In the context of shared transport – where Ameritech provides transit between *Ameritech* local switches (albeit purchased as ULS) and CLEC switches -- the case for mandatory transit is even stronger. The "very essence" of shared transport is providing CLECs access to the scale economies of the interoffice network, with calls routed to their termination in accordance with the standard routing tables in the end-office switch. To an even greater degree than that which justified the Commission conclusion above, requiring transit as a mandatory component of shared transport is vital to avoiding "fine distinctions between types of traffic" that would simply "create inefficiencies, raise costs and erect barriers to competition."

IV. The Appropriate Treatment of "New" Combinations

Q. Please explain the issue concerning "new" network combinations.

A. The "new combinations" issue provides a clear example of why the Illinois Commission should exercise its full authority over local competition in Illinois. The basic concern is whether Ameritech will agree to provide combinations to serve customers that have either recently moved to a new building, or are adding lines. Because of a sequence of appellate review that I will not explain in detail here, the full suite of FCC rules concerning network element combinations is not currently in effect. Ameritech is attempting to exploit this situation by claiming that it has no legal obligation (at least under federal rules) to offer network

element combinations (i.e., a loop and a switch port) unless they are already physically interconnected and working for a particular customer.

Q. Does Ameritech offer any policy justification for its position?

A. No, none at all. Ameritech's entire argument is of the "you can't make me" variety.[35] Nowhere does Ameritech even attempt to explain *why* the Illinois Commission should sanction its refusal to offer all standard combinations; much less has it attempted to demonstrate how Illinois consumers would benefit from its proposal.

Mass-market competition depends upon *efficient* provisioning systems structured to minimize cost and accommodate volume. This same basic conclusion applies with equal force to what Ameritech refers to as "*new* combinations" as it does to *existing* arrangements. Consumers will not benefit from policies that make local competition more complex, more cumbersome and more expensive. If the Commission wants competition for average consumers, then it must be committed to policies that make entry more simple and cost-effective.

[35] See Ameritech Illinois Exhibit 3.0 (Alexander), page 8.

Q. Do you intend to "legally brief" how the Illinois Commission can require Ameritech to combine elements that it routinely and ordinarily combines for itself?

A. No. The basic message of my testimony concerns *why* the Commission should order Ameritech to combine elements for entrants in the same manner that it routinely and ordinarily combines such elements for itself. As to the legal issue, I will note that other States have generally adopted one of two approaches.

The first simply *interprets* the existing FCC rule to apply to combinations that are already in existence (which Ameritech will not dispute), as well as combinations that are not yet in existence, but which the ILEC ordinarily combines (which Ameritech opposes).[36] Alternatively, states have relied upon their own authority to require that ILECs offer so-called "new" combinations. Which states have chosen which strategy – and extensive case history in support of each approach -- is more appropriate for briefing.

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[36] This view is easy to understand when the FCC's rules are read together. Rule 315(b), which is in effect, clearly obligates the ILEC to offer any combination that it currently combines, while 315(c), which has been vacated, refers to combinations that are not ordinarily combined:

> §51.315(b) -- Except upon request, an incumbent LEC shall not separate requested network elements that the ILEC currently combines.
>
> § 51.315(c) --Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not ordinarily combined in the incumbent LEC's network …

Before the Commission addresses this legal question, however, it is critical to understand just how important this issue is in its effect on local competition.

Q. Why is the issue of "new" combinations so important?

A. The simple answer is that consumers and businesses frequently add lines and change locations. If this process is made complex and expensive, then Ameritech will successfully disadvantage its rivals by increasing the cost of competitive alternatives.

Consider the following statistics. According to the US Census, nearly 16% of the population moved in 1998.[37] In addition, businesses are constantly adding and deleting locations. Data for Illinois suggests that nearly 21% of all business locations open or close in a year. Any strategy that artificially inflates the cost to serve such a mobile population – and this is the clear intent of Ameritech's proposal to refuse offering "new combinations" – will harm both competition and consumers.

[37] Specifically, 15.9% of the population moved between March 1998 and March 1999. Source: Geographic Mobility Update, US Census Bureau, June 2000.

Locational Volatility in the Business Market
Illinois (1995-96)[38]

Industry Category	Number of[39] Establishments	Births	Deaths	Percent Opened or Closed in Year
Construction	22,881	3,139	2,722	26%
Manufacturing	17,883	1,194	1,190	13%
Trans., Comm.,& Utilities	11,746	2,636	1,398	34%
Wholesale	23,246	1,946	1,937	17%
Retail	60,341	6,168	6,193	20%
Finance, Insurance & Realty	26,680	3,243	2,564	22%
Services	94,699	10,426	8,329	20%
Non-Classified	443	292	362	148%
	257,919	29,044	24,695	21%

Q. If Ameritech does not combine these elements for entrants, how does it propose new entrants would serve such customers?

A. As I understand Ameritech's proposal, Ameritech would construct new "combination areas" in its central offices for the sole purpose of relegating CLEC "combinations" to these areas. It is with this "alternative" that the absurdity in Ameritech's position becomes most apparent.

Remarkably, rather that simply combining elements for entrants at those points in the network (such as existing cross-connect frames) that Ameritech has established for precisely this purpose, Ameritech is proposing to create new

[38] Source: US Census Bureau (http://blue.census.gov/epcd/ssel_tabs/view/tab9_58.html).

[39] The Census Bureau defines an "establishment" as a single physical location where business is conducted or where services or industrial operations are performed.

environments where entrants would do the same work. Under Ameritech's proposal, entrants would combine elements in collocation space, or use assembly "rooms" or "points" specially constructed for this purpose. These additional steps – creating the assembly room/point, and then extending requested elements via new facilities and additional cross-connections – does nothing but create increased cost and additional points of potential failure.

Importantly, even Ameritech itself would do "more combining" by cross-connecting the requested elements to the facilities necessary to extend the elements to the CLEC, not to mention the cost -- in time, money and space – to create the associated "assembly areas." Expending resources for the sole purpose of achieving a less reliable and more costly environment is a wasteful exercise that can find no support in economics, common sense or sound policy.

Q. Are you saying the Ameritech is proposing a system that would even increase the work that Ameritech performs?

A. Yes. Consider the practical reality here. A customer moves into a new home and an entrant requests the combination (loop and port) needed to serve them. Under the approach I recommend, Ameritech would be required to combine these elements as it routinely does today for its own retail services. Once combined, then even Ameritech would agree that the combination would be available to

other competitors – including Ameritech – so that the customer could easily change local carriers in the future. Simple system, low cost, greater competition.

In contrast, under Ameritech's proposal, Ameritech would extend these same elements (loop and port) to a *different* location in the central office (such as the entrant's collocation space or an "assembly room/point") where they would then be cross-connected by the CLEC. The result: higher costs and additional points of failure. Moreover, under Ameritech's approach, if the customer sought to change carriers in the future, then the entire exercise of manually reconfiguring the requested combination to a different "assembly frame" would need to be repeated – at least until the customer has moved to Ameritech. Even if the customer moves back to Ameritech, additional unnecessary work is required, when compared to connecting the elements properly in the first instance.

Finally, it is useful to remember that Ameritech cannot ultimately prevent entrants from gaining access to the combinations they seek. Ameritech can only (if allowed) impose costs that are unnecessary. For instance, an entrant seeking to add a second line can order the line as a retail service (or resold service), and then migrate that combination to UNEs the next day. It makes no sense to create a system that doubles the work for every party involved – ILEC, CLEC and, undoubtedly, the customer itself. Every unnecessary step injects additional opportunity for failure, and a cost that is a dead-weight loss to the economy.

Ameritech should be required – either through interpretation of 315(b) or, preferably, under the Illinois Commission's own authority – or both – to combine any requested element that it ordinarily combines for itself.[40]

V. OS/DA Transport

Q. Are there any other issues you would like to address?

A. Yes. The FCC has recently concluded that there may be competitive alternatives to the ILEC's OS and DA services available to CLECs. My understanding is that Ameritech intends to withdraw the availability of OS and DA on the allegation that entrants can use "custom routing" to direct this traffic to alternative providers.

Q. Do you disagree that OS/DA services can be obtained from providers other than Ameritech?

A. No, not as a *theoretical* matter. The issue is not whether OS and DA can be obtained from alternative sources. Rather, the issue concerns whether OS and DA

[40] It is worth recalling that the Commission initially adopted its UNE Platform policies under its independent authority in a decision that never drew a distinction between "new" and "existing" combinations.

traffic can be efficiently *delivered* to other providers so that entrants have a meaningful choice.

Q. Does Ameritech provide the necessary "custom routing" so that UNE-P based entrants can efficiently direct their operator and directory traffic to an alternative provider?

A. No, I do not believe that it does. To begin, the term "custom routing" in this context is something of a misnomer. Generally, "custom routing" implies a request by an entrant for specialized treatment of some category of traffic. There is nothing "specialized," however, with respect to this application. UNE-P providers need a known, reliable and efficient mechanism to deliver a specific type of traffic – OS and DA traffic – to another carrier.

It is critical that the method of "custom routing" actually provides UNE-P entrants a meaningful opportunity to use the services of an alternative provider. UNE-P based entrants are unique (among other forms of local entry) because they establish a customer base across a broad geographic footprint, leasing capacity in switches across Ameritech's territory. This means that the UNE-P providers' OS/DA traffic is similarly *distributed* throughout a region, and must be aggregated in order to use an alternative to the ILEC.

As I understand Ameritech's approach, it is requiring that UNE-P providers obtain custom routing at *each* end-office – in effect, forcing the UNE-P provider to duplicate an interoffice network exclusively for OS/DA traffic. Such an arrangement would preclude the UNE-P provider from having an economic alternative to any provider other than Ameritech. Consequently, given no *practical* alternative to the ILEC's OS/DA service, the UNE-P provider must have an ability to purchase these services from Ameritech at cost-based rates.

Q. What do you recommend?

A. The Commission should make clear that the mere filing of paper tariffs that *claim* Ameritech is capable of efficiently routing OS/DA traffic to third-party providers of OS/DA service is not sufficient to remove Ameritech's OS/DA unbundling requirement. Before Ameritech can be relieved of its obligation to offer OS and DA as unbundled network elements, the Commission must be assured that entrants have a meaningful opportunity to obtain these functions elsewhere. Determining this must require that Ameritech demonstrate, through actual network operation, that it is able to efficiently route OS/DA traffic to other providers.

Moreover, it is important to make sure that entrants are able to route their OS/DA traffic without having to establish dedicated OS/DA trunk groups at each individual end-office. Entrants should be able to establish OS/DA trunk groups at

a single point-of-interconnection in the LATA, or at the very least rely on shared/common transport to aggregate such traffic at Ameritech's tandems. Further, entrants should be able to commingle the traffic on existing FG trunk groups for traffic efficiency if they desire.

While either method may be explored in a further proceeding, the Commission should prohibit Ameritech from imposing any "custom routing" solution that requires entrants establish trunk groups at every end-office. A UNE-P based entrant would likely have customers at *every* central office. If required to establish a dedicated OS/DA network across this entire footprint, the cost of this extreme inefficiency could render the entry strategy uneconomic. In the meantime, the Commission should confirm Ameritech's obligation to provide OS and DA as unbundled network elements at cost-based rates.

Q. Does this conclude your testimony?

A. Yes.

DOCKET NO. 20745

COMPLAINT OF BIRCH TELECOM OF TEXAS, LTD., L.L.P. AND ALT COMMUNICATIONS, L.L.C. AGAINST SOUTHWESTERN BELL TELEPHONE COMPANY FOR REFUSAL TO PROVIDE INTRALATA EQUAL ACCESS FUNCTIONALITY	§	PUBLIC UTILITY COMMISSION OF TEXAS

DOCKET NO. 20755

COMPLAINT OF SAGE TELECOM, INC. AGAINST SOUTHWESTERN BELL TELEPHONE COMPANY FOR VIOLATING UNBUNDLED NETWORK ELEMENTS PROVISIONS OF THE INTERCONNECTION AGREEMENT	§	PUBLIC UTILITY COMMISSION OF TEXAS

ARBITRATION AWARD

I. Introduction

A. Summary of Proceedings

The federal Telecommunications Act of 1996[1] (FTA) requires that when an incumbent local exchange carrier (ILEC) and a new local service provider (LSP) are unable to negotiate the terms and conditions of Interconnection Agreements, either of the negotiating parties "may petition a State commission to arbitrate any open issues."[2] The Public Utility Commission of Texas (Commission) is the state commission responsible

[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, (codified as amended in scattered sections of 15 and 47 U.S.C.)(FTA).

[2] FTA § 252(b)(1).

SCHEDULE
EXHIBIT JPG-01

for arbitrating disputes pursuant to the FTA.[3] Moreover, the Commission is the state commission responsible for implementing the Interconnection Agreements entered into between ILECs and LSPs pursuant to the FTA.[4] The Commission anticipated it would be called upon to resolve disputes implementing interconnection agreements and promulgated dispute resolution rules to establish procedures for resolving disputed issues under or pertaining to interconnection agreements.[5]

On April 15, 1999, Birch Telecom of Texas, LTD., L.L.P. and ALT Communications, L.L.C. (Birch/ALT[6]) filed a complaint and request for expedited ruling against Southwestern Bell Telephone Company (SWBT) for refusal to provide intraLATA[7] equal access functionality[8]. On April 16, 1999, Sage Telecom, Inc. (Sage) filed a complaint and request for expedited ruling against SWBT for allegedly violating unbundled network element (UNE) provisions of the Sage-SWBT Interconnection Agreement. These complaints revolve around the routing and compensation for intraLATA toll calls placed by customers of Sage and Birch/ALT, both UNE-based competitive local exchange carriers (CLECs), after intraLATA dialing parity is implemented. The complaints were precipitated by a proposal contained in a SWBT

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[3] The Commission has the authority to conduct the FTA arbitrations pursuant to FTA § 252 and §§ 14.001, 52.001-002, 60.001-003, and 60.121-128 of Public Utility Regulatory Act, TEX. UTIL. CODE ANN. §§ 11.001-63.063 (Vernon 1998) (PURA).

[4] *Iowa Utilities Board. v. Federal Communications Commission*, 120 F.3d 753 (8th Cir. July 18, 1997), reversed in part, 119 S. Ct. 721 (1999).

[5] P.U.C. Proc. R. 22.321-22.328 (establishing procedures for Commission resolution of disputed issues arising under or pertaining to interconnection agreements approved by the Commission pursuant to its authority under the FTA).

[6] Birch Telecom purchased ALT Communication [*see* Tr. at 48 (July 13, 1999)]. For purposes of convenience, the new entity will be referred to as Birch/ALT.

[7] An intraLATA call is a call that traverses the local calling area boundaries but does not cross the Local Access and Transport Area (LATA). An interLATA call crosses both local calling area and LATA boundaries.

[8] IntraLATA equal access is defined as the ability of a caller to complete an intraLATA toll call using his or her provider of choice by dialing "1" or "0" plus an area code and a telephone number. [P.U.C. SUBST. R. 26.5 (relating to Definitions).]

Accessible Letter dated April 6, 1999 to change the routing of Birch/ALT and Sage intraLATA toll calls. SWBT responded to the complaints on April 22 and April 23, 1999, respectively. The Commission's arbitration panel in this docket is composed of two Commission staff members: D. Diane Parker and Meena Thomas (Arbitrators). The members of the panel, with the assistance of Commission staff advisors, conducted the arbitration in accordance with the Commission's dispute resolution rules.

On April 23, 1999, the Arbitrators met with representatives from SWBT, Birch/ALT, and Sage to discuss consolidation of the dockets, a procedural schedule, and an interim solution to the complaints of Sage and Birch/ALT, pending a hearing on the merits. In Order No. 3, issued on April 26, 1999, the Arbitrators ordered SWBT to suspend the proposal requiring a change in the routing of intraLATA toll calls outlined in its April 6 Accessible Letter until the issuance of a final decision. The dockets were consolidated and a procedural schedule was set in Order No. 4, issued on April 26, 1999.[9]

The parties met privately during May 1999 to attempt to narrow issues raised in the original complaints, but were not successful in resolving their disputes. Consequently, Sage, Birch/ALT, and SWBT filed testimony on the disputed issues.[10] In response to the testimony, the Arbitrators issued Order No. 7 on July 9, 1999, requiring additional information from all parties. A hearing on the merits was held on July 13, 1999. Post -hearing briefs were filed in late July.

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[9] Both Sage and Birch/ALT have adopted the SWBT-AT&T Interconnection Agreement pursuant to FTA Section 252(i). Therefore, all of the relevant contract provisions apply equally to both CLECs. Any reference in the award to the generic term "interconnection agreement" should be understood to apply to both CLECs.

[10] SWBT filed its direct testimony separately in Docket Nos. 20745 and 20755. As the two testimonies are identical [*see* Tr. at 14 (July 13, 1999)], the Arbitrators will cite to the Direct Testimony of Rachel Bernstein submitted in Docket No. 20755 (dated June 15, 1999).

The FTA limits the issues to be decided in an arbitration to those set forth by the parties in the petition and response.[11] This Arbitration Award resolves the disputed issues presented for arbitration between SWBT, Birch/ALT, and Sage.

B. Structure of the Award

The Arbitrators believe that the issues outlined in the parties' joint Decision Point List ("DPL") boil down to six categories of disputed issues:

- Routing of intraLATA toll calls (DPL Issues 1 and 4);
- Routing of intraLATA toll calls to the intraLATA primary interexchange carrier (DPL Issue 5);
- IntraLATA dialing functionality (DPL Issues 2 and 3);
- Requirement for a carrier identification code (DPL Issue 10);
- Compensation for intraLATA toll calls (DPL Issues 6 and 7); and
- The procedure for informing SWBT of a CLEC's customer intraLATA Primary Interexchange Carrier choice (DPL Issues 8 and 9).

[11] FTA § 252(b)(4).

II. Decisions on Issues Presented for Arbitration

A. DPL Issue Nos. 1 and 4

DPL Issue No. 1: In a post-intraLATA dialing parity environment, does the interconnection agreement require that 1 + intraLATA calls initiated by Birch/ALT or Sage end user customers be routed and transported in the same way that 1 + interLATA calls are routed and transported?

DPL Issue No. 4: Is SWBT required to provide intraLATA toll functionality to and in parity with its provision of intraLATA toll to its end user customers?

1. Parties' positions

SWBT argues that, in a post-intraLATA dialing parity environment, 1+intraLATA calls initiated by Birch/ALT or Sage end user customers should be routed and transported in the same way 1+interLATA calls are routed and transported. SWBT bases its answer on section 5.2.2.2.1.2 in Appendix Pricing – UNE of the interconnection agreement,[12] which states:

> After the implementation of intraLATA Dialing Parity, intraLATA toll calls from [CLEC] ULS Ports will be routed to the end user intraLATA Primary Interexchange Carrier (PIC) choice. When an interLATA toll call is initiated from an ULS port it will be routed to the end user interLATA PIC choice.

SWBT interprets DPL Issue No. 4 to discuss parity between customers. SWBT maintains that after implementing dialing parity "...Birch/ALT's and Sage's end users may now select Birch/ALT or Sage as their intraLATA toll carrier of choice for direct

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[12] SWBT's Post-Hearing Brief at 4 – 5 (July 22,1999).

dialed calls, just as they may select from among numerous other carriers."[13] and "[Birch/ALT customers] will continue to dial the same number of digits they did prior to dialing parity."[14] During the hearing on the merits, SWBT broadened its answer to DPL Issue No. 4, claiming that SWBT handles its own intraLATA toll calls at parity with Birch/ALT and Sage. SWBT argued that it routes SWBT intraLATA calls to its own point of presence (POP) (i.e., SWBT tandem), just as Birch/ALT and Sage should do after implementing dialing parity.[15]

Sage, on the other hand, claims that section 5.2.2.2.1.2 in Appendix Pricing – UNE merely confirms SWBT's obligation to route toll calls to the appropriate PIC, but does not require that the physical routing and transport of intraLATA and interLATA calls be handled identically.[16]

In response to DPL Issue No. 4, Birch/ALT cites Section 2.4 in attachment UNE of the interconnection agreement, which reads: "SWBT will provide [CLEC] access to unbundled Network Elements provided for in this Attachment, including combinations of Network Elements, without restriction."[17] Birch/ALT also relies on Section 2.4.1 in the same attachment, which states "...[When a CLEC orders UNEs in combination] SWBT will provide the requested elements with all the functionality, and with at least the same quality of performance..., that SWBT provides through its own network to its local exchange service customers receiving equivalent service..."[18]

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[13] Rebuttal Testimony of Rachel Bernstein at 6 (June 24, 1999).

[14] *Id.* at 9.

[15] SWBT's Reply Brief at 7 (July 28, 1999).

[16] Direct Testimony of Gary P. Nuttall at 15-16 (June 15, 1999).

[17] Direct Testimony of Sean Minter at 6 (May 3, 1999).

[18] *Id.* at 9.

Sage and Birch/ALT claim that they currently provide intraLATA service to their end use customers using a combination of UNEs and, therefore, should be able to use this combination of network elements, in parity with SWBT's use of them, after dialing parity is implemented.[19]

2. Discussion

The routing of intraLATA calls can be accomplished in a variety of ways. The diagram in Appendix A illustrates several options for routing an intraLATA call originated at element No. 1 (originating loop and local switch) and terminating at element No. 5 (terminating loop and local switch). Referring to this diagram, some of the options for routing intraLATA calls, as discussed during the hearing on the merits are:

1. Using elements 1, 9 and 5;[20]
2. Using elements 1, 2, 3, 4 and 5;[21]
3. Using elements 1, 2, 3, 6A, the non-SWBT tandem, 6B, 3, 4 and 5;[22] or
4. Using elements 1, 7, the non-SWBT tandem, 8 and 5.[23]

Technical feasibility is a key consideration in evaluating routing options. During the hearing on the merits, none of the parties testified that any of the routing scenarios presented above was not technically feasible. However, both Sage and Birch/ALT did testify that some of the elements appearing in the diagram do not exist in actual practice; they pointed out that not a single interexchange carrier (IXC), including AT&T, has direct

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[19] Rebuttal Testimony of Sean Minter at 6-7 (May 3, 1999); Direct Testimony of Gary P. Nuttall at 14-15 (June 15, 1999).

[20] Tr. at 265 (July 13, 1999).

[21] *Id.* at 116.

[22] *Id.* at 133-134.

[23] *Id.* at 114-115.

trunking from its tandem to every end office in the LATA.[24] However, it should be pointed out that the lack of trunking to every end office is arguably related primarily to cost considerations, rather than to technical infeasibility.

An important consideration related to, but slightly different from, technical feasibility, is network failure probability. As was mentioned on the record numerous times, the more elements used in routing a call, the greater the possibility of network failure.[25]

Another consideration in evaluating routing options is the cost-efficiency of the routing scheme. The FCC has ruled that limiting a CLEC's access to UNEs by requiring the CLEC to own or build its facilities would diminish competition.[26] Allowing an entrant to take full advantage of the ILEC's economies of scale and scope would promote a rapid and efficient entry and result in a more robust competition.[27] In the Third Order on Reconsideration, the FCC addressed specifically the issue of routing, stating:

> By requiring incumbent LECs to provide requesting carriers with access to the incumbent LEC's rounting (*sic*) table and to all its interoffice transmission facilities on an unbundled basis, requesting carriers can route calls in the same manner that an incumbent routes its own calls and thus take advantage of the incumbent LEC's economies of scale, scope, and density.[28]

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[24] *Id.* at 230.

[25] *Id.* at 265-266; 272-273.

[26] *Implementation of the Local Competition Provisions in the Telecommunication Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325 at ¶340 (rel. Aug 8, 1996). (First Report and Order).

[27] *Id.*

[28] *Implementation of the Local Competition Provisions in the Telecommunication Act of 1996*, CC Docket No. 96-98, Third Order on Reconsideration and Further Notice of Proposed Rulemaking, FCC 97-295 at ¶2 (rel. Aug 18, 1997). (Third Order on Reconsideration).

In the pre-dialing parity environment, Sage and Birch/ALT routed their intraLATA toll calls using elements 1 through 5 (routing option 2 above).[29] SWBT routed its intraLATA traffic identically. This is the most efficient and failure-proof way for SWBT to route its intraLATA traffic. Similarly, the CLEC has the benefit of utilizing the ILEC's economies of scale.

But, according to SWBT, in a post-dialing parity environment, the interconnection agreement requires CLECs to route their intraLATA traffic in a different manner. SWBT contends that an intraLATA call carried by a CLEC should be either transported from SWBT's tandem to a non-SWBT tandem (via element 6A in Appendix A) or, alternatively, transported directly from the originating end office to a non-SWBT tandem (via a direct trunk, element 7 in Appendix A).[30] From the non-SWBT tandem, SWBT offers analogous routing schemes to the terminating end office. From the non-SWBT tandem the call can be routed to the terminating end office either using element 6B, 3 and 4 or using element 8 (routing options 3 and 4 above).

An analysis of SWBT's proposed routing scheme leads to certain conclusions. First, while SWBT's proposed routing scheme is technically feasible, that is not to say that all requisite elements, such as direct trunking to each end-office, are actually in place today; technically speaking, however, these elements *could* be added. Nevertheless, SWBT's proposed routing scheme introduces additional elements for the routing of intraLATA calls and, therefore, increases the probability of network failure or performance degradation. The introduction of elements 6A and 6B (entrance facilities), and the non-SWBT tandem to the network,[31] increases the risk that a CLEC's intraLATA call routed through these elements could not be completed if any single element were to

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[29] Response of Sage to Order No. 7 (July 12, 1999); Response of Birch/ALT to Order No. 7 (July 12, 1999). If the direct trunk (element No. 9 in Appendix A) existed in the real-life scenario, the call would be routed using elements 1, 9 and 5 (routing option 1 above). [*See* Tr. at 69-70 (July 13, 1999)].

[30] SWBT Brief 4-5 (July 22, 1999).

[31] See Appendix A, network diagram.

fail.[32] Conversely, an intraLATA call carried by SWBT would not be subject to this risk of failure since it would be routed without using these extra elements. If one compares SWBT's provision of intraLATA toll service through its tandem (elements 2, 3 and 4 in Appendix A), to SWBT's proposal for Sage and Birch/ALT, it becomes evident that Sage and Birch/ALT would be forced to route an intraLATA call using *four more* elements than SWBT would use to route its own call.[33] In contrast to the way SWBT routes its intraLATA traffic using direct trunking (element 9 in Appendix A)[34], under SWBT's scheme, Sage and Birch/ALT would be required to route an intraLATA call using *seven more* elements than SWBT would use: elements 2, 3, 6A and B, non-SWBT tandem, 3 and 4.

Another major flaw in SWBT's routing scheme is that it is in clear violation of the FCC's rules. SWBT's proposed routing protocol results in preventing a CLEC from using SWBT's routing instructions, even though the routing instructions are a feature of the UNE switch port. It is undisputed that the switch port in the originating end office (element 1 in Appendix A) is a UNE. The routing table is clearly a feature of the UNE switch port. The FCC has stated that an ILEC must provide all of the functions associated with a UNE.[35] Specifically, the FCC stated in the Third Order on Reconsideration that a CLEC purchasing a UNE switch port is allowed to access the ILEC's routing table

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[32] Tr. at 264-265 (July 13, 1999).

[33] The shortest way to route an intraLATA call between elements 1 and 5 (*see* Appendix A), according to SWBT's interpretation of the interconnection agreement, is to use elements 7, 8 and the non-SWBT tandem. This approach would involve the same number of elements as SWBT's own intraLATA toll call routing scheme but is not economically efficient. However, the alternative route SWBT imposes on the CLECs would involve four more elements once the call reaches SWBT tandem (element 3): elements 6A and 6B, non-SWBT tandem, and, yet again, element 3.

[34] Tr. at 69-70 (July 13, 1999); SWBT's Reply Brief at 6 (July 28, 1999). In developing a rate for blended transport in the Mega Arbitration, the parties stipulated that 70% of the calls are routed using direct trunking [*see* Tr. at 274-275 (July 13, 1999)].

[35] First Report and Order at ¶292.

resident in the switch and route its traffic in the same manner the ILEC routes its own traffic.[36]

Further, SWBT's interpretation of the routing required for Sage and Birch/ALT calls in a post-dialing parity environment would put additional strain on the SWBT tandem.[37] It is unclear whether the SWBT tandem would be capable of handling the additional load caused by changing the routing of intraLATA traffic to mirror the way interLATA traffic is handled currently. In the event the tandem could not handle the increased volume of calls, traffic going through the SWBT tandem could experience significant blockage.[38] The capacity, or lack thereof, of the tandem, is an issue directly related to integrity of the network.

Moreover, SWBT's proposed routing scheme would cause Sage and Birch/ALT to incur additional costs, as well as subjecting them to delay. Currently, neither Sage nor Birch/ALT have their own tandem switch and the costs of installing such a switch are estimated to be as much as $10 million, even without taking into consideration engineering fees and costs.[39] Furthermore, installing a tandem switch can take up to 18 months.[40]

A less expensive solution for Sage and Birch/ALT would be to enter into an interconnection agreement with a carrier that owns a tandem switch.[41] Nonetheless, contracting with another carrier would still subject Sage and Birch/ALT to additional

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[36] Third Order on Reconsideration at ¶2.

[37] Under the routing scheme involving the non-SWBT tandem, as described above, each intraLATA call carried by a CLEC would be switched twice through the SWBT tandem. In addition, additional trunk terminations would be needed to handle the traffic between the two tandems.

[38] Tr. at 155-157 (July 13, 1999).

[39] *Id.* at 294-296.

[40] *Id.* at 299.

[41] *Id.* at 296-297.

expense and delay. Entering into an interconnection agreement with a carrier that owns a tandem switch, at a minimum, would involve the time necessary to negotiate a contract.[42] Moreover, such an arrangement would require Sage and Birch/ALT to order additional facilities such as transport and switching facilities.[43]

The only way for Sage and Birch/ALT to avoid routing calls through the SWBT tandem and, at the same time, maximize network efficiency, as compared to the routing scheme involving the SWBT tandem, would be to purchase and establish direct trunking between each end office in the LATA to the non-SWBT tandem. This option is efficient from the network standpoint, but is economically inefficient.[44] Although SWBT proposed direct trunking as an option available to Sage and Birch/ALT, the SWBT witness was not aware whether either Sage or Birch/ALT was currently utilizing direct trunking.[45] As the witness for Sage clarified, deploying trunks to more than forty end offices in the LATA is a very expensive economic decision.[46] No IXC, including AT&T, has direct trunking to every end office in the LATA, according to Sage and Birch/ALT.[47]

3. Arbitrators' Ruling

The Arbitrators reject SWBT's position that intraLATA calls have to be routed the same way interLATA calls are routed and require SWBT to provide Sage and Birch/ALT the same routing functionality SWBT provides to itself. The Arbitrators

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[42] *Id.* at 298-299.

[43] *Id.*

[44] By adding elements 7 and 8 and the non-SWBT tandem, Sage and Birch/ALT would create a route identical to SWBT's route that uses elements 2, 3, and 4. This routing scheme is economically burdensome, given Sage's and Birch/ALT's current customer base.

[45] Tr. at 115 (July 13, 1999).

[46] *Id.* at 231.

[47] *Id.* at 230.

conclude that the first sentence in Section 5.2.2.2.1.2 of Appendix Pricing – UNE merely portrays the post-dialing parity scenario in which intraLATA calls would be routed to the customer's intraLATA primary exchange carrier (LPIC)[48]; it does not require that the physical routing and transport of intraLATA and interLATA calls be handled identically. As Sage and Birch/ALT point out, Section 2.4.1 in Attachment 6 requires SWBT to provide the CLEC with all the functionality of a combination of UNEs, similar to what SWBT is providing to itself. Since SWBT is providing and would continue to provide, in a post-dialing parity environment, intraLATA toll service using the same combination of elements, the Arbitrators rule that the Sage and Birch/ALT should be able to get the same functionality from the combination of UNEs they are leasing from SWBT. Furthermore, Section 2.4 in Attachment 6 – UNE requires SWBT to provide Sage and Birch/ALT access to UNEs, including combinations of UNEs, *without restriction*.

Neither Sage nor Birch/ALT is an IXC[49] and there is no provision in the interconnection agreement or in state law, federal law or Commission rules that requires them to become IXCs in order to provide intraLATA toll service to their customers. SWBT's own witness admitted that there is no support in the FTA for SWBT's position that intraLATA calls should be treated as interLATA calls.[50] SWBT's interpretation of Section 5.2.2.2.1.2, dealing with the routing of interLATA calls, creates artificial limitations and is not consistent with the requirements of equal quality in the transmission and routing of telecommunications traffic found in the interconnection agreement and FCC orders. In addition, from a technical standpoint, SWBT's routing requirements are extremely expensive, not efficient and can harm the network performance.

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[48] In order to avoid confusion between the PIC (the carrier of interLATA toll traffic) and the intraLATA PIC (the carrier of intraLATA toll traffic) which can be different entities, the intraLATA PIC will be referred to hereinafter as LPIC.

[49] Tr. at 146 (July 13, 1999).

[50] *Id.* at 106.

Parity is an underlying theme of the interconnection agreement and of both state and federal law. As explained further in the Arbitrators' analysis of DPL Issue Nos. 2 and 3, a CLEC customer and a SWBT customer should be required to dial the same number of digits to place an intraLATA call. Parity, however, does not end there. Sage and Birch/ALT are providing intraLATA toll service using UNEs in a pre-dialing parity environment and can continue to use UNEs to provide intraLATA toll service in a post-dialing parity environment.[51] The issue here is not parity between an ILEC and an IXC but rather between an ILEC and a CLEC.

B. DPL Issue No. 5

DPL Issue No. 5: In a post-dialing parity environment, does the interconnection agreement require SWBT to route all intraLATA toll traffic to the LPIC selected by the end user?

1. Parties' positions

SWBT's position is that after implementing intraLATA dialing parity, all intraLATA toll calls should be routed to the LPIC selected by the end user.[52] SWBT bases this position on Section 5.2.2.2.1.2 in Appendix Pricing – UNE. This section states: "After the implementation of intraLATA Dialing parity, intraLATA toll calls from [CLEC] ULS Ports will be routed to the end user intraLATA Primary Interexchange Carrier (PIC) choice..."

On the other hand, Sage and Birch/ALT claim that Section 5.2.2.2.1.2 applies only to customers who make an affirmative LPIC choice. They assert that P.U.C. SUBST.

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[51] See Arbitrators' ruling on DPL Issue Nos. 6 and 7.

[52] Direct Testimony of Rachel Bernstein at 5-6 (June 15, 1999).

R. 26.275(f)(2)(B) specifically provides that a customer who does not make an affirmative choice defaults to the serving CLEC toll provider.[53] Section 26.275(f)(2)(B) provides:

> An existing customer who does not make a choice for an intraLATA PIC when intraLATA equal access becomes available shall default to the serving CTU [certificated telecommunications utility] for intraLATA 1+ and 0+ calls where the serving CTU is an intraLATA toll provider. Otherwise, the customer shall dial a carrier access code to route his intraLATA toll calls to the carrier of his choice until he or she makes a permanent, affirmative selection for intraLATA 1+ and 0+ calls.

2. Discussion

The Arbitrators reject Birch/ALT's and Sage's argument that a default intraLATA carrier is not considered an LPIC.[54] Section 5.2.2.2.1.2 in Appendix Pricing UNE is very clear on this issue. An intraLATA toll call will be routed to the end user LPIC after the implementation of dialing parity. If a CLEC customer chooses an LPIC or if he makes no choice, on the assumption that he will default to his local carrier, the intraLATA carrier would be the LPIC.

Similarly, the Arbitrators do not agree with SWBT's interpretation of the term LPIC and of its application to the routing issue. Contrary to SWBT's claim,[55] routing an intraLATA call to the LPIC is not the same as routing an interLATA call to a PIC.[56] An interLATA call has to be routed outside the LATA network through an IXC's POP, since

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[53] Direct Testimony of Sean Minter at 10-11 (May 3, 1999); Direct Testimony of Gary Nuttall at 15-16 (June 15, 1999).

[54] Tr. at 301-302 (July 13, 1999).

[55] SWBT Brief at 5 (July 22, 1999).

[56] *See* Arbitrators' analysis on DPL Issues Nos. 1 and 4.

it cannot be done on SWBT's own network.[57] Conversely, intraLATA calls can, and are, currently being routed using SWBT's network in an efficient way.[58]

SWBT's use of the term POP is misleading. The term POP is commonly used in the telecommunication world to denote a very specific situation. A POP is typically considered to be the demarcation point between the networks of the incumbent carrier and the IXC. This demarcation point has generally been associated with the application of an access charge structure.[59] The Arbitrators note that they have rejected SWBT's analogy between interLATA and intraLATA traffic, and that the associated compensation issues will be dealt with in the Arbitrators' analysis of DPL Issue Nos. 6 and 7.

Nothing in the interconnection agreement prohibits Sage and Birch/ALT from using UNEs all the way to the terminating end office, in order to provide intraLATA toll service to their customers.[60] Therefore, they are not obligated to use a POP when routing intraLATA calls.[61] They do, however, utilize tandem switching and common transport as UNEs in routing intraLATA calls. Both tandem switching and common transport are shared facilities[62] and can be purchased as UNEs or combination of UNEs by Sage and

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[57] Section 271(a) in the FTA states: "Neither a Bell operating company, nor any affiliate of a Bell operating company, may provide interLATA services, except...". Since SWBT have not yet been granted entry to the interLATA market according to the same section, interLATA calls cannot be completed using SWBT network at this time.

[58] *See* Arbitrators' ruling on DPL Issues Nos. 1 and 4.

[59] When a call is routed back from the IXC network to the incumbent network, access charges apply.

[60] *See* Arbitrators' analysis of DPL Issue Nos. 6 and 7.

[61] A CLEC may have a POP for routing intraLATA toll calls. This is an economic decision that is available to the CLEC. (*See* Arbitrators' analysis on DPL Issues Nos. 1, 4 and 10.)

[62] Tandem switching is defined as "the basic switching ***function*** of connecting trunks to trunks" (emphasis added, see Section 6.1 in Attachment 6). Common Transport is defined as "a ***shared*** interoffice transmission path" (emphasis added, *see* Section 8.1.1 in Attachment 6)

Birch/ALT. As a result, the POP, a demarcation point between the networks, does not apply to this situation.

3. Arbitrators' Ruling

The interconnection agreement requires SWBT to route an intraLATA call to the LPIC selected by the end user. However, the basic principles of parity found in both federal and state law apply to SWBT's routing arrangements.[63] Therefore, SWBT is required to route an intraLATA call carried by Sage or Birch/ALT in the same way SWBT routes its own intraLATA traffic.

C. DPL Issue Nos. 2 and 3

DPL Issue No. 2: Is SWBT required to provide intraLATA dialing to CLECs purchasing UNEs under the interconnection agreement after SWBT implements intraLATA equal access on May 7, 1999?

DPL Issue No. 3: Is SWBT required to provide intraLATA toll dialing functionality under the FTA, if a CLEC purchases ULS common/blended transport, *etc.*?

1. Parties' positions

[63] *See* Arbitrators' analysis on DPL Issues Nos. 1 and 4.

The parties do not dispute whether SWBT is required to provide intraLATA dialing parity. Instead, their dispute seems to be focused on how intraLATA dialing parity should be provisioned. [64]

2. Discussion

The FTA lists dialing parity as the duty of each local exchange carrier.[65] The FTA defines dialing parity as:

> The duty to provide dialing parity to competing providers of telephone exchange service and telephone toll service, and the duty to permit all such providers to have nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays.[66]

The Federal Communications Commission (FCC) goes on to explain: "Dialing parity enables a customer of a new entrant to dial others with the convenience an incumbent provides, regardless of which carrier the customer has chosen as the local service provider."[67]

According to Section 5.2.1 of Attachment 6 – UNE of the interconnection agreement, SWBT is required to provide the local switching UNE so that the dialing plan associated with the port will be equal to the dialing plan established in the [central] office for SWBT's own customers. Since the local switching element allows SWBT customers to dial 1 + for intraLATA calls after SWBT implements dialing parity, SWBT should

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[64] Direct Testimony of Rachel Bernstein at 9-11 (June 15, 1999); Direct Testimony of Sean Minter at 13 (May 3, 1999); Direct Testimony of Gary Nuttall at 14-17 (June 15, 1999).

[65] FTA § 251(b)(3).

[66] *Id.*

[67] First Report and Order at ¶17.