BEFORE THE TENNESSEE REGULATORY AUTHORITY AT

NASHVILLE, TENNESSEE
November 22, 2000

IN RE:	)	
	)	
PETITION OF BELLSOUTH	)	**DOCKET NO. 97-01262**
TELECOMMUNICATIONS, INC. TO	)	
CONVENE A CONTESTED CASE TO	)	
ESTABLISH "PERMANENT PRICES"	)	
FOR INTERCONNECTION AND	)	
UNBUNDLED NETWORK ELEMENTS	)	

SECOND INTERIM ORDER RE: REVISED COST STUDIES AND GEOGRAPHIC DEAVERAGING

This matter came before the Tennessee Regulatory Authority ("Authority" or "TRA") at a regularly scheduled Authority Conference held on April 25, 2000, for consideration of revised cost studies, comments and reply comments filed by the parties to this proceeding. This Order reflects the findings of the Authority at the April 25, 2000 Conference.

Travel of the Case

The purpose of this docket is to establish prices for interconnection and unbundled network elements (UNEs). It was initiated as a contested case on the motion of the Authority on July 15, 1997, pursuant to a petition filed by BellSouth Telecommunications, Inc. ("BellSouth") on June 23, 1997. BellSouth's petition was filed to comply with the arbitration proceedings between BellSouth and AT&T Communications of the South Central States, Inc. (Docket 96-01152), and BellSouth and MCI Telecommunications Corporation (Docket 96-01271), wherein the Authority adopted proxy prices for interconnection and network elements. These proxy prices were to be used in the interim period prior to approval of cost-based interconnection and

unbundled network element prices. This proceeding examines the cost studies and proposals submitted by the parties to determine the prices for unbundled network elements.

The following entities have participated in this proceeding as Intervenors: AT&T Communications of the South Central States, Inc. ("AT&T"); Office of the Attorney General, Consumer Advocate Division ("Consumer Advocate"); GTE Long Distance; MCI Telecommunications Corp. ("MCI");[1] NEXTLINK Tennessee ("NEXTLINK"); Time Warner Communications of the Mid-South; United Telephone-Southeast ("UTSE"); Sprint Communications Company, L.P. ("Sprint"); WorldCom, Inc.; LCI International Telecom Corp.; the Tennessee Municipal Telecommunications Group; Tennessee Cable Telecommunications Association ("TCTA"); American Communications Systems, Inc. ("ACSI"); and Brooks Fiber Communications of Tennessee, Inc. Intermedia Communications, Inc. was granted limited participation in this proceeding pursuant to its petition.

This proceeding has been divided into two phases. In Phase I, the Authority determined the adjustments for each cost model presented. The Authority conducted hearings on the issues in Phase I on November 17-21 and 24, 1997, and February 23 and 25-27, 1998. Post-hearing briefs were filed by the parties on March 20, 1998. Parties submitted proposed findings of fact and conclusions of law on May 15, 1998. Thereafter, the Directors of the Authority deliberated on the Phase I issues at a regularly scheduled Authority Conference held on June 30, 1998. The Authority issued its *Interim Order on Phase I of Proceeding to Establish Prices for Interconnection and Unbundled Network Elements* ("First Interim Order") on January 25, 1999.

In Phase II, the Authority is determining the prices for interconnection and unbundled network elements based on the cost studies filed in compliance with the Authority's First Interim

[1] MCI Telecommunications, Corp. merged with WorldCom, Inc. in September of 1998 and subsequently appeared in this action as "MCI WorldCom."

Order. The final prices will be based on criteria specified by the federal Telecommunications Act of 1996 and orders issued by the Federal Communications Commission ("FCC"), including FCC Order No. 96-325.

Two (2) models purporting to reflect Total Element Long Run Incremental Cost (TELRIC) have been presented in this proceeding for calculating UNE prices: BellSouth's "TELRIC Calculator" model and the HAI ("Hatfield") model presented jointly by AT&T and MCI. Although the specific methodologies and inputs differ, both models calculate the total investment required to provide the UNE and associated expenses related to that investment. The UNE investment includes the capitalized costs of the network facilities (e.g., cable, wire, poles, switches, plus materials and labor costs) to install these facilities. Indirect investments such as allocation of land and building costs are added to the direct investment discussed above. Model inputs concerning fill factors, structure sharing and available technologies drive the investment costs. Expenses, calculated as a percentage of the investment, are then applied to the investment amounts to arrive at the final estimates of UNE costs. Expenses include depreciation, maintenance expenses, administrative expenses, and a fair return on the investment. The Authority's decisions have included adjustments to both the investment and expense inputs.

The Authority's First Interim Order on Phase I, entered January 25, 1999, directed the parties to submit cost studies in compliance therewith. The parties filed the required cost studies on February 24, 1999. After issuance of the Authority's Interim Order, BellSouth and MCI WorldCom filed petitions requesting the Authority to reconsider and clarify its decisions as to specific issues. The Authority deliberated on those petitions at an Authority Conference on April 20, 1999 and modified some of its earlier decisions, as reflected in its *Order Re: Petitions for Reconsideration and Clarification of Interim Order on Phase I* ("Order on Reconsideration") issued on November 3, 1999.

Pursuant to the Authority's First Interim Order of January 25, 1999 and Order on Reconsideration of November 3, 1999, BellSouth Telecommunications, Inc. ("BellSouth") filed its revised TELRIC Calculator Model, and AT&T and MCI WorldCom filed their revised HAI Model 4.0 on December 1, 1999. On December 13, 1999, the Authority requested comments from the parties on the proposed revised cost studies reflecting the adjustments required by the First Interim Order and the Order on Reconsideration. On January 20, 2000, BellSouth, AT&T, MCI WorldCom, and TCTA filed their initial comments to the revised cost studies. Additional comments were filed by the parties thereafter.

According to the comments filed by AT&T and MCI WorldCom, BellSouth did not comply with the orders of the TRA concerning four issues in this proceeding: the deployment of Integrated Digital Loop Carrier ("IDLC") technology; drop wire lengths; Operational Support Systems ("OSS") recovery; and vertical features. In summary, AT&T and MCI WorldCom assert the following: (1) BellSouth has not properly revised its loop switching combination cost studies to allow for the provision of forward-looking TELRIC compliant IDLC technology; (2) BellSouth's cost studies do not properly reflect the TRA's adoption of a 100-foot drop length; (3) BellSouth has not properly calculated or allocated its OSS recovery charge to all unbundled network elements ("UNEs") as ordered by the TRA in its Order on Reconsideration; and (4) BellSouth continues to assess separate charges for vertical features contrary to the orders of the TRA.

BellSouth asserts that its revised cost studies fully comply with the Authority's orders and insists that through its comments, in an attempt to artificially reduce the cost of a loop in Tennessee, AT&T is asking the TRA to order additional adjustments to BellSouth's cost studies that were not required by the Authority's November 3, 1999 Order. According to BellSouth, the

TRA's adjustments will set rates for UNEs well below the just and reasonable rates required by the federal Telecommunications Act of 1996 ("the Act"). BellSouth maintains that the adjustments proposed by AT&T would produce unjustifiably low loop costs as compared with a forward-looking cost of a 2-wire loop in Tennessee as determined by the Hatfield model.

In its comments, TCTA insists that BellSouth's contention that "by every objective measure, establishing rates based upon BellSouth's cost studies as adjusted by this Authority would violate the statutory standard,"[2] is without merit because it is based upon a strained interpretation of a narrow set of measures. TCTA states that BellSouth's position should be rejected because BellSouth failed to establish that the TRA's adjusted rates for UNEs violate any just and reasonable standard.

At a regularly scheduled Authority Conference held on April 25, 2000, the Authority deliberated on and issued its findings regarding the revised cost studies. The Authority carefully reviewed this record, including its earlier orders and the comments filed by the parties, in arriving at those decisions reflected in this Order. This is an interim Order, and shall be incorporated into the Final Order as if fully rewritten therein.

Cost Model

In its First Interim Order, the Authority determined that the TELRIC methodology is the forward-looking economic cost methodology to be used to set permanent prices for UNEs and decided not to accept or reject BellSouth's TELRIC Calculator or AT&T's Hatfield models at that stage. Instead, the Authority ordered certain adjustments to both models. No less than seventeen (17) primary adjustments were ordered to the TELRIC Calculator and no less than nine (9) primary adjustments were ordered to the Hatfield model.

[2] BellSouth's Comments, (January 20, 2000) p. 6.

Based upon a review of the cost models and the comments of the parties, the Authority adopts BellSouth's TELRIC Calculator model ("the Model") for the purpose of setting permanent UNE prices in this proceeding. While the HAI ("Hatfield") Model filed by AT&T and MCI WorldCom appears to comply with the Authority's previous Orders, it estimates costs for only a small subset of UNEs. Furthermore, AT&T and MCI WorldCom now advocate the outputs of BellSouth's Model with adjustments. BellSouth, on the other hand, attempts to meld the two models to estimate costs for the loop inputs, while using its Model, unadjusted, for the remainder.[3] In short, the juggling of the two models has become unwieldy and necessitates a choice. BellSouth's Model is the only one that can generate cost estimates for all the UNEs and the only one advocated by any party for the non-loop UNEs.[4]

Deployment of Integrated Digital Loop Carrier Technology

The Authority's First Interim Order and Order on Reconsideration did not require BellSouth to use one hundred percent (100%) IDLC technology. The TRA ordered that "for customers served by IDLC technology, BellSouth shall offer an unbundled loop which will permit end-users to obtain the same level of performance as that offered by IDLC."[5] In addition, the Authority required BellSouth to "assume a mix of 70.38% IDLC and 29.62% analog line terminations in calculating switch costs."[6] Further, the Order on Reconsideration states,

> BellSouth must offer IDLC to competitors on a per-channel basis in central office feeder routes and serving areas where IDLC is available to BellSouth customers. Cost-based rates for IDLC should be submitted as part of the

[3] Responses to Staff Data Request, (March 31, 2000).
[4] BellSouth asserted that its Model generates costs that are "too low" for basic two-wire loops. On this assertion alone, BellSouth advocated use of the Hatfield model's two-wire-loop cost estimate. This is the only Hatfield model result that BellSouth proposed to adopt and BellSouth used this estimate, along with outputs of its own model, to estimate costs for the remaining loop UNEs. Otherwise, BellSouth proposes to use the unadjusted outputs of its own Model. BellSouth provided us no substantive basis to adopt such an *ad hoc* piecemeal approach. For this reason the Authority rejected this specific proposal.
[5] First Interim Order, (January 25, 1999) p. 39.
[6] Order on Reconsideration, (November 3, 1999) p. 23.

compliant cost studies, and these rates should be based on the per-channel cost of a 'virtual' loop and port being provided over IDLC.[7]

From a review of the record and the TRA's previous orders, BellSouth was not required by the TRA to use one hundred percent (100%) IDLC deployment in its revised cost studies.

With respect to the deployment of GR-303[8] as opposed to TR-008[9], AT&T's request was not addressed at the outset of this proceeding. Although GR-303 IDLC may be the more efficient and least-cost technology in the future, at this time there is not enough evidence in the record to sufficiently affirm this assertion. While it may be premature to do so at this stage, in future revisions of UNE prices, this issue may be revisited if appropriately put before the Authority. Based upon the foregoing, the Authority found that relative to the issue of the deployment of integrated digital loop carrier technology, BellSouth has complied with the TRA's Orders.

Drop Wire Lengths

Pursuant to the Authority's First Interim Order, BellSouth has adjusted the material prices in its cost studies to reflect a 100-foot drop length. BellSouth, however, makes no adjustment for the contracted labor rates that it currently uses. BellSouth argues that it is proper to assume a rate for contract labor for buried wire based on zero (0) to five hundred (500) feet of drop length because at this time BellSouth pays a fixed rate for the placement of drops up to five hundred (500) feet.[10] The Authority's First Interim Order requiring cost models to reflect a 100-foot drop length, as a reasonable estimator of conditions in a forward-looking environment,

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[7] Order on Reconsideration, (November 3, 1999) p. 43.
[8] GR-303 or TR-TSY-000303/GR-303-CORE Interface is the technical reference describing the overall generic requirements for an IDLC system as well as a generic IDLC interface between a Local Digital Switch (LDS) and Remote Digital Terminal (RDT).
[9] TR-008 or TR-TSY-000008 Interface describes the requirement necessary for an LDS system to connect to an SLC-96 RDT across a digital interface at the T1 rate of 1.544 Mbps.
[10] BellSouth's Reply Comments, (February 18, 2000), p. 5.

contemplated that labor rates would coincide with the cost of installing a 100-foot average drop. BellSouth's adjustments do not accomplish this on the labor side of the equation. BellSouth's position would have the Authority conclude that in a forward-looking environment, a contractor retained to install drops would incur the same labor expense regardless of whether that contractor was required to install, on average, 100-foot drops or 500-foot drops. This proposition cannot be reconciled given the correlation between labor costs expended on a given task and total labor costs, notwithstanding BellSouth's current fixed-rate arrangements for drops up to 500 feet. The Authority finds that BellSouth's use of its existing fixed contract labor rate for buried wire installation based on zero to 500 feet of drop length is not representative of forward-looking costs for the installation of 100-foot drops and as such, is not in compliance with the Authority's First Interim Order. BellSouth shall comply with the Authority's First Interim Order and adjust its cost model to reflect labor rates associated with a 100-foot drop wire length.

Operational Support System (OSS) Recovery

BellSouth's revised cost study shows the conversion of the TELRIC cost-per-order to a monthly cost-per-UNE, and that all OSS costs associated with all activities reflect a seven percent (7%) fall-out rate and fifteen (15) minutes of work time to resolve a fall-out situation. AT&T claims that BellSouth's cost study should have allocated some "amount to BellSouth's operations from recovery of its OSS development cost."[11] In its reply comments, BellSouth counters that it does not use the electronic interfaces that are at issue here, because such interfaces were solely deployed for and used by competing local exchange carriers ("CLECs"), and that BellSouth was not required to include its retail operations in the OSS development cost recovery calculations.[12] The Authority previously ordered that "OSS costs to BellSouth shall be

[11] AT&T's Comments, (January 20, 2000) p. 13.
[12] BellSouth's Reply Comments, (February 18, 2000) p. 6.

recovered from all users of the OSS systems, whether by ILEC or CLEC, or by BellSouth itself through an additive to the recurring rate for all UNEs."[13] This language does not exclude BellSouth from the OSS cost recovery. The Authority finds that BellSouth should remove the cost of the OSS electronic interfaces from its recurring and nonrecurring cost studies so as to recover these costs through an additive to the recurring rate for all UNEs.

Vertical Features

In its Order on Reconsideration, the Authority ordered that the price of the switched port shall include all features[14] for a switch port, and the switch vertical features should not be priced as individual elements. After reviewing the record, the Authority finds that BellSouth has not complied with the Authority's orders regarding vertical features. Under the Authority's orders, the cost of the vertical features must be built into the cost of the unbundled switch port element. Permitting BellSouth to include separate charges for vertical features may allow a double-recovery of its costs for vertical features. BellSouth should adjust its cost studies by removing the separate charges for vertical features, such that a switch port includes all features.

New Technology

The Authority's directive in its January 25, 1999 First Interim Order that "prices should be established using the forward-looking economic cost methodology as defined by the FCC's TELRIC methodology,"[15] places a fiduciary responsibility on all parties, CLEC and ILEC alike, to ensure that the methodology adopted is populated only with those costs that reflect the least cost and most efficient technology. To the extent that BellSouth presents new technology in other venues, it has, as articulated in the First Interim Order, a responsibility to include that

[13] Order on Reconsideration, (November 3, 1999) p. 44.
[14] First Interim Order, (January 25, 1999) p. 39.
[15] First Interim Order, (January 25, 1999) p. 8.

technology in cost studies filed in Tennessee. The Authority's Phase I decisions in this proceeding would lack the desired effect were BellSouth not required to do so.[16]

UNE Combinations

BellSouth should provide recurring and nonrecurring costs for UNE combinations already combined in its network.[17] Further, BellSouth should adjust the nonrecurring cost of UNE combinations not already combined in its network to reflect any efficiencies of providing these combinations. Only BellSouth's nonrecurring cost model should be used to set the nonrecurring costs for those UNE combinations already combined. Any adjustments that are required should be explained by BellSouth in detail.

Geographic Deaveraging

In its First Interim Order, the Authority ordered that "the decision regarding deaveraging of loop rates is reserved for Phase II after the compliant cost studies from the parties are received and reviewed by the Authority."[18] Based on action by the FCC,[19] the Authority is required to have in effect deaveraging of the proxy rates that were established in the AT&T – MCI - BellSouth Arbitration.[20] Pursuant to notice issued by the Authority on April 10, 2000, the parties were provided the opportunity to submit proposals to accomplish deaveraging of the proxy prices in the AT&T and MCI arbitrations and to comment on those proposals. After reviewing the proposals put forth by the parties and the comments with respect thereto, the Authority finds that

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[16] The Authority contemplates having to make a number of continuing adjustments before this proceeding is concluded. Consequently, the Authority's Phase I decisions, coupled with the parties' compliance therewith, can aid in economically and beneficially reducing the iterations necessary to achieve permanent prices in Tennessee, thus advancing a competitive environment.

[17] BellSouth must provide the combination throughout its network as long as it provides this same combination to itself anywhere in its network.

[18] First Interim Order, (January 25, 1999) p. 39.

[19] The requirement for deaveraging was initially established in the FCC's Local Competition Order in Docket 96-235 issued August 8, 1996. Following the resolution of various appeals of that Order, the FCC subsequently stayed enforcement of the deaveraging portion of its rules until May 1, 2000. (Federal-State Joint Board on Universal Service, CC Docket No. 96-45, November 2, 1999.)

[20] TRA Docket Nos. 96-01152 and 96-01271.

BellSouth's proposed deaveraged UNE proxy prices for three (3) geographic zones should be adopted until such time as the Authority adopts deaveraged rates for the permanent UNE loop prices. The proxy rates for the UNE loop adopted for the three (3) zones are $15.92 for zone one, $20.79 for zone two and $27.18 for zone three.[21]

At the April 25th Authority Conference, the Directors unanimously adopted the above-stated findings and ordered BellSouth to submit its cost model with adjustments, and file proposed prices for UNEs based on the adjusted model within thirty (30) days of receipt by the Authority of the official transcript reflecting the decisions set forth at that Conference. In addition, the Authority ordered that any party desiring to comment on the adjustments to the model or BellSouth's proposed prices and deaveraging proposals must do so within forty-five (45) days of receipt by the Authority of the official transcript reflecting the decisions set forth at the Conference.

IT IS THEREFORE ORDERED THAT:

1. The BellSouth TELRIC Calculator Model is adopted for the purpose of setting permanent UNE rates;

2. BellSouth shall submit its TELRIC Calculator Model, with adjustments, as ordered herein by the Authority, not later than thirty (30) days after the Authority's receipt of the official transcript reflecting these decisions;

3. BellSouth shall file proposed prices for UNEs based on the model as adjusted not later than thirty (30) days after the Authority's receipt of the official transcript reflecting these decisions. Those prices shall be geographically deaveraged into at least three (3) rate zones and shall include OSS costs and the recurring prices for UNEs;

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[21] UNE loops included here are a 2-Wire Analog Voice Grade Loop ("WAVGL") service level, 4-WAVGL, and 2-Wire Integrated Services Digital Network ("ISDN") digital grade loop.

4. BellSouth's proposed deaveraged proxy prices for UNE loops in three (3) geographic zones are adopted until such time as deaveraged permanent prices for UNEs are established; and

5. Any party wishing to comment on the adjustments to the model or BellSouth's proposed prices and deaveraging proposals shall do so not later than forty-five (45) days of the Authority's receipt of the official transcript reflecting these decisions.

Melvin J. Malone, Chairman

H. Lynn Greer, Jr., Director

Sara Kyle, Director

ATTEST:

K. David Waddell, Executive Secretary