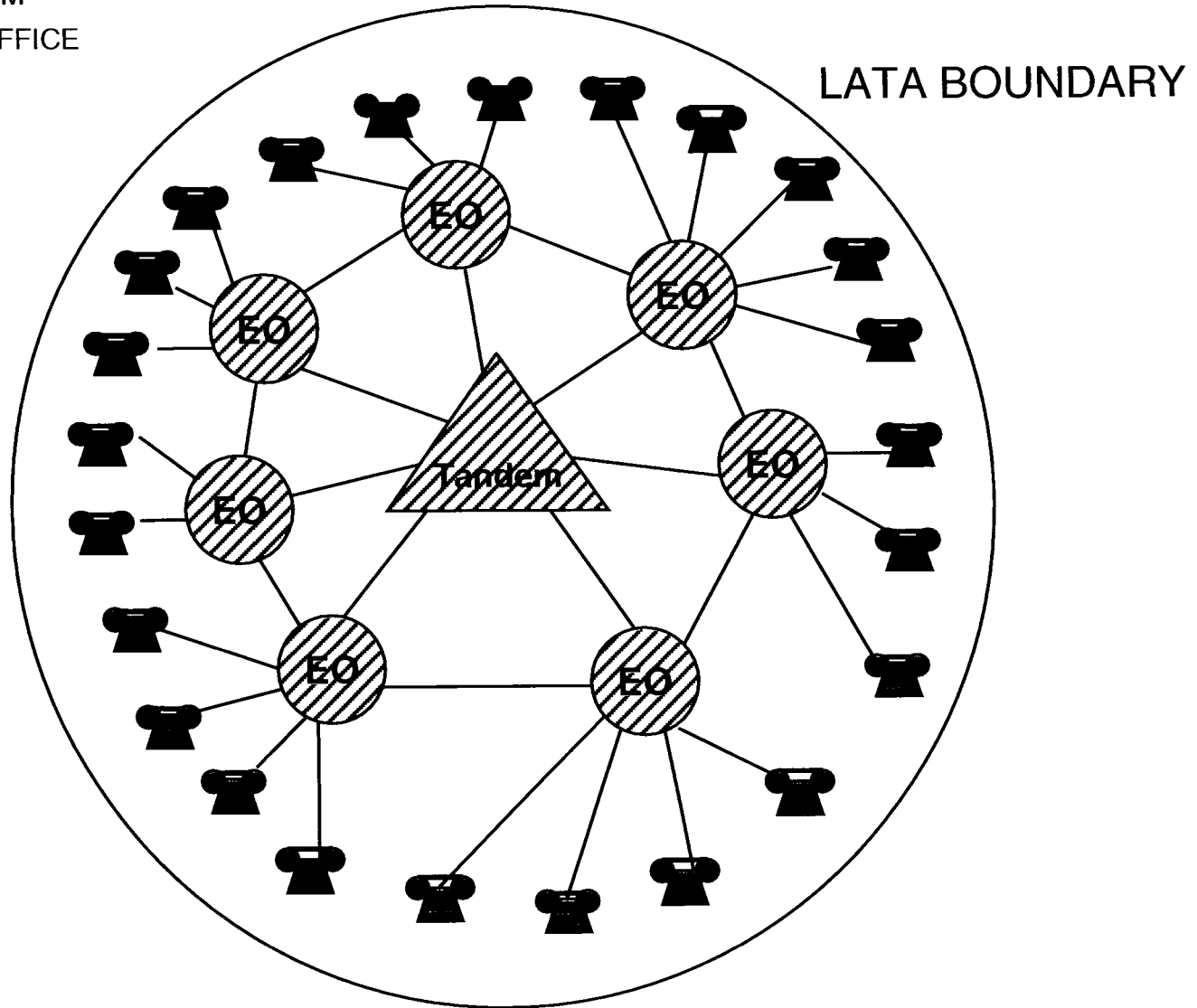
4

5 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

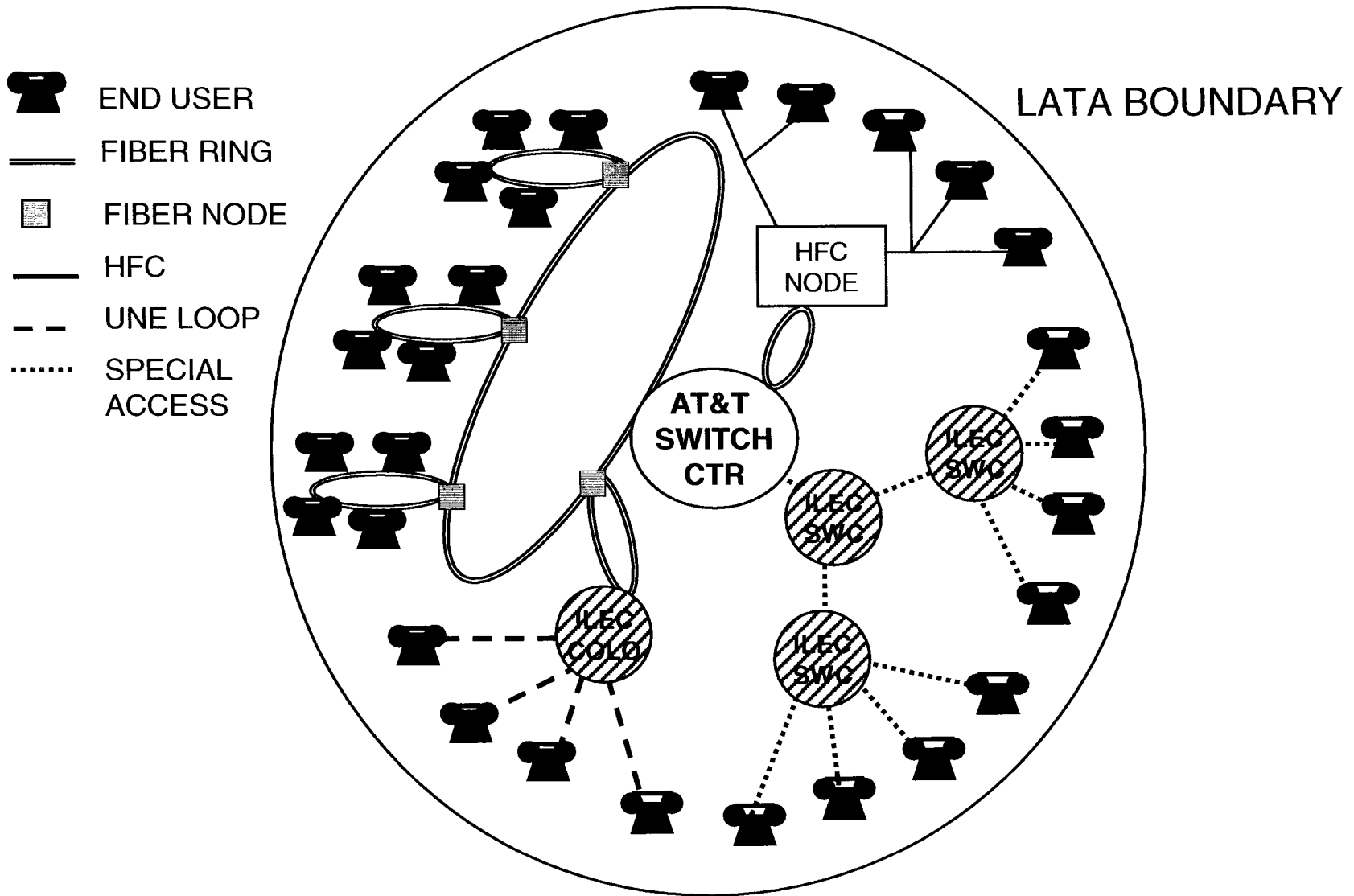
6 **A. Yes.**

ATTACHMENT 1 - BST NETWORK ARCHITECTURE

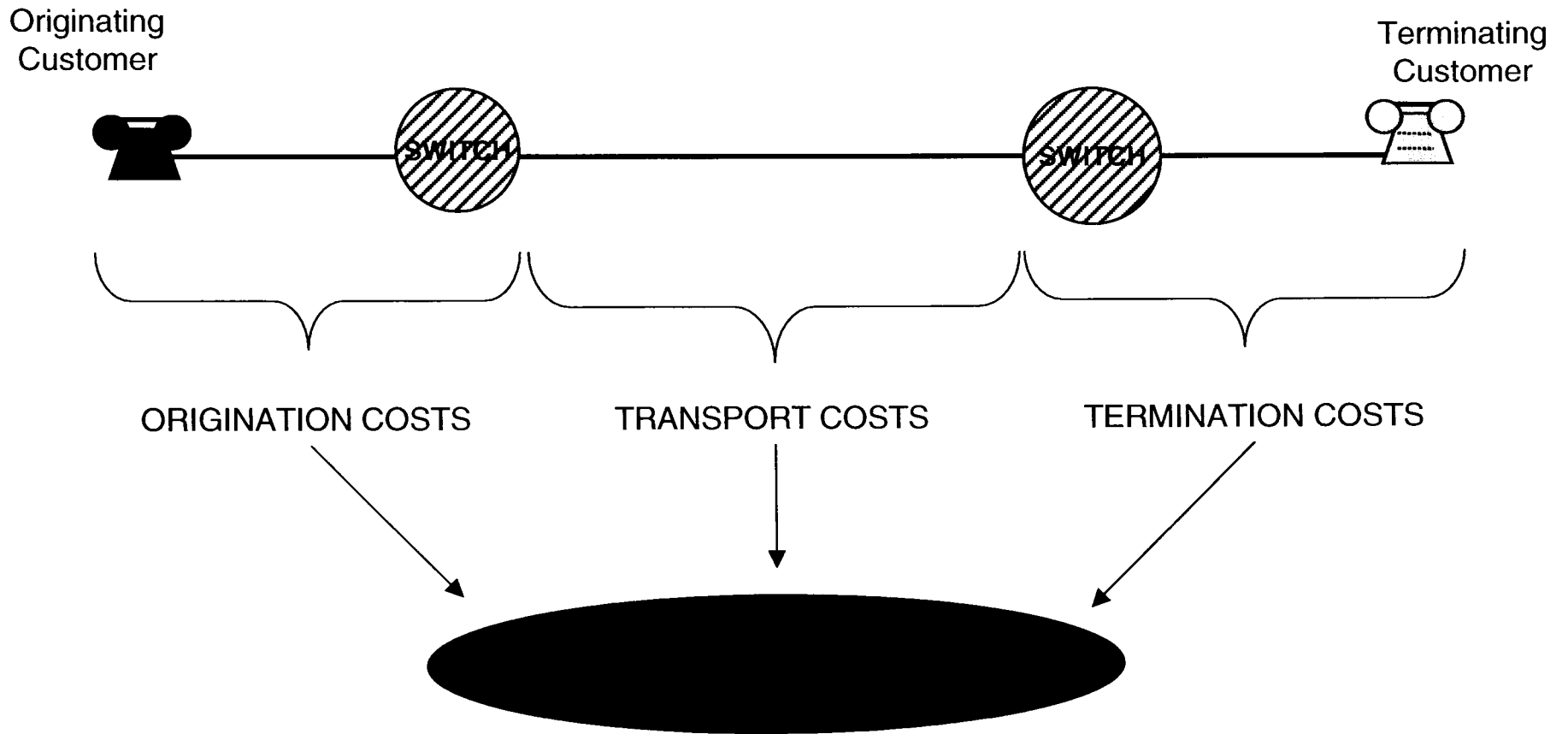
-  = BST TANDEM
-  = BST END OFFICE
-  = END USER



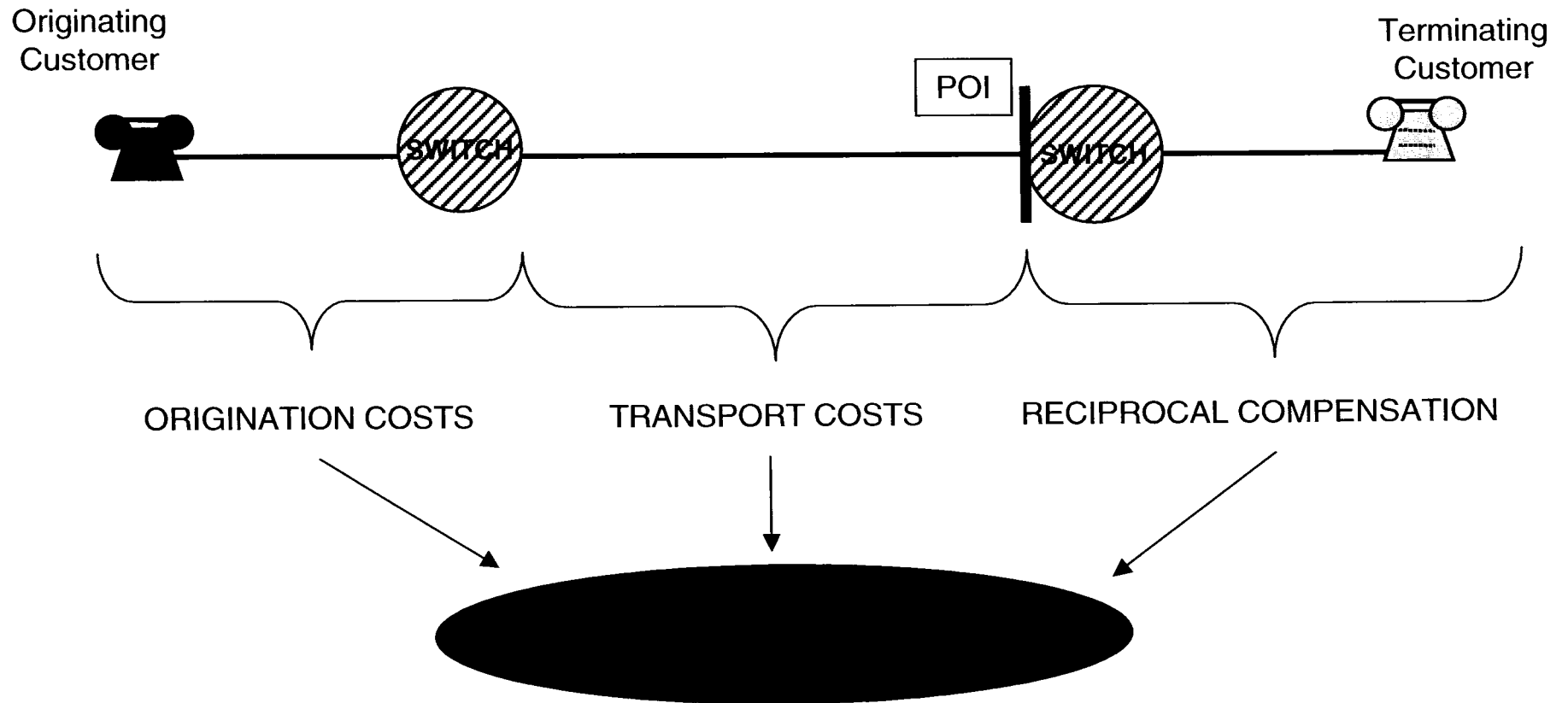
ATTACHMENT 2 - AT&T NETWORK ARCHITECTURE



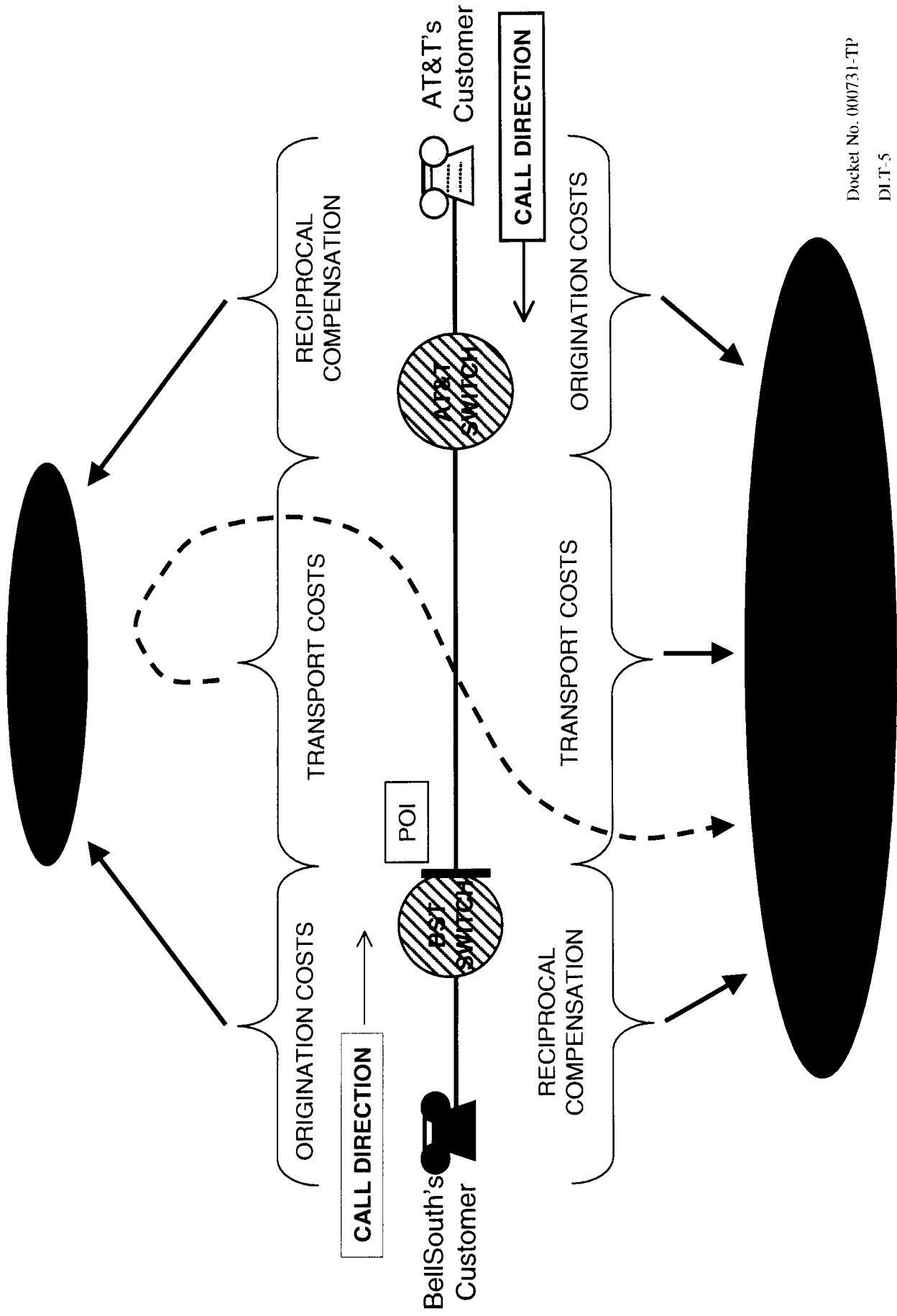
ATTACHMENT 3 - PRE-TRA COST MODEL



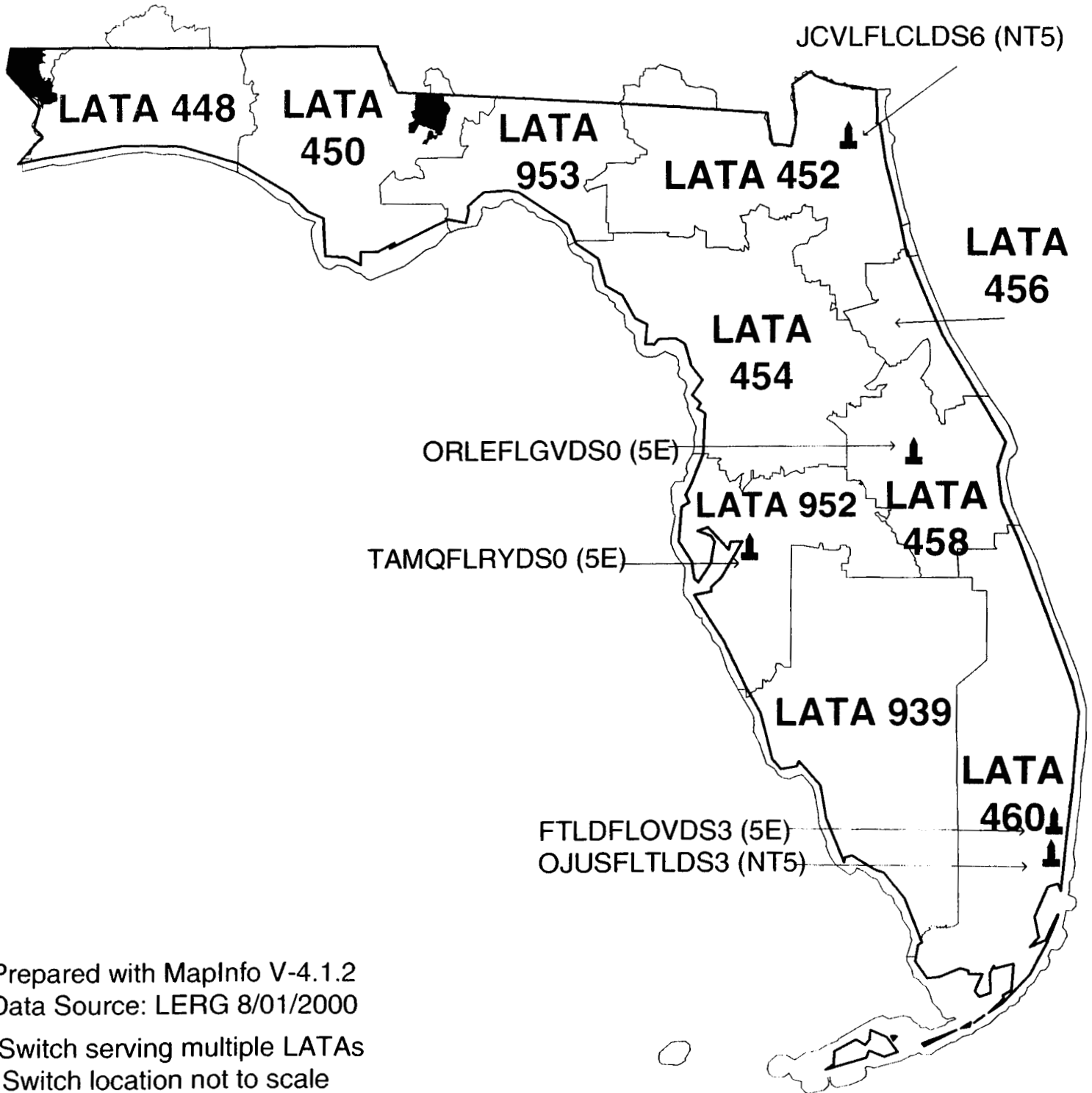
ATTACHMENT 4 - TRA COST MODEL AND AT&T PROPOSAL



ATTACHMENT 5 - BELLSOUTH PROPOSAL



TCG Switches Serving Florida



Prepared with MapInfo V-4.1.2
 Data Source: LERG 8/01/2000

* Switch serving multiple LATAs
 # Switch location not to scale

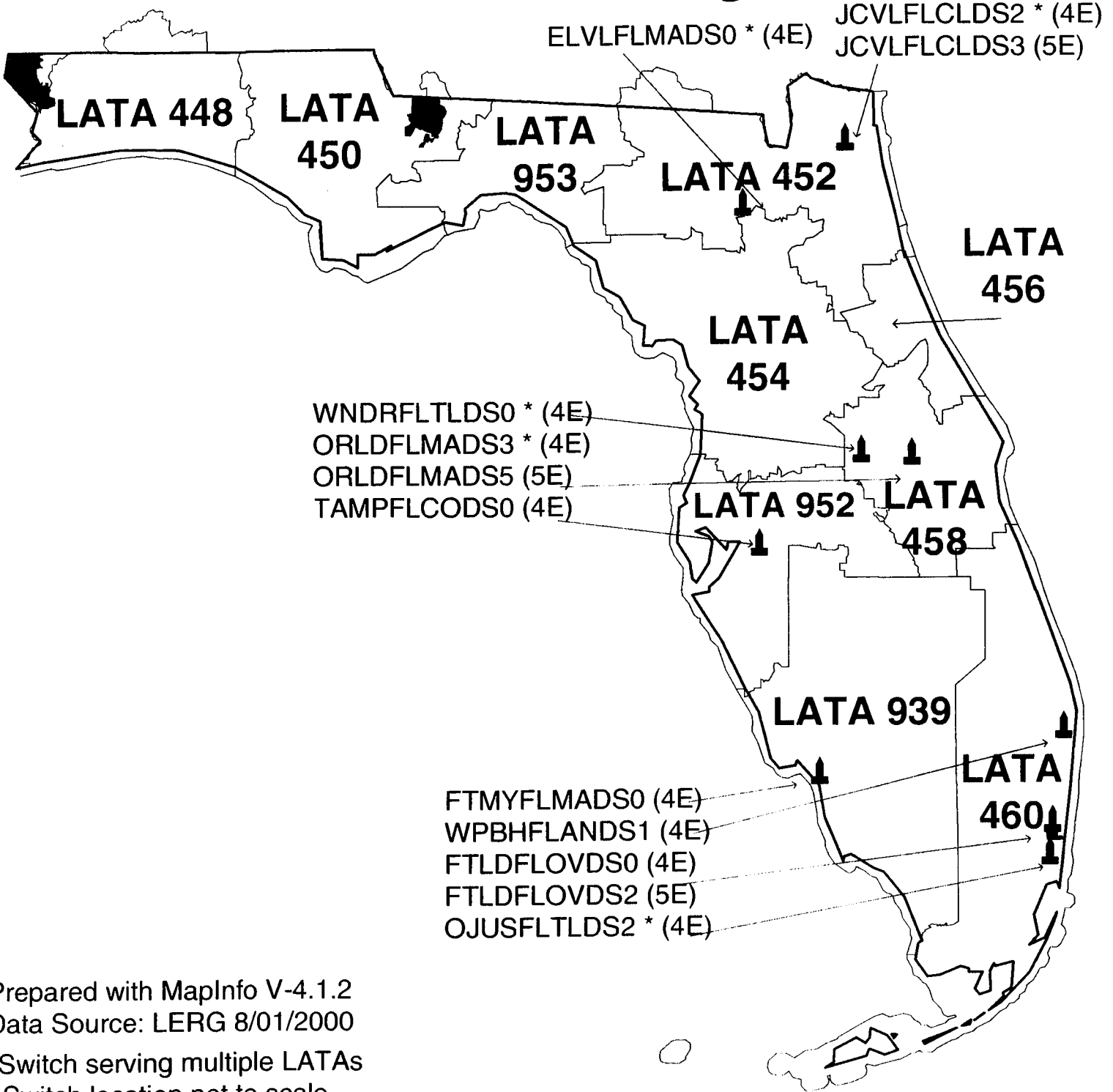
Geographic Area's Served by TCG

Geographic Area's NOT Authorized to provide Serviced by TCG

↓ MTGMALMTDS1 *# (4E)

↓ MACNGAGADS0 *# (4E)

AT&T Switches Serving Florida



WNDRFLTLDSD0 * (4E)
 ORLDFLMADS3 * (4E)
 ORLDFLMADS5 (5E)
 TAMPFLCODSD0 (4E)

FTMYFLMADS0 (4E)
 WPBHFLANDS1 (4E)
 FTLDFLOVDS0 (4E)
 FTLDFLOVDS2 (5E)
 OJUSFLTLDSD2 * (4E)

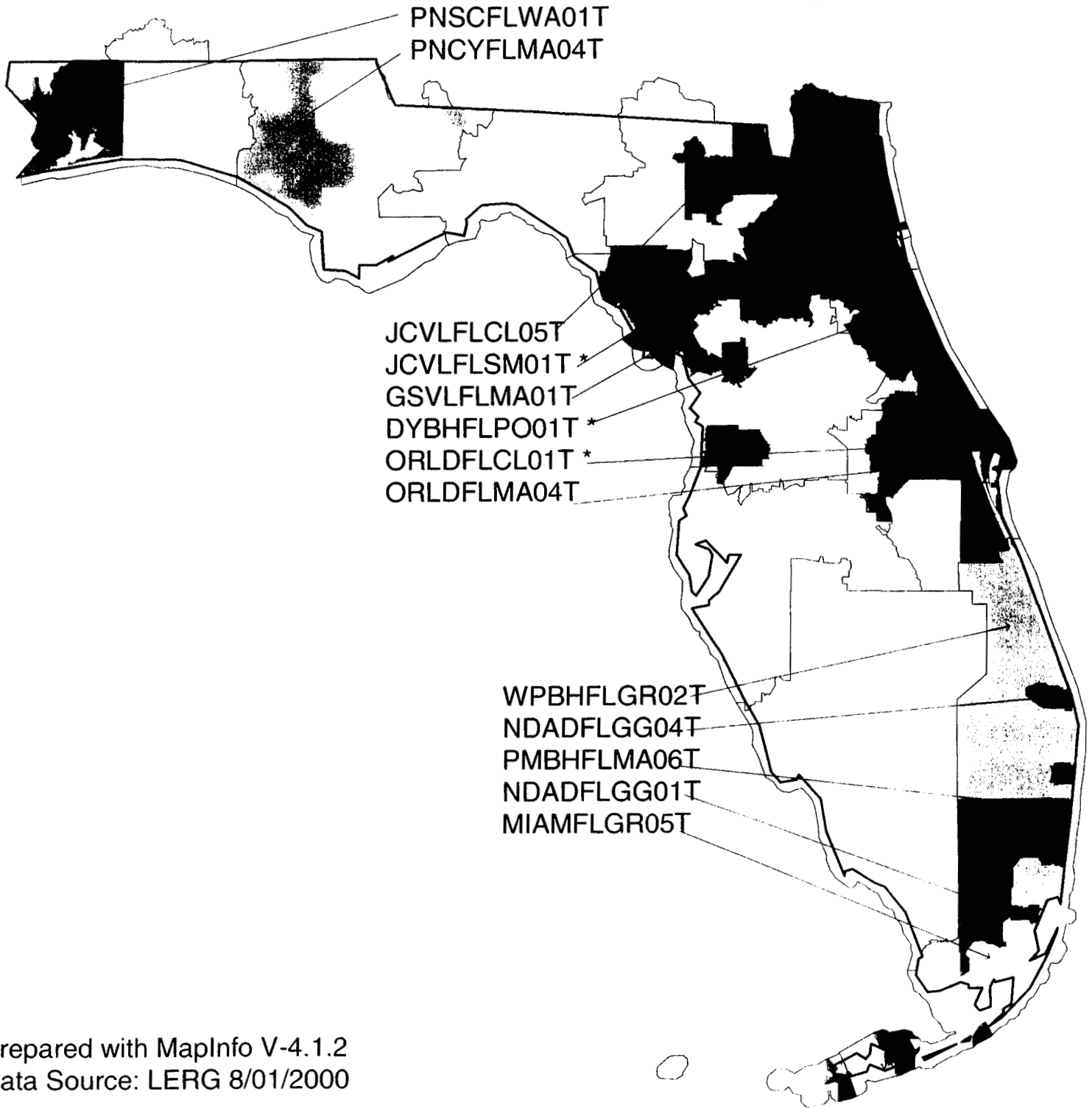
Prepared with MapInfo V-4.1.2
 Data Source: LERG 8/01/2000

* Switch serving multiple LATAs
 # Switch location not to scale

Geographic Area's Served by AT&T

Geographic Area's NOT Authorized to provide Serviced by AT&T

BellSouth Tamdems Serving Florida



Prepared with MapInfo V-4.1.2
Data Source: LERG 8/01/2000

* Switch serving multiple LATAs
Switch location not to scale