GENERIC PROCEEDING TO ESTABLISH PRICES FOR INTERCONNECTION SERVICES AND UNBUNDLED NETWORK ELEMENTS. **DOCKET 27821**

ORDER

BY THE COMMISSION:

I. Introduction and Background

A. Procedural History

Pursuant to Commission Order entered on October 5, 2000, this proceeding was originally instituted to consider the establishment of interim and/or permanent prices for xDSL loops and related elements and services and was captioned as such.[1] The Commission's October 5, 2000 Order resulted largely from the jointly filed Petition (the "*Joint Petition*") of Dieca Communications, Inc., d/b/a Covad Communications Company ("Covad") and BlueStar Networks, Inc. ("BlueStar") (collectively the "Joint Petitioners") urging the Commission to establish a generic docket to set interim and permanent pricing for xDSL loops and related elements which they maintained were critical to the rapid deployment of broadband technologies in Alabama. The *Joint Petition* was filed in response to the Commission's April 26, 2000 Order in Docket 25980 seeking comments concerning the appropriateness of establishing revised unbundled network element (UNE) rates for BellSouth Telecommunications, Inc. ("BellSouth") and Verizon South, Inc., f/k/a GTE South, Inc. and Contel of the South, Inc., d/b/a

[1] DSL is an acronym for Digital Subscriber Line Service. The x in xDSL is a placeholder for the various types of digital subscriber line services offered including ADSL (Asymmetric Digital Subscriber Lines), SDSL (Symmetric Digital

Verizon Midstates (Collectively "Verizon") given changes in market conditions and the prevailing regulatory requirements. [2] The Commission first established UNE rates for BellSouth pursuant to order entered in Docket 26029 on August 25, 1998.[3]

In pleadings filed in response to the aforementioned *Joint Petition*, BellSouth Telecommunications, Inc. (BellSouth) generally agreed with the notion that the Commission should establish permanent rates for xDSL loops and related elements and services, but disagreed with the position of the Joint Petitioners that such rates should be established in isolation from unbundled network elements generally. BellSouth also opposed the recommendation of the Joint Petitioners concerning the establishment of interim xDSL rates.

In support of its position for a consolidated docket to establish UNE rates for all applicable elements, including xDSL loops and related elements and services, BellSouth argued that there would be a significant overlap of issues, testimony, and exhibits if xDSL loops and related elements and services were bifurcated from the consideration of pricing issues for unbundled network elements generally. In short, BellSouth contended that there was no reason to require substantial duplication of effort on the part of the parties and the Commission by conducting proceedings to determine xDSL loop and related element prices separate and apart from unbundled network element prices generally.

Verizon responded to the *Joint Petition* of Covad and BlueStar by noting that it did not at that time provide xDSL loops in Alabama although rollouts of such services were anticipated for the company's Dothan, Enterprise, and Andalusia markets by the end of year 2000. Verizon thus maintained that establishing network element and service rates for its xDSL loops would be

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Subscriber Lines), and IDSL (ISDN Digital Subscriber Lines) etc.

[2] *In Re*: *Implementation of the Universal Service Requirements of §254 of the Telecommunications Act of 1996*, Docket 25980, Alabama Public Service Commission, September 5, 2000. As noted below, additional comments concerning the establishment of revised UNE rates for BellSouth and Verizon were sought pursuant to Commission Order entered in Docket 25980 on September 5, 2000. Said additional comments were to be filed with the Commission on or before October 13, 2000.

[3] *In the Matter of Generic Proceedings*: *Consideration of TELRIC Studies*, Docket 26029, Alabama Public Service Commission, August 25, 1998 (the "Generic UNE Docket"). Note: The Commission has never formally adopted rates

premature and counterproductive. Verizon asserted that it would have a better idea of the costs involved in the provision of such services once it completed the engineering for xDSL loops in Alabama and filed a retail tariff for such services in advance of rollout. Verizon, therefore, surmised that there was currently no reason for the Commission to establish interim network element and service rates for its Alabama xDSL operations.

The Commission ultimately determined that BellSouth had indeed raised compelling arguments in support of its request for a consolidated UNE proceeding. In fact, the Commission considered BellSouth's recommendation for consolidated proceedings as a formal *Motion to Consolidate* the determination of xDSL pricing with the determination of pricing for UNEs generally. The Commission noted that a determination would be rendered concerning BellSouth's *Motion to Consolidate* following a review of the filings received in response to the Commission's September 5, 2000 Order in Docket 25980 seeking additional comments concerning the establishment of revised UNE proceedings.

In comments filed with the Commission on or about October 13, 2000, in Docket 25980, BellSouth again urged the Commission to combine its consideration of interim and/or permanent prices for xDSL loops and related elements and services within the context of a generic proceeding established to consider revised prices for all UNEs. In support of its position, BellSouth noted that: (1) The FCC had identified several new UNEs for which the Commission had not yet established a permanent, cost based rate; (2) BellSouth had developed a new cost study for the establishment of UNE rates; (3) A broadly defined generic docket would give a broader array of new entrants an opportunity to present evidence and express their views on the full range of rates for interconnection and all UNEs; and (4) A broader generic UNE proceeding would provide the Commission with the opportunity to fully consider the impact of the July 18, 2000 decision of the United States Court of Appeals for the Eighth Circuit in *Iowa Utilities Board*

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for Verizon although testimony concerning the establishment of such rates was considered in Docket 25704.

v. FCC wherein the FCC invalidated certain aspects of the FCC's Total Element Long Run Incremental Cost (TELRIC) principles.[4]

In its comments to the Commission, Verizon expressed uncertainty concerning the posture of the *Joint Petition* of Dieca and BlueStar and questioned the propriety of moving forward with any UNE rate setting proceedings in light of the recent developments at the Eighth Circuit in relation to *Iowa Utilities Board II*. Verizon also indicated that if the Commission indeed decided to go forward with an xDSL Docket and/or a revised generic UNE Docket, it would need additional time to perform the cost studies that would be necessary.

In comments also filed on October 13, 2000 in Docket 25980, the Joint Petitioners urged the Commission to keep its consideration of pricing for xDSL specific UNEs and related services on a separate, expedited track. The Joint Petitioners stressed that xDSL specific UNEs and related services were unique and should be handled expeditiously and on a separate track in order to ensure that consumers in Alabama were in position to receive access to high speed Internet service at competitive prices. The position of the Joint Petitioners in their October 13, 2000 comments was further supported by Sprint Communications Company, L.P. (Sprint) and the Southeastern Competitive Carriers Association (SECCA) and its members.[5]

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[4] *Iowa Utilities Board v. FCC* 219 F.3d 744 (8th Cir. 2000) ("*Iowa Utilities Board II*").

[5] SECCA represented that at the time of the comments in question that it was a coalition of the following competitive local exchange telecommunications providers, interexchange carriers and other interested entities: AT&T Communications of the South Central States, Inc. ("AT&T"), MCI WorldCom Telecommunications, Inc. and MCImetro Access Transmission Services, Inc. (collectively, "MCI"), ITC DeltaCom Communications, Inc. ("DeltaCom"), Business Telecom, Inc. ("Business Telecom"), Competitive Carriers Association ("CCA"), e.spire Communications, Inc. ("e.spire"), ICG Telecom, Inc. ("ICG"), Intermedia Communications, Inc. ("Intermedia"), LCI International Telecom Corporation ("LCI International"), NEXTLINK, Telecommunications Resellers Association ("TRA"), Time-Warner of the Mid-South, L.P. (Time-Warner), Actel Integrated Communications, Inc., Association of Communications Enterprises ("ASCENT"), BlueStar Communications ("BlueStar"), Competitive Telecommunications Association ("CTA"), KMC Telecom ("KMC"), NewSouth Communications ("NewSouth"), TriVergent Communications ("TriVergent") and US LEC Corp. ("US LEC"). SECCA further represented that its members who were interexchange carriers and/or competitive local exchange carriers in Alabama had been duly authorized by the Commission to provide telecommunications services to subscribers throughout the State of Alabama.

Following consideration of all the comments filed, staff from the Commission's Legal, Telecommunications and Advisory Divisions collectively recommend that the process for establishing interim and permanent prices for xDSL loops and related elements and/or services remain on a separate, expedited track from the establishment of revised UNE prices generally. The Commission concurred with the recommendation of staff in that regard and held that the establishment of interim and/or permanent prices of xDSL loops and related elements and services would be better handled on the separate, more expeditious track on which it had already been set. The Commission reasoned that by addressing xDSL related issues separately, the Commission would be in a position to better ensure the rapid deployment of broadband technologies in Alabama. BellSouth's *Motion to Consolidate* was, therefore, denied.

On December 13, 2000, BellSouth filed a *Petition for Reconsideration* of the Commission's November 21, 2000 Order denying the BellSouth *Motion to Consolidate.* BellSouth again argued in its *Petition for Reconsideration* that the continued bifurcation of xDSL related pricing issues from a broader generic proceeding addressing all UNEs would result in costly, duplicative proceedings and the possibility of inconsistent decisions by the Commission.

In order to allay the Commission's expressed concerns that a review of BellSouth's cost studies relating to all interconnection services and unbundled network elements would necessarily delay the expedited consideration of cost-based rates for xDSL related elements and services, BellSouth attached to its December 13, 2000 *Petition for Reconsideration* interim rates for xDSL related elements and services which it proposed for immediate adoption.[6] The interim rates proposed by BellSouth were rates that were submitted on an interim basis in BellSouth's Statement of Generally Available Terms and Conditions filed with the Georgia Public Service Commission earlier in the year 2000. BellSouth stressed that the interim rates it

proposed should be subject to true-up once the Commission established permanent rates for the elements in question.

In a filing submitted on December 22, 2000, Covad; BroadSlate Networks of Alabama, Inc. (BroadSlate); ITC DeltaCom Communications, Inc. ("ITC DeltaCom"); and Rhythms Links Communications, Inc. (Rhythms) (collectively the "Competitive Local Exchange Carriers" or the "CLECs") submitted a *Joint Response* to BellSouth's December 13, 2000 *Petition for Reconsideration*.[7] In their joint filing, the CLECs criticized BellSouth's repeated attempts to combine the pending xDSL proceedings with a generic UNE Docket. The CLECs were also critical of BellSouth's sudden affinity for interim rates despite previous arguments against the legal propriety of such rates. Nonetheless, the CLECs welcomed the interim rates proposed by BellSouth and recommended that those rates be implemented retroactively to June 27, 2000 – the date on which the original *Joint Petition* which led to the establishment of this proceeding was filed with the Commission.

On January 5, 2001, the CLECs jointly supplemented their December 22, 2000 *Joint Response* to BellSouth's December 13, 2000 *Petition for Reconsideration*. The CLECs acknowledged in said supplemental filing that the Commission might well experience less duplication of effort if the xDSL proceedings were combined with a generic UNE Docket wherein rates for all UNEs offered by BellSouth were established. The CLECs further noted that if the interim rates proposed by BellSouth in its December 13, 2000 *Petition for Reconsideration* were immediately implemented retroactive to June 27, 2000, the CLECs providing DSL service would receive immediate relief which would enhance their ability to grow. The CLECs accordingly agreed to the combination of the xDSL proceedings with a generic UNE Docket for BellSouth

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[6] The interim rates proposed by BellSouth also included proposed rates for elements and services identified by the Federal Communications Commission in its *Third Report and Order* in CC Docket No. 96-98, (Nov. 5, 1999) ("*UNE Remand Order*") and its *Third Report and Order* in CC Docket No. 98-147. Cost-based rates for said additional elements and services had not, at that time, been established by the Commission.

[7] As noted previously, BlueStar Networks, Inc. (BlueStar) was an original party in this cause. BlueStar was subsequently purchased by COVAD, however, and as such, was no longer a separate party to the proceedings.

provided: (1) that the interim rates proposed in BellSouth's December 13, 2000 Petition for Reconsideration were implemented immediately and retroactively to June 27, 2000 and also made applicable to Verizon; (2) that the February 5, 2001 hearing date scheduled for the xDSL proceedings remain in place for purposes of conducting a scheduling conference for all interested parties to arrive at a concrete timeframe to supplement discovery and testimony and to establish new trial dates for a generic UNE proceeding for BellSouth; (3) that the records in the xDSL proceedings and the generic UNE proceeding for BellSouth be combined, with the protective agreement entered in the xDSL proceeding applying to the generic UNE proceeding for BellSouth as well; (4) that the outstanding discovery requests in this proceeding be timely answered and BellSouth's scheduled rebuttal to the xDSL element testimony submitted by the CLECs be timely filed.

In reaction to the January 5, 2001 supplemental filing of the CLECs, BellSouth also filed, on January 5, 2001, correspondence with the Commission agreeing in principle with the enumerated proposals set forth in the supplemental filing of the CLECs. The lone exception noted by BellSouth to the CLEC proposals of January 5, 2001 pertained to the CLEC recommendation that the interim rates proposed in BellSouth's December 13, 2000 *Petition for Reconsideration* be immediately made effective retroactive to June 27, 2000. BellSouth argued that such an approach would result in a very costly and cumbersome true-up process to bring the xDSL rates it had imposed since June 27, 2000 in line with the rates that it proposed in its December 13, 2000 *Petition for Reconsideration*. BellSouth also argued that such a process would likely have to be repeated once final xDSL rates were established by the Commission at the conclusion of the generic UNE proceeding sought by BellSouth. BellSouth thus proposed that there be only one true-up following the Commission's establishment of final rates for the elements for which the interim rates were proposed in its December 13, 2000 *Petition for Reconsideration*. BellSouth agreed with the notion that the true-up process would cover the

timeframe commencing from the date immediately prior to the effective date of the final rates established by the Commission all the way back to June 27, 2000.

Upon reconsideration, the Commission ultimately determined that the public interest would best be served by combining the consideration of the evidence necessary to establish cost-based rates for xDSL related elements and services with the consideration of such evidence for all interconnection services and UNEs offered by BellSouth. The Commission determined that such a combined proceeding for BellSouth would result in the most efficient use of the resources of all parties, including the Commission, and would minimize the possibility of duplicative proceedings and inconsistent decisions by the Commission.

The Commission additionally held that the public interest would best be served by the immediate imposition of the interim rates proposed by BellSouth in its December 13, 2000 *Petition for Reconsideration*. The Commission noted that interim rates would encourage competition for xDSL related elements and services in BellSouth's territory until the Commission could establish permanent rates for all UNEs at the conclusion of the combined proceeding established therein.

The Commission further concluded that the rates for xDSL related elements and services assessed by BellSouth from June 27, 2000 until January 18, 2001, as well as the interim rates imposed by BellSouth from the January 18, 2001 Order until the date that final rates were established by the Commission, would be trued-up to the final rates ultimately established by the Commission in the combined proceeding.

The procedural schedule for the consolidated BellSouth UNE proceedings was established pursuant to a Procedural Ruling issued by the Commission on February 28, 2001. The proceedings were held as scheduled on May 14, 2001 through May 18, 2001.

With regard to Verizon, the Commission's January 18, 2001 Order in this cause established that bifurcated proceedings for Verizon's xDSL related elements and services and

all other UNEs offered by Verizon would be necessary due to Verizon's need for additional time to develop cost studies for UNE prices other than xDSL related elements and services. The Commission did, however, adopt on an interim basis, the rates for xDSL related elements and services proposed in prefiled testimony which Verizon submitted to the Commission in this cause on November 6, 2000. Said interim rates were to be the subject of a hearing commencing on February 5, 2001. With regard to the establishment of permanent cost based rates for all interconnection services and unbundled network elements offered by Verizon other than xDSL related elements and services, the Commission found it appropriate to establish proceedings for August 7 – 9, 2001.

On or about February 1, 2001, Verizon, ITC DeltaCom, and Covad jointly notified the Commission that they had reached an agreement as to interim xDSL rates for Verizon. Verizon and the aforementioned CLECs jointly requested that the Commission adopt the interim xDSL rates that they had mutually agreed upon and further requested that the hearing scheduled to commence on February 5, 2001 be instead converted to a scheduling conference. By Order entered on February 23, 2001, the Commission concluded that the interim xDSL rates jointly proposed by Verizon and the CLECs should be adopted by the Commission on an interim basis. Those rates and the terms and conditions of their adoption were set forth in Appendix A to the Commission's February 23, 2001 Order in this cause. The Commission further concluded that permanent prices for the xDSL related elements and services offered by Verizon should be determined in the context of the generic UNE proceedings for Verizon which had been scheduled by the Commission for August 7 – 9, 2001. At the request of the parties, the proceedings scheduled for August 7 – 9, 2001 were initially continued and then postponed indefinitely pursuant to a Procedural Ruling issued by the Commission on November 14, 2001. The indefinite postponement of the proceedings in question was largely attributable to the impending transfer of Verizon's Alabama assets to CenturyTel of Alabama, LLC.

B. The Party Participants to the BellSouth UNE Proceedings

At the proceedings of May 14 – 18, 2001, BellSouth presented the testimony of Ms. D. Daonne Caldwell, Mr. John Ruscilli, Mr. W. Keith Milner, Mr. G. David Cunningham, Mr. Randall S. Billingsley, Mr. James Stegeman, Mr. Walter S. Reid, Mr. William H. B. Greer, Mr. Thomas G. Williams, Mr. Ronald N. Pate, Mr. Wiley G. (Jerry) Latham, and Mr. W. Bernard Shell. The testimony of witnesses Milner, Cunningham, Billingsley, and Reid were entered into the record by stipulation.

The intervenor ITC DeltaCom presented testimony through its witnesses Ms. Christy Warren and Mr. Joseph Gillan. The Data Coalition, comprised of Covad and BroadSlate, introduced testimony through its witnesses Mr. Michael Zulevic, Mr. Dean Fassett, and Mr. Michael Starkey. WorldCom presented the testimony of Mr. Greg Darnell. SECCA presented testimony in the proceedings through its witnesses Mr. Don Wood and Ms. Cynthia Wilsky.[8]

The Office of the Attorney General of Alabama was also granted intervenor status in the proceedings held in this cause and participated in the proceedings by conducting cross-examination. The Office of the Attorney General of Alabama did not, however, submit the testimony of a witness on its behalf. Rhythms Link, Inc. was also granted intervenor status in the proceeding but was not represented during the course of the hearings.

At the close of the May 14 – 18, 2001 proceedings, the Commission afforded the party participants the latitude to submit post hearing Briefs in the form of proposed orders. Post hearing briefs were indeed submitted on behalf of BellSouth, SECCA, and the Data Coalition. ITC DeltaCom and WorldCom submitted a Joint Brief. No other party to the proceeding submitted a post hearing Brief.

C. The Legal Standards for UNE Prices

[8] Mr. Wood's prefiled testimony also references that such testimony was prepared on behalf of ITC DeltaCom.

In determining appropriate UNE prices, the Commission is guided by the provisions of the Telecommunications Act of 1996[9] and the applicable regulations of the FCC. As specified by §252(d)(1) of the Act, the Commission must establish just and reasonable rates for interconnection and unbundled network elements that are: (1) "based on the cost (determined without reference to a rate of return or other rate base proceeding) of providing the interconnection or network element (whichever is applicable);" (2) "nondiscriminatory;" and (3) "may include a reasonable profit."

In implementing the pricing standards under the 96 Act, the FCC adopted a forward looking costing methodology which it entitled Total Element Long Run Incremental Cost ("TELRIC"). The FCC's TELRIC methodology was based on a number of assumptions, chief of which was the notion that forward looking costs must be calculated assuming that, at any given time, the Incumbent Local Exchange Carrier ("ILEC") uses "the most efficient network architecture, sizing technology, and operating decisions that are operationally feasible and currently available to the industry."[10] The FCC determined that this "hypothetical" network would "best replicat[e] the conditions of a competitive market."[11]

Notably, the Eighth Circuit Court of Appeals in *Iowa Utils. Bd. v. FCC*,[12] vacated a number of the FCC's regulations including various UNE pricing rules. In *AT&T Corp. v. Iowa Utils. Bd.*,[13] the Supreme Court of United States reviewed portions of the Eighth Circuit's decision in *Iowa Utilities Board I*, affirming in part, reversing in part, and remanding the case to

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[9] Pub. L. No. 104-104 110 Stat. 56 (1996) (the "96 Act"). The 96 Act amended the Communications Act of 1934 and is codified at 47 USC §§151, *et seq.* Cites to sections of the 96 Act are accordingly cites to 47 USC.

[10] *In Re: Implementation of Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order 11 FCC Rcd. 15499, &520 (Aug. 8, 1996), *vacated in part, Iowa Utils. Bd. v. FCC,* 12 F.3d 753 (8th Cir. 1997), *rev'd. in part, aff'd. in part; MCI Corp. v. Iowa Utils. Bd.,* 119 S. Ct. 721 (1999) *(the "First Report and Order").*

[11] *Id.* at &679.

[12] 120 F.3d 753 (8th Cir. 1997) ("*Iowa Utilities Board I*").

[13] 525 U.S. 366 (1999) ("*AT&T Corp.*").

the Eighth Circuit for further proceedings. The Eighth Circuit conducted its proceedings on remand and issued its *Order on Remand* on July 18, 2000. [14]

For purposes of this proceeding, an issue of primary importance in the Eighth Circuit's July 18, 2000 *Order on Remand* relates to the court's invalidation of the rule established by the FCC at 47 CFR §51.505(b)(1). Said rule established the standards for "efficient network configurations" under the TELRIC methodology and was vacated by the Eighth Circuit due to concerns regarding the FCC's hypothetical application of the regulation. On September 22, 2000, however, the Eighth Circuit stayed its decision to vacate FCC Rule 51.505(b)(1) pending the filing and disposition of a request for certiorari with the United States Supreme Court. [15] The Supreme Court granted the request for certiorari and after consideration of the issues presented, issued an opinion on May 13, 2002 upholding the forward looking pricing methodology for determining UNE costs. In fact, the Supreme Court specifically "reverse[d] the Eighth Circuit's judgement insofar as it invalidated TELRIC as a method for setting rates under the 96 Act."[16] The FCC's pricing rules thus remain in effect.

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[14] *Iowa Utilities Board v. FCC,* 219 F.3d 744 *(*8th Cir. 2000*)* ("*Order on Remand*"; or "*Iowa Utilities Board II*").

[15] *Iowa Utilities Board v. FCC,* 219 F.3d 744 *(*8th Cir. 2000*) cert. granted in part,* 121 S. Ct. 877, 148 L..Ed. 2d 788 (2001). NOTE: An additional issue in the Supreme Court's review relates to whether §251(c)(3) of the 96 Act prohibits regulators from requiring that ILECs "combine certain previously uncombined network elements when a new entrant requests the combination and agrees to compensate the incumbent for performing that task." This issue is discussed in more detail at Section IX(A) infra.

[16] *Verizon v. FCC*, Nos. 00-511, 00-555, 00-587, 00-590, and 00-602, 2002 WL 970643 at *22 (Sup. Ct., May 13, 2002).

II. The Appropriateness of the BellSouth Cost Models

A. Overview

In this proceeding, BellSouth proposes recurring and nonrecurring costs as appropriate for all unbundled network elements including unbundled local loops; unbundled local exchange ports and features; unbundled switching and local interconnection; unbundled transport; signaling network, databases and service management systems; selective routing; collocation; service provider number portability; dark fiber, loop makeup, and line sharing; advanced intelligent network services; access daily usage; daily usage files; and loop combinations. The rates developed and proposed by BellSouth were set forth in Exhibit JAR-1 attached to Mr. Ruscilli prefiled testimony dated April 20, 2001. BellSouth asserts that the rates proposed in said exhibit are "just and reasonable", comply with all applicable requirements of the 96 Act and the FCC's rules and should accordingly be adopted by the Commission.

In developing both recurring and nonrecurring costs for UNEs and combinations thereof, BellSouth utilized several cost models including: (1) the BellSouth Telecommunications Loop Model8 ("BSTLM") to support the cost development for unbundled loop elements, service specific loops, and combinations;[17] (2) the Model Office Module of Telcordia's Switching Cost Information System Model ("SCIS/MO") and the Simplified Switching Tool8 ("SST") Model to support the cost development for all switch-related elements, including ports, usage, and vertical features;[18] (3) the BellSouth Cost Calculator8, which converts input data (material prices/investments by field reporting code, recurring additives, nonrecurring additives, and work times by job function code) into cost;[19] (4) the Capital Cost Calculator8, which produces depreciation, cost of money, and income tax factors that are applied to investments to calculate

[17] Tr. p. 1917-1923 (*Caldwell*).
[18] Tr. p. 1923-1927 (*Caldwell*).

capital costs;[20] and (5) the Loop Multiplexer, Digital Loop Carrier ("DLC"), SONNET, and DS-1 price calculators which develop the material price of specialized components used in the provisioning of various network capabilities.[21]

B. The BSTLM

The BSTLM determines the spatial layout of BellSouth's network by using actual wire center and customer locations and constructs the cable network based on minimum spanning road tree which is designed to determine the shortest path that connects customer locations. The BSTLM constrains the spanning tree such that each path follows the road network. The BSTLM forms carrier serving areas and, using user-defined technologies and engineering design principles, determines cable and equipment sizes as well. The model then calculates the investment associated with each network element.[22]

The first step in the modeling process is to locate the customers. This is accomplished by entering customer addresses from BellSouth's customer databases into the geo-coding software package. A successful geo-coding occurs when the software can identify a latitude and longitude for the address along a particular road segment. When the geo-coding is unsuccessful, BSTLM determines a surrogate address that assigns the customers to Census blocks according to the relative number of expected addresses in that Census block. In most cases, the service point, an end-user's house, is placed approximately fifty feet from the road.[23]

The second step in the process involves the connection of customer locations to distribution terminals. Drop wires connect the customer locations to distribution terminals. Each distribution terminal serves a designated road segment. The number of distribution terminals placed depends on the customer locations. In situations where multiple distribution

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[19] Tr. p. 1927-1928 (*Caldwell*).
[20] Tr. p. 1928-1929 (*Caldwell*).
[21] Tr. p. 1929-1930 (*Caldwell*).
[22] Tr. p. 303-305 (*Stegeman*).
[23] BSTLM Methodology, Appendix H at 19-24.

terminals are required, the model attempts to minimize the number of terminals and the total length of the drop cable.[24]

In the third step in the process, the BSTLM designs the outside plant network by connecting the distribution terminals using a minimum spanning tree methodology. A minimum spanning tree starts at a source such as a wire center building and connects the distribution terminal that is closest to the wire center. It then connects the next closest distribution terminal to the first two points, and continues connecting the next closest point to the prior existing network until all locations have been connected. The BSTLM constrains the measure of the shortest distance so that the cable follows the road network.[25] Thus, the network is not built across lakes or through end-user's backyards.

The BSTLM next places feeder distribution interfaces (FDIs) and the digital loop carrier devices (DLCs) so that feeder plant is connected to distribution plant efficiently and according to engineering guidelines. Placing the DLCs alters the minimum spanning trees because the DLC becomes the source of the tree rather than the wire center. The process of placing the DLCs starts from the distribution terminal furthest from the switch and progresses back toward the switch. A cluster of distribution terminals is formed around the DLC consistent with the engineering guidelines. After the first cluster is formed, the process is started over again, progressing toward the wire center and connecting the next group of distribution terminals into the cluster. The model never looks back to determine if it is cheaper to rearrange the distribution terminals such that each terminal is assigned to the closest DLC.[26]

After the DLCs and FDIs are positioned, the feeder is designed to reach those locations according to a minimum road spanning tree that starts at the wire center and connects the nodes. Cables are then sized to meet the demand at each node and road segment. Cable

[24] BSTLM Methodology, Appendix H at 35-37.
[25] Tr. p. 362-364 (*Stegeman*).
[26] BSTLM Methodology, Appendix H at 40-43.

sizes are reduced as demand decreases at each road segment.[27] The DLCs and FDIs are purchased to meet demand and the cable material cost and equipment material cost is summed and entered into the BellSouth Cost Calculator.

The parties to the proceeding generally agree that the BSTLM should be utilized to generate UNE prices in this proceeding. More particularly, SECCA witnesses Mr. Don J. Wood and Ms. Cynthia Wilsky state that the BSTLM overcame some of the deficiencies of BellSouth's previous loop model by replacing a process of sampling the embedded network with a process of developing an efficient network design based on geographic and demographic information.[28] Mr. Wood and Ms. Wilsky in fact assert that when the correct scenarios, assumptions, and inputs are used, the BSTLM is designed to accomplish the conceptually correct objective. Mr. Wood and Ms. Wilsky utilized BellSouth's models, changing inputs and assumptions, to calculate their proposed xDSL rates.

C. <u>The BellSouth Switch Cost Model</u>

As noted previously, BellSouth utilized the Model Office Module of Telcordia's Switching Cost Information System Model ("SCIS/MO") and the Simplified Switching Tool8 ("SST") Model to support the development for all switch-related elements.

In developing the SST, BellSouth significantly revised its method for calculating switching costs. The SST largely replaces the Telcordia Switching Cost Information System/Intelligent Network (SCIS/IN) program, the BellSouth Switched Network Calculator ("SNC") model, and several BellSouth-developed Excel workbooks, with one integrated study tool.[29]

The SST accepts the investment data from the Telcordia SCIS Model Office ("SCIS/MO") for items such as UNE port and usage and also integrates additional investment

[27] BSTLM Methodology, Appendix H at 57.
[28] Tr. p. 3181 (*Wood/Wilsky*).
[29] BellSouth Model Documentation, Appendix C, page 59.

data from fundamental studies for interoffice facilities, Signaling System 7 ("SS7"), Main Distributing Frame ("MDF") and feature hardware. The SST then produces material investments, which are passed on to the BellSouth Cost Calculator for conversion to monthly costs. After the BellSouth Cost Calculator is run, additional Excel workbooks may be used to map the SST cost elements to individual UNE or retail rate elements, where necessary. There is, however no interaction between the SST and the BSTLM.[30]

The SST has two primary Excel Modules. The SST-U file computes investments for end office switched usage, common transport, and features. Usage cost is developed by switch technology and is the sum of call set-up cost and conversation duration cost. The SST-P file computes investments for the end office switch ports, including the analog and digital line ports, PBX, and ISDN ports. The port used in the combo scenario is a weighted average of the service-specific ports. The weights used depend on the existing deployment of lines that terminate directly on the switch or connect to the switch through a DLC. These weights do not reflect the relative number of DLC lines and directly connected lines estimated by the BSTLM. Port costs include the costs associated with the main distribution frame, non-traffic sensitive switch costs, excess CCS capacity costs and start up costs. Port costs can be estimated for a variety of line types including analog lines, Access Interface Unit ("AIU") lines (5ESS), TR008 digital lines, and TR303 digital lines.[31]

The Switching models also estimate the feature costs. It is possible to estimate features cost as a bundle that represents the cost of all of the features or to estimate the cost of each feature separately. BellSouth has chosen to provide only the cost of the bundle. It has not determined costs and rates on a feature by feature basis.

D. <u>The Findings and Conclusions of the Commission</u>

[30] BellSouth Model Documentation, Appendix C, page 59.
[31] BellSouth Model Documentation, Appendix C, page 60-63.

Having reviewed the testimony of the BellSouth witnesses as well as that of the Intervenor witnesses, the Commission is of the opinion that the models utilized by BellSouth in this proceeding are appropriate for purposes of generating TELRIC compliant rates. The CLEC Intervenors did not propose alternative models, but instead chose to focus on the inputs BellSouth utilized in its models. We have determined from our review that the Intervenors have raised valid issues regarding the inputs to the BellSouth models.

One issue raised by the CLECs which the Commission examined with particular scrutiny concerns the question posed by SECCA witnesses Mr. Wood and Ms. Wilsky with respect to the reasonableness of BellSouth's proposed port and vertical features prices. In particular, Mr. Wood and Ms. Wilsky raise the question of whether the feature prices are already included in the processor costs. They point out that BellSouth sizes its switch based upon busy hour minutes of use and not vertical features usage. Since vertical features are preconstructed in the generic software of the switch, Mr. Wood and Ms. Wilsky contend there is no justification for the inclusion of any additional software costs and note that several BellSouth states adopted zero rates for switch features.[32]

After due consideration of the above issues raised by Mr. Wood and Ms. Wilsky, the Commission finds that the rates established for the port and features herein are fair and reasonable. However, if a CLEC believes that there is justification to revisit these rates, the Commission will reexamine those rates in the further proceedings at that CLEC's request, provided the CLEC provides proper support for such reexamination of the rates. In conclusion, we accept and approve the use of the BellSouth models for determining the prices of unbundled network elements with the reservation that the inputs and assumptions to said models must be modified in order for the models to comply with the forward-looking principles of TELRIC.

IT IS SO ORDERED BY THE COMMISSION.

[32] Tr. p. 79-81 (*Wood/Wilsky*).

III. The BSTLM Scenarios Proposed by BellSouth

A. Overview

In developing the cost of the various UNEs and combinations thereof, BellSouth ran the BSTLM model under five different network scenarios.[33] The BST2000 scenario, which BellSouth utilized for the development of investments for all network elements, except copper loops and UNE combinations, is based on the premise that all unbundled loops (other than those combined with a port) served via a fiber feeder-based DLC system must operate on a nonintegrated basis because these unbundled loops are not terminated directly into the BellSouth switch. Instead, they are terminated in a CLEC's collocation space.[34]

BellSouth used the Combo scenario to develop the material investment associated with the loops used in combinations (the 2 wire analog voice grade loop). Because combination loop/port offerings can be served via integrated DLC, this scenario terminates the loop via a DS1 channel directly into the switch, eliminating the need to de-multiplex the signal down from the DS1 channel to a DS0 channel.[35]

BellSouth used the Copper Only scenario to develop the material investment of those network elements served only on unloaded copper feeder and distribution facilities. The Copper only scenario is necessary in order to develop costs for copper loops of any length.[36]

In the BST 2000 ISDN scenario, all loops considered in BST 2000 are converted to ISDN loops and ISDN customers are added. The COMBO-ISDN run was used to develop the cost of an ISDN loop when it is offered in combination; thus it is identical to the BST 2000 ISDN scenario except that switched services remain switched.[37]

B. The Position of BellSouth

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[33] Tr. p. 1920-1921 (*Caldwell*).
[34] Tr. p. 1920 (*Caldwell*).
[35] Tr. p. 1920-1921 (*Caldwell*).
[36] Tr. p. 1921, 2195-2196 (*Caldwell*).
[37] Tr. p. 1921 (*Caldwell*).

BellSouth contends that the use of multiple scenarios does not violate the FCC's Rule 51.505(b).[38] In each scenario, BellSouth represents that it used the same overall line count and thus, considered the "total quantity of facilities" in each scenario. According to BellSouth, the multiple scenario approach captures economies of scale and scope, as required in Rule 51.515(b).[39]

BellSouth notes that it did not design five separate networks,[40] but asserts that the scenarios it proposes appropriately account for the differences in the manner in which BellSouth provisions different loops and reflects the cost differences associated with each of the methodologies.[41] BellSouth represents that because it cannot know today how a loop may be used by a CLEC in the future, its use of multiple scenarios is appropriate and, in fact, necessary to accurately calculate BellSouth's costs.[42]

C. <u>The Position of the CLEC Intervenors</u>

The CLEC intervenors in this proceeding essentially assented to the use of the BellSouth's cost models to set UNE prices for Alabama by failing to submit alternative cost models and instead focusing their challenges on the inputs BellSouth utilized in its models. However, SECCA witnesses, Mr. Wood and Ms. Wilsky did question BellSouth's use of multiple models given the fact that BellSouth provides all services using one network. According to Mr. Wood and Ms. Wilsky, BellSouth's use of multiple scenarios advances an argument that there is not a single lowest cost network configuration.[43] That, according to Mr. Wood and Ms. Wilsky is a notion which is contrary to FCC Rule 51.505(b) which states that UNE rates must be based on the lowest cost network configuration, not on several network configurations. Further, Mr. Wood and Ms. Wilsky emphasize that the reason for utilizing only one network configuration, taking

[38] 47 CFR §51.505(b).
[39] Tr. p. 2346-2347 (*Caldwell*).
[40] Tr. p. 2243 (*Caldwell*).
[41] Tr. p. 2343-2345 (*Caldwell*).
[42] Tr. p. 2197 (*Caldwell*).

into account the demand for all elements, is to capture economies of scale and scope which an ILEC achieves as a result of offering a panoply of elements and services.[44]

Notably, BellSouth's cost model expert, Mr. Stegeman, was uncomfortable with BellSouth's use of multiple models and admitted that the BSTLM was capable of projecting costs using a single run. Further, Mr. Stegeman testified that he was not aware of any other ILEC using this type of model with multiple scenarios.[45]

Mr. Wood and Ms. Wilsky represent that for stand alone loops, BellSouth's use of the BST 2000 scenario assumes an engineering design based on the use of obsolete universal digital loop carrier technology.[46] For XDSL loops, BellSouth uses an engineering design in the Copper Only scenario based on the use of all copper loops.[47] Mr. Wood and Ms. Wilsky thus surmise that BellSouth improperly uses different scenarios based upon the type of UNE being costed.[48]

Mr. Wood and Ms. Wilsky represent that it is imperative that only one network be used to develop UNE rates in this proceeding. They further contend that the Combo scenario is the only scenario presented by BellSouth that permits the BSTLM to develop a set of forward-looking characteristics.[49] They contend that the Combo scenario is the only scenario proposed that allows the BSTLM model to use both copper and fiber facilities, just as BellSouth's engineering practices indicate should be done on a forward-looking basis. They note that the Combo scenario also assumes the use of IDLC and NGDLC when these systems are the most efficient means of providing the feeder portion of the loop, just as BellSouth's engineering practices indicate should be done on a forward-looking basis.

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[43] Tr. p. 2304-2305 (*Caldwell*).
[44] *Id.*
[45] Tr. p. 446 and 453-456 (*Stegeman*).
[46] Tr. p. 3184-3186 (*Wood/Wilsky)*.
[47] Tr. p. 3186-3188 (*Wood/Wilsky*).
[48] *Id.*
[49] Tr. p. 3183-3184 (*Wood/Wilsky*).

Mr. Wood and Ms. Wilsky further note the use of the Combo scenario permits the BSTLM to determine the forward-looking economic cost of providing specific UNEs, assuming actual locations of customers and wire centers, BellSouth's engineering practices, and a network that will permit BellSouth to offer the mix of UNEs and services. They conclude that only the use of the Combo scenario (with the proper inputs) will result in the development of costs that comply with the FCC's rules and the Commission's costing principles.[50]

Mr. Wood and Ms. Wilsky assert that none of the other scenarios BellSouth has devised are at all useful for costing all loop elements of a single forward-looking network. They assert that the BST 2000 scenario (used for costing stand-alone loops) is strictly based on the use of obsolete universal digital loop carrier ("UDLC") technology which is neither forward-looking nor consistent with BellSouth's current or planned practices. [51] Mr. Wood and Ms. Wilsky contend that BellSouth's use of the Copper-Only scenario to cost xDSL-compatible loops is obviously not forward-looking since BellSouth has no plans to deploy an all-copper network.[52] They maintain that the Copper Only scenario in fact assumes an entire network built to provide only one type of service, xDSL, while ignoring all other services provided by BellSouth.[53]

The Data Coalition emphasizes that the FCC pricing rules require the use of a single, least cost, forward looking network which uses the most advanced technology available. Furthermore, the Data Coalition contends that the ILEC's network assumptions must consider all elements the ILEC will offer over that network. According to Covad, this forces the ILEC to recognize efficiencies that are captured in a single forward-looking network. The Data Coalition asserts that BellSouth acknowledges the existence of this rule, but blatantly ignores it and has proposed recurring rates in this Docket based on five different networks.[54]

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[50] *Id.*
[51] Tr. p. 3184-3186 (*Wood/Wilsky*).
[52] Tr. p. 2245 (*Wood/Wilsky*).
[53] Tr. p. 3184-3186 (*Wood/W*ilsky).
[54] Data Coalition Post Hearing Brief at p. 3.

The Data Coalition found particularly disturbing BellSouth's all Copper scenario given BellSouth's acknowledgement that it had no plans to build any such network, that such a network would never be built, and that such a network could never be considered forward-looking.[55] In fact, the Data Coalition contends that its outside plant engineering witness, Mr. Fassett, and BellSouth's engineering witness Mr. Milner, generally agree that a forward-looking network should have fiber in the feeder portion of the loop and copper in the distribution portion of the loop, with no copper loops longer than 12,000 feet.[56]

The Data Coalition also asserts that BellSouth cannot demonstrate to this Commission what a single element will cost until the CLEC reveals how that element will be used. More specifically, the Data Coalition contends that because of the flexibility provided to CLECs by the Act with respect to the utilization of network elements, BellSouth cannot know how to assign cost to certain elements that have multiple uses until BellSouth knows how the element in question will be utilized.

The Data Coalition recommends that the Commission reject BellSouth's unsupportable use of five different loop models to cost its network as well as the unsupported inputs used in the models. However, the Data Coalition concurs with the testimony of Mr. Wood and Ms. Wilsky on behalf of SECCA that the loop model that most closely represents a single forward-looking network is BellSouth's Combo model run. The Data Coalition recommends that the Commission require BellSouth to base all its rates on that single model.[57]

D. <u>The Findings and Conclusions of the Commission</u>

Having reviewed BellSouth's assessment of the reasons for running the different scenarios as well as analyzing the CLEC Intervenor's views regarding the appropriateness of multiple scenarios, the Commission accepts the use of five different scenarios for the purposes

[55] *Id.* at p. 4 [*Citing* Tr. p. 448 (*Stegeman*)].
[56] Data Coalition Post Hearing Brief p. 4.
[57] Data Coalition Post Hearing Brief at p. 5.

of determining TELRIC rates in this proceeding. That is not to say, however, that we do not have concerns with BellSouth's multiple scenario approach. In particular, we are concerned that the various scenarios presented by BellSouth do not capture the economies of scale associated with the provision of multiple services. We will, therefore, investigate in future proceedings the question of whether a model which prices all elements and combinations in a single scenario can be developed. For the purposes of this proceeding, however, we have focused our efforts on the merits of the Combo and BST 2000 scenarios proposed by BellSouth.

The differences between the Combo and the BST 2000 scenario center on how lines are terminated at the central office. The outside plant in both scenarios is approximately the same. Within the central office, however, the Combo scenario uses the integrated DLC configuration while the BST 2000 scenario uses a universal DLC configuration to terminate lines. BellSouth asserts that these termination schemes are required to provide reasonable service.

The CLEC Intervenors insist that in using the universal DLC, BellSouth is adopting an antiquated technology. They claim that such an adoption would not fulfil the TELRIC imperative to use the most efficient network currently available to the carrier.

We concur with BellSouth that a line that is not integrated into the switch will have different termination costs than a line that is integrated into the switch. However, we do not agree that the BST 2000 scenario offers the best termination technology for a nonintegrated line. It is apparent that there are alternative ways to terminate lines, but we will investigate those alternatives and the costs associated therewith in a further proceeding.

We further note that the BST 2000 scenario provides service to more customers than the Combo scenario.[58] However, it appears that neither of the scenarios provide service to all the BellSouth customers. For purposes of this proceeding, however, we will accept with the noted reservations BellSouth's use of multiple scenarios.

[58] Exhibit DDC-3 column D attached to the testimony of Ms. Caldwell.

***IT IS SO ORDERED BY THE COMMISSION*.**

IV. The Inputs to the BellSouth Models

A. Overview

BellSouth's models utilize inputs based upon network design, engineering assumption, structure cable and material costs, depreciation, cost of capital, and the allocation of expenses and common costs. BellSouth maintains that the appropriate assumptions and inputs that should be utilized are those set forth in the cost studies which BellSouth submitted in this proceeding. BellSouth maintains that the extensive expert testimony it submitted in this proceeding in support of those assumptions and inputs fully support the adoption of the recurring cost studies as filed by BellSouth.

The intervenors in the proceeding have, however, recommended numerous modifications to BellSouth's assumptions in situations where they have concluded that BellSouth's inputs fail to comply with the pricing requirements established by the 96 Act and the FCC's rules regarding the establishment of rates for unbundled network elements. Those rules provide for the use of forward looking costs to set prices for unbundled network elements based upon an efficient network configuration using the most efficient telecommunications technology available and the lowest cost network configuration given the existing location of the incumbent local exchange company's wire centers. The FCC also provides that a reasonable allocation of common costs should be made.

The intervenors generally contend that BellSouth's inputs are based upon the existing network and not an efficient network based upon forward-looking telecommunications technology. In addition, the intervenors generally argue that BellSouth incorrectly utilizes inflation factors and fails to recognize economies of scale existing in the BellSouth network. The specific areas of disagreement concerning the appropriate inputs to be utilized are set forth in more detail below.

SECCA's witness, Mr. Wood, raises two primary issues with respect to the network assumption underlying BellSouth's models and recommends several input modifications based on those issues. One issue raised by Mr. Wood concerns BellSouth's method of allocating investment costs for equipment that is shared among various UNEs utilizing those facilities. BellSouth proposes an allocation of such investment based on the number of DSO equivalents associated with each UNE, whereas SECCA proposes to allocate the shared investment based on the number of per pair equivalents.[59]

Under BellSouth's proposal, a single loop that is used to provide HDSL service (which equals 24 DSOs worth of bandwidth to the customer) will be allocated 24 times the amount of shared investment assigned to a plain old telephone service ("POTS") loop (which equals one DSO worth of bandwidth). Mr. Wood and Ms. Wilsky maintain that such an allocation is unreasonable because the loop being used to provide the higher bandwidth service does not use up 24 times as much of the shared facilities or cause 24 times as much cost to be incurred.[60]

According to SECCA, BellSouth admits that a single copper loop can be used to provide services ranging from POTS to a T1 line.[61] Because the loop uses a similar or perhaps exact amount of shared facilities whether it is utilized to provide POTS service or HDSL, Mr. Wood asserts that it is inappropriate to attribute 24 times more shared facility cost to the loop used to provide HDSL versus the loop used to provide POTS. Mr. Wood maintains that such an allocation has no basis in cost and has serious undesirable competitive implications.[62] Mr. Wood asserts that allocation of shared fiber construction investment cost on the basis of copper

[59] Tr. p. 3197 (*Wood/Wilsky*).
[60] Tr. p. 3189-3187 (*Wood/Wilsky*).
[61] Tr. p. 2314-2315 (*Caldwell*).
[62] Tr. p. 3198-3199 (*Wood/Wilsky*).

pairs would reasonably comport with the principle of cost causation and would eliminate the adverse consequences for advance services competition.[63]

BellSouth maintains that the Commission should reject Mr. Wood's proposal to allocate shared investment based on the number of copper pairs rather than attributing the cost based on DSO equivalents. BellSouth contends that Mr. Wood's proposed adjustment in this regard ignores the fact that DLC systems are driven by DSOs, not the number of copper pairs.[64] BellSouth asserts that in a real world network and in the BSTLM, the amount of fiber placed is dictated by the number of DSOs because as the number of DLC systems in the network increases, there is a need to increase the number of rings which leads to an increase in the number of fibers. BellSouth maintains that attributing these costs based on DSO equivalents best reflects cost causation and is consistent with the FCC's *First Report and Order* wherein the FCC noted that "certain shared costs that have conveniently been treated as common costs (or overheads) shall be attributed directly to the individual elements to the greatest extent possible."[65] BellSouth further notes that the Florida Public Service Commission rejected the notion that allocation should be on a per pair basis. Florida instead agreed with BellSouth's notion that shared loop investments should be allocated based on DSO equivalents.[66]

Mr. Wood also recommends the establishment of eight nodes per fiber feeder ring rather than the four nodes proposed by BellSouth. BellSouth notes that the BSTLM network design assumes OC3 rings for the fiber feeder and notes that four nodes equate to three remote terminal sites and one central office terminal. According to BellSouth, each node on the fiber ring increases the total amount of traffic carried by that ring. BellSouth asserts that it has been

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[63] *Id.*
[64] Tr. p. 406-409 (*Stegeman*).
[65] *First Report and Order* at &630, 682.
[66] In Re: *Investigation Into Pricing of Unbundled Network Elements,* Docket No. 990649-TP (Florida PSC, May 25, 2001) ("*Florida UNE Order*") at p. 134.

its experience that introducing more than three remote sites on the ring exhausts the capacity of the ring and that considering the establishment of eight nodes per ring is thus not appropriate.[67]

B. The Positions of the Parties with respect to Engineering Assumptions

SECCA, through the testimony of Mr. Wood and Ms. Wilsky, recommends numerous changes to the engineering assumptions of the BSTLM. The modifications recommended by Mr. Wood and Ms. Wilsky include: (1) lowering the cut-over point for the use of extended range cards from 14,800 feet to 13,000 feet; (2) lowering the average length from floor to floor in a building from 25 feet to 11 feet; (3) increasing the digital loop carrier remote terminal fill from 70% to 90% and the fiber feeder fill from 75% to 100%; (4) changing the copper "soft" limit from 12,000 feet to 15,999 feet and the copper "hard" limit from 13,000 feet to 16,799 feet; (5) changing the DLC "soft" limit from 12,000 feet to 15,999 feet and the DLC "hard" limit from 18,000 feet to 16,799 feet; (6) changing the DLC minimum line limit from 10 to 1,800; (7) changing the 24 gauge to 26 gauge crossover point (when a customer is served by a loop from the central office) from 12,000 feet to 16,800 feet in the 24 gauge to 26 gauge crossover point when the copper portion of the loop is within the Carrier Serving Area (from 9,000 feet to 16,800 feet); (8) changing the minimum number of pairs per housing unit from 2 to 1.5 and the minimum pairs per business from 6 to 3 due to utilization of xDSL; and (9) changing the minimum fiber optic cable size from 12 to 6 strands.[68]

SECCA further contends that BellSouth's network architecture includes design criteria that are not relevant because they do not create the lowest cost network configuration. SECCA thus asserts that the modifications proposed by Mr. Wood and Ms. Wilsky are reasonable from an engineering prospective and result in a network that more closely reflects efficient, lowest cost network design.[69]

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[67] Tr. p. 2194-2195 (*Caldwell*).
[68] Tr. p. 3194-3196 (*Wood/Wilsky*).
[69] *Id.*

BellSouth contends that the proposals of Mr. Wood and Ms. Wilsky would, if implemented, result in the modification of 25-30 model inputs. BellSouth maintains that the CLECs did not present any engineering testimony that would justify the modifications recommended by Mr. Wood who is himself not an engineer.[70] Aside from the lack of testimony supporting the above-discussed modifications, BellSouth notes that it submitted testimony through Ms. Caldwell explaining why it would not be appropriate to modify BellSouth's engineering assumptions.[71]

BellSouth further notes that in the Florida UNE proceeding, CLEC witnesses (including an engineer) advocated changing the same engineering assumptions that Mr. Wood recommends be adopted in this proceeding. BellSouth points out that the Florida Commission rejected each proposed change ruling that "it is more appropriate for purposes of determining BellSouth's UNE loop cost that they reflect BellSouth's current and prospective engineering principles and deployment practices."[72]

C. <u>The Positions of the Parties with respect to Structure Cable and Material Costs</u>

One group of inputs that significantly impact the loop cost is the investment (material plus engineering and installation) for feeder, distribution, and digital loop carriers. Investment includes: (1) the material prices, which were obtained from procurement records reflecting BellSouth's actual purchase prices (including actual discounts); and (2) the cost to engineer, furnish and install ("EF&I") the item of plant, which was calculated using BellSouth's In-Plant factors as discussed below.[73]

BellSouth represents that it used BellSouth-specific material prices for copper and fiber cable, the drop, the Network Interface Device ("NID"), DLC, and terminals. Because inflation causes fluctuations in the forward-looking investment amount over the life of an investment,

[70] BellSouth Post Hearing Brief at p. 13.
[71] Tr. p. 2190-2195 (*Caldwell*).
[72] *Florida UNE Order* at p. 133.

however, BellSouth notes that it applied an inflation factor to recognize the increases and decreases in prices BellSouth pays for these physical pieces of plant on average over the three-year study period (in this case 2000-2002). According to BellSouth, the investment inflation factors are the cumulative average of three years' projected inflation rates based on BellSouth telephone plant indices ("TPIs").[74]

BellSouth maintains that it converted material prices to an installed investment through the use of In-Plant Factors, which add engineering and installation labor and miscellaneous equipment to the material price. As explained by BellSouth, the installed investment is the dollar amount recorded in capital accounts. BellSouth asserts that its In-Plant factors are designed to augment calculated material prices to account for additional costs that are difficult to ascertain on an individual, element-specific basis. BellSouth represents that the In-Plant factors are developed based upon mathematical relationships between the material prices and the additional labor expense, miscellaneous material, and support structures to capture the total cost BellSouth will incur on a going-forward basis.[75]

BellSouth further maintains that In-Plant factors are account specific and are developed based on BellSouth-specific information at the state level. There are apparently four types of In-Plant factors: (1) Material Loading, (2) Telco Loading, (3) Plug-in Loading, and (4) Hardwire Loading. The Material Loading is applied to a material price, the Telco Loading to the vendor-installed investment, the Plug-in Loading to the deferrable plug-in and common plug-in material prices, and the Hardwire Loading to the hardwire portion of an equipment material price.[76]

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[73] Tr. p. 1938 (*Caldwell*).
[74] Tr. p. 1931-1932; (*Caldwell*). The TPIs are price indices that measure the relative changes in prices BellSouth pays for the construction of telephone plant between specific periods of time. The development of TPIs uses econometric techniques to establish mathematical relationships between the historical movement in each of the labor and material components that make up the TPIs, and the historical movement in explanatory variables. Explanatory variables are usually aggregate measures of the U.S. economy, e.g., price deflators from the national income and product accounts, union wage rates, copper prices, and other macroeconomic variables. Joel Popkin and Company, a BellSouth consultant, assists BellSouth with the calculation of TPIs. Caldwell, Tr. p. 1932.
[75] Tr. p. 1932-1933 (*Caldwell*).
[76] *Id.*

SECCA maintains through the testimony of Mr. Wood that the inclusion of an inflation factor in the price of material as well as in the cost of capital results in a double counting of inflation. Mr. Wood maintains that the elimination of the inflation factor that BellSouth has applied to materials thus does not eliminate recovery for inflation, but merely eliminates the double recovery of inflation.[77] Mr. Wood accordingly contends that the Commission should reject the material inflation factor BellSouth proposes and either: (1) use a nominal cost of capital, but not TPIs as proposed by BellSouth, or (2) use the TPIs in conjunction with "real" (not nominal) cost of capital. Mr. Wood suggests that either of the aforementioned adjustments to the model inputs are straightforward, but maintains that the first option would be easier to implement given that it takes advantage of a cost of capital akin to what the parties have proposed.[78] Choosing the second option would, according to Mr. Wood, require the Commission to solicit additional evidence regarding the "real" cost of capital.

In support of his position, Mr. Wood notes that the Florida Commission recently rendered an opinion concerning inflation adjusted material cost. More specifically, Mr. Wood cites the following language from the *Florida UNE order*:

> "As for inflation, we are persuaded, as explained above that BellSouth's application of its inflation factors results in a mismatch between the inflation adjusted material cost and the demand levels utilized in BellSouth's cost study.
>
> Therefore, upon consideration, BellSouth's SE&P [Supporting Equipment and Power] loading factor shall be used in setting UNE rates in this proceeding but the inflation factors shall be eliminated."[79]

Mr. Wood further maintains that the Commission should follow the lead of the Florida Public Service Commission by rejecting BellSouth's use of linear loading factors and requiring instead actual ILEC material investment inputs.[80] Mr. Wood asserts that BellSouth uses loadings applied to material price inputs to calculate the total installed investment for material.

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[77] Tr. p. 3203-3206 (*Wood/Wilsky*).
[78] Tr. p. 3204-3206 (*Wood/Wilsky*).
[79] *Florida UNE Order* at p. 304.

According to Mr. Wood, these loadings are applied as multipliers on the equipment prices to derive the total installed investment including engineering and installation. By using such linear loading factors, Mr. Wood asserts that BellSouth essentially assumes that engineering and investment costs are directly proportional to material prices.[81]

Mr. Wood maintains that the "factoring process" that BellSouth proposes is in fact inconsistent with the FCC's costing rules which require that costs calculated per a given UNE be "directly attributable to, or reasonably identifiable as incremental to, such element." Mr. Wood maintains that the process utilized by BellSouth admittedly distorts the relative cost of various facilities which in turn distorts the cost calculated for individual elements.[82]

Mr. Wood argues that the Commission should also reject the use of loading factors in the development of UNE cost. Mr. Wood maintains that the Commission could then: (1) adopt the fully loaded material prices based upon an earlier Florida Commission Order from its Docket No. 980696-TP; (2) wait to see what the Florida Commission adopts as fully loaded material prices in its pending investigation; or (3) commence its own investigation into appropriate fully-loaded material prices. SECCA contends through the testimony of Mr. Wood that either of the above approaches would have the effect of generating more accurate UNE rates.

BellSouth maintains that Mr. Wood's arguments concerning the double counting of the effects of inflation are misguided. BellSouth in fact contends that Mr. Wood ignores the fact that there are two distinct types of inflation that impact BellSouth; one to compensate investors for the use of their funds and the other to capture the increase or decrease in the cost of the plant itself. BellSouth maintains that because the cost of capital compensates investors for the use of their funds, inflationary effects must be considered. On the other hand, BellSouth points out that the loop material costs encountered are the actual costs BellSouth incurs in running its

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[80] *Id.* at 284-285.
[81] Tr. p. 3200-3204 (*Wood/Wilsky*).
[82] 47 CFR §51.505(b).

business and are hardly immune from inflation. BellSouth thus argues that it must pay both for its facilities and to reimburse its investors.[83] BellSouth further notes that the Commission has previously endorsed the use of investment inflation factors in establishing rates for UNEs. BellSouth, in fact, states that it used the same approach in Docket 26029 and the Commission adopted it. BellSouth maintains that SECCA has not offered any legitimate reason for the Commission to reach a contrary conclusion in this case.

BellSouth also maintains that the Florida Commission did not, despite representations to the contrary by Mr. Wood, "reject" BellSouth's use of loading factors. BellSouth maintains that the Florida Commission, in fact, "accept[ed] BellSouth's In-Plant loading factors for use in setting UNE rates."[84] BellSouth further maintains that the Florida Commission also required BellSouth to explicitly input all engineering and installation costs in the BSTLM so as to compare the results with those produced using loading factors and to determine the validity and magnitude of the CLECs criticisms of BellSouth's In-Plant loading factors. BellSouth asserts that, as Ms. Caldwell explained at the hearing, the CLEC's claim that BellSouth's use of In-Plant factors distorts the cost of larger sized facilities is not applicable, especially in the State of Alabama. BellSouth urges the Commission to follow the lead of the Florida Commission and "accept BellSouth's In-Plant factors for use in setting UNE rates."[85]

BellSouth opposes Mr. Wood's recommendation that the Commission adopt for use in the BSTLM the installed material values adopted by the Florida Commission in its Universal Service proceeding in Docket 980696-TP. BellSouth notes that Mr. Wood's proposal calls for the Commission to use selective BCPM inputs adopted by the Florida Public Service Commission in its Universal Service Order. BellSouth notes that BCPM was designed as a Universal Service model and, therefore, its inputs are not intended to, and do not reflect,

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[83] Tr. p. 1257-1259 (*Billingsley*).
[84] *Florida UNE Order* at p. 285.
[85] BellSouth Post Hearing Brief at p. 17.

BellSouth's forward-looking engineering practices and resulting costs in Alabama or Florida. BellSouth notes that the Florida Commission itself rejected the same CLEC proposal.[86] BellSouth concludes that it is the only party that has proposed BellSouth specific inputs in this proceeding and maintains that those inputs should be approved by the Commission.[87]

D. <u>The Positions of the Parties with respect to Depreciation</u>

BellSouth asserts that the appropriate economic lives to be used to determine depreciation expense in the forward-looking UNE cost studies are those provided by BellSouth witness G. David Cunningham in his Exhibit GDC-1.[88] BellSouth represents that its expected economic lives for newly placed plant are based on the 2000 BellSouth Alabama depreciation study which analyzes the various asset accounts to determine appropriate depreciation parameters for each account. BellSouth asserts that the depreciation study in question provides explanations of methodology, data, and analysis that support the asset lives and other depreciation parameters for asset accounts including those accounts that are used in the cost studies. BellSouth maintains that the economic lives that it proposes in this proceeding are consistent with those used to determine the depreciation rates currently being booked in Alabama for intrastate and for external reporting purposes.[89] BellSouth maintains that Mr. Cunningham's testimony stands unrebutted as the CLECs chose not to cross-examine him or to present any alternative depreciation study.

SECCA represents that the Commission should adopt the asset lives and salvage values adopted by the Commission previously in Docket 26029 as appropriate. For any accounts for which no value was determined in that proceeding, Mr. Wood and Ms. Wilsky propose the utilization of the most recent FCC prescribed value. For any accounts for which

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[86] *Florida UNE Order* at p. 190.
[87] Tr. p. 2213-2215 (*Caldwell*).
[88] Tr. p. 861, 871 (*Cunningham*).
[89] Tr. p. 861-864 (*Cunningham*).

BellSouth proposes a longer asset life or salvage value, Mr. Wood and Ms. Wilsky recommend the adoption of the BellSouth value.[90]

Mr. Wood asserts that the Commission clearly can and should find that its own, previously determined depreciation lives are reasonable and can be applied in this proceeding. Similarly, Mr. Wood contends that the FCC's depreciation lives are reasonable and can be applied in this proceeding as well since they have been determined to be forward-looking.[91]

BellSouth asserts that the Commission should not follow Mr. Wood's recommendation to blindly adopt FCC prescribed lives or lives adopted by this Commission more than three years ago. BellSouth asserts that the lives based on FCC ranges are too long, particularly for technology sensitive accounts. BellSouth maintains that the FCC established its ranges of projection lives and future net salvage for most accounts in an effort to simplify filing requirements. BellSouth asserts that the ranges established were developed so long ago that they can hardly be considered forward-looking today.[92]

BellSouth further maintains that the lives prescribed by the FCC for interstate depreciation purposes in Alabama are not appropriate for use in the UNE cost studies. BellSouth asserts that such lives were last prescribed by the FCC for Alabama in 1993, and particularly for the technology sensitive accounts, are much too long. BellSouth asserts that the FCC lives in question are based on the old regulatory paradigm in which plant lives were artificially lengthened beyond their true economic lives so that the investment in the plant would be recovered in smaller, year-to-year increments over longer periods of time. BellSouth maintains that such practices are totally untenable in today's competitive environment.[93]

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[90] Tr. p. 3246-3247 (*Wood/Wilsky*).
[91] *See Simplification of the Depreciation Prescription Process,* CC Docket No. 92-296, Third Report and Order, FCC 95-181, (rel. May 4, 1995), p. 6; and 1999 Update, &14.
[92] Tr. p. 865-868, 1132-1134 (*Cunningham*).
[93] *Id.*

BellSouth also argues that the economic lives adopted by the Commission more than three years ago in Docket 26029 should not be blindly adopted in this proceeding due to the ever-changing nature of technology and economic conditions. BellSouth maintains that the recommendations put forth by Mr. Cunningham concerning economic lives take into account the realities of the present and future marketplace for network deployment and, therefore, should be adopted.

E. <u>The Positions of the Parties with respect to Cost of Capital</u>

BellSouth asserts that the appropriate overall cost of capital that should be utilized in BellSouth's cost model is 11.25%. BellSouth asserts that the 11.25% figure is based on a capital structure of 60% equity and 40% debt, a cost of equity of 14.08% and a cost of debt of 7.0%. BellSouth further notes that the 11.25% figure represents the currently authorized federal rate of return which the FCC concluded was "a reasonable starting point for TELRIC calculations...".[94]

Dr. Randall Billingsley, who filed testimony supporting the reasonableness of BellSouth's 11.25% cost of capital, utilized three approaches to determine the appropriate cost of capital - - the discounted cash flow ("DCF") model, the capital asset pricing model ("CAPM"), and the risk premium analysis.[95] BellSouth maintains that as Dr. Billingsley explained, competition in the telecommunications industry has increased dramatically in recent years and consequently the business risk of the industry has increased as well.

Applying the three methodologies previously discussed, Dr. Billingsley concluded that the current cost of equity for BellSouth is within the range of 14.97% and 15.82%. Dr. Billingsley calculated the forward-looking cost of debt as at least 7.85%.[96] BellSouth maintains

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[94] *First Report and Order*, &702.
[95] Tr. p. 1173 (*Billingsley*).
[96] Tr. p. 1248 (*Billingsley*).

that Dr. Billingsley then applied several tests to determine the reasonableness of an overall cost capital of 11.25% and determined that such a cost was reasonable.[97]

Testifying on behalf of SECCA, Mr. Wood and Ms. Wilsky calculated a cost of capital of 8.01% for BellSouth.[98] SECCA maintains that Mr. Wood and Ms. Wilsky estimated BellSouth's cost of capital based on well established financial principles. According to SECCA, Mr. Wood and Ms. Wilsky developed a forward-looking cost of debt based on the yields of BellSouth's outstanding bonds and a forward-looking cost of equity by considering the results of both a Discounted Cash Flow and Capital Asset Pricing Model approach. SECCA contends that Mr. Wood and Ms. Wilsky then rated these costs of debt to develop a weighted average cost of capital. With a weighted average cost of capital, the assumed capital structure and the cost of debt would then input into the BSCC which calculates the implied cost of equity from those inputs.[99]

F. <u>The Positions of the Parties with respect to Expenses and Common Costs</u>

BellSouth maintains that its cost studies include a reasonable amount of shared and common costs which is consistent with the FCC rules and prior decisions of the Commission. According to BellSouth, both the FCC and the Alabama Public Service Commission have recognized that a forward-looking cost methodology should include a reasonable allocation of forward-looking joint and common costs.[100]

BellSouth represents that it develop appropriate shared and common cost factors for calculating the forward-looking cost of UNEs using a methodology previously approved by the Commission and incorporating therein certain modifications made by several state Commissions in BellSouth's region. Specifically, BellSouth maintains that its methodology for treating shared and common costs recognizes the conclusions of other state Commissions that

[97] Tr. p. 1196-1200 (*Billingsley*).
[98] Tr. p. 3255 (*Wood/Wilsky*).
[99] Tr. p. 3247-3248 (*Wood/Wilsky*).

shared costs should be reflected by means of shared cost factors and not be associated with labor rates. In addition, other changes were made to refine the wholesale/retail split of costs to recognize certain right to use fees in the shared and common cost process and to recognize any changes in the cost allocation manual ("CAM") for supporting information detail.[101]

BellSouth maintains that the ultimate objective of its methodology is to split the company's total forward-looking costs of business between its wholesale and retail functions and to specifically identify three major categories of wholesale costs: (1) wholesale direct costs; (2) the portion of shared costs distributed to wholesale operations; and (3) a reasonable portion of common costs applicable to the wholesale operation. BellSouth maintains that it is further necessary to split the wholesale direct costs between those wholesale costs that are related to recurring investment-related transactions (network elements) and those that are related to "other wholesale" transactions such as nonrecurring (e.g., service order activities) or special purpose transactions (e.g., operator services).[102]

BellSouth represents that once all these costs are properly categorized, cost factors for use in the BellSouth cost study can be developed. For instance, a relationship between wholesale common costs and the total of wholesale direct and wholesale direct and wholesale shared costs yields the common cost factor. BellSouth represents that in this study, the common cost factor equals 6.24% which compares to the 5.30% common cost factor used in the previous study. BellSouth also notes that a second set of factors was derived by determining the relationship by investment type between wholesale and shared costs related to investment accounts and the associated network investment. BellSouth notes that these are the shared cost factors which are used as inputs to the BellSouth cost studies and allow

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[100] *First Report and Order*, &&694-695; Alabama PSC Order of August 25, 1998 in Generic UNE Docket 26029.
[101] Tr. p. 1138-1140 (*Reed*).
[102] Tr. p. 1140-1141 (*Reed*).

BellSouth to associate a reasonable amount of forward-looking shared and common costs with each UNE.[103]

WorldCom's witness, Mr. Darnell, takes issue with BellSouth's determinations concerning shared and common costs. Specifically, Mr. Darnell maintains that BellSouth's calculation of the forward-looking expense that should be included in its UNE rates includes fundamental errors. He asserts that the most egregious of these errors is BellSouth's failure to adjust historical levels of expenses associated with inefficient processes prior to the forecasting process and its failure to adjust historical expenses for future productivity improvements. In short, Mr. Darnell claims that BellSouth has used too low a productivity factor in its forecast of expenses and asserts that the productivity BellSouth should utilize is 6.5%. He maintains that the 6.5% is the FCC's "currently effective" factor.[104]

BellSouth contends that Mr. Darnell's criticisms are without merit. BellSouth notes that Mr. Darnell has not performed any studies or provided any reasonable evidence that would indicate that the 3.1% productivity factor used by BellSouth for projecting certain expenses in its study is understated.[105]

BellSouth further notes that the 6.5% productivity factor which Mr. Darnell maintains is the FCC's "currently effective" factor is, in fact, no longer effective. According to BellSouth, the FCC's decision that authorized the use of the 6.5% factor for interstate price cap purposes was reversed and remanded to the FCC for further review by United States Court of Appeals for the District of Columbia Circuit.[106] BellSouth asserts that the FCC's decision to establish a new interstate price plan for the future made a review of this 6.5% productivity factor moot.

G. <u>The Findings and Conclusions of the Commission</u>

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[103] Tr. p. 1141-1142 (*Reed*).
[104] Tr. p. 2803-2808 (*Darnell*).
[105] Tr. p. 1165-1166 (*Reed*).
[106] *U.S.T.D. v. FCC*, 188 F.3d 521, 530 (D.C. Cir. 1999).

Given the fact that there is a general consensus among the parties that the models proposed by BellSouth are generally compliant with the TELRIC pricing rules and the forward-looking concept, the inputs and assumptions are perhaps the most important determinant in this case. The intervenors in this docket have recommended numerous adjustments, many of which have merit. Although we have not *per se* adopted such adjustments, we have nonetheless considered many of these recommended adjustments in our development of the prices of unbundled network elements that are adopted herein and attached to this document as Appendix A. We conclude that the prices so established fall within the range of reasonableness for cost-based rates using TELRIC principles.

IT IS SO ORDERED BY THE COMMISSION.

V. Nonrecurring Charges

A. The Recovery of Non-Recurring Charges, Generally

1. Overview

Nonrecurring costs are costs which BellSouth incurs as a result of a service request by a CLEC to provision a requested UNE and are comprised of labor costs and direct expenses.[107] In arriving at the nonrecurring costs it proposes, BellSouth did not use a "cost model" in the same manner as it used cost models to develop recurring costs. Rather, estimates of the work times for activities required to provision each element under study and the probability of each activity occurring were provided by BellSouth subject matter experts familiar with the provisioning process. Those estimates were then entered into the BellSouth Cost Calculator on the Nonrecurring Input Sheet by element and multiplied by the appropriate labor rate.[108]

2. The Position of BellSouth

[107] Tr. p. 2112 (*Caldwell*).
[108] Tr. p. 1930 (*Caldwell*).

Ms. Caldwell specifically explains that BellSouth identified the workgroups involved in the provision of UNEs and the time it takes to complete the tasks necessary for the provision of such UNEs. She testified that consideration was given to anticipated productivity improvements and potential technological advances that may impact the amount of time required. She also maintains that economies of scale are reflected in the input values developed by BellSouth.[109]

Ms. Caldwell emphasizes that such inputs should be forward-looking, realistic, and achievable for BellSouth. She asserts that the objective is to determine the cost which BellSouth will incur on a going forward basis. To that end, Ms. Caldwell maintains that BellSouth's experts are most certainly in the best position to know what must be done and will be done to provision UNEs on a going forward basis. BellSouth, therefore, asserts that it is appropriate to utilize the inputs developed by the BellSouth subject matter experts.[110]

Ms. Caldwell disclosed that BellSouth had included disconnect costs as well as connect costs for the nonrecurring charges it proposed. She points out that BellSouth developed prices for eight types of network elements required by the FCC, including: (1) loops; (2) subloops; (3) the network interface device (NID); (4) circuit switching; (5) packet switching (in limited circumstances); (6) interoffice transmission facilities; (7) signaling and call related databases; and (8) operational support systems (OSS).

3. <u>The Position of the CLEC Intervenors</u>

The CLEC intervenors object to the task times associated with the nonrecurring rates proposed by BellSouth on the basis that the task and dispatch times are supported by no evidence other than information from the BellSouth subject matter experts. The specific objections of the CLECs concerning task and dispatch times largely relate to xDSL loops and will, therefore, be discussed more fully below in the discussion of xDSL loops. The additional

[109] Tr. p. 2101-2105 (*Caldwell*).
[110] BellSouth Post Hearing Brief p. 25.

challenges to BellSouth's nonrecurring cost proposals are discussed in the remainder of this section of the Order.

4. The Findings and Conclusions of the Commission

After thorough consideration of the arguments raised by all parties, including those related to appropriate task times, the Commission has discounted nonrecurring costs by 50% with the exception of certain xDSL elements which are discussed more fully below in Section VI. This decision was arrived at after thorough consideration of the CLEC Intervenor's recommendation for a 50% to 75% reduction of all of BellSouth's nonrecurring charges.[111]

We note, however, our disagreement with BellSouth's assumption that disconnect costs must be included in nonrecurring service connection charges. We instead conclude that it is most appropriate for all nonrecurring disconnect rates to be assessed at the time of disconnection.

IT IS SO ORDERED BY THE COMMISSION.

B. Collocation Costs

1. The General Position of BellSouth

BellSouth maintains that the cost studies it filed in this proceeding sufficiently demonstrate the costs BellSouth will incur on a going forward basis to provide CLECs with collocation. BellSouth notes that costs for more than 85 collocation elements are set forth as the "H" elements on BellSouth Exhibit JAR-1. In his prefiled testimony, Mr. Shell of BellSouth described the different forms of collocation BellSouth makes available to CLECs and the different costs attributable to each type.[112]

2. The Position of the CLEC Intervenors

ITC DetlaCom and WorldCom maintain that BellSouth's failure to comply with TELRIC is particularly noticeable with regard to BellSouth's proposed rates for physical collocation. In

[111] ITC DeltaCom/WorldCom Post Hearing Brief p. 24.

particular, they contend that BellSouth fails to account for future collocation rent in its expense forecast because collocation rent offsets land, building, and power expenses. ITC DeltaCom and WorldCom assert that BellSouth's failure to account for these future rents will lead to a double recovery of land, building, and power expenses.[113]

ITC DeltaCom and WorldCom further note that BellSouth's witness, Mr. Shell, readily admits that no studies were completed to develop BellSouth's collocation costs. Specifically, they assert that no time and motion studies or any other study to determine the amount of time involved in completing the physical collocation work were conducted. Instead, BellSouth simply inquired of certain employees how long they think it takes them to perform their jobs.[114]

In further support of their position, ITC DeltaCom and WorldCom point to the time BellSouth allotted for collocation application review. Specifically, they note that BellSouth proposes 50.75 hours to review one ten page application for collocation. ITC DeltaCom and WorldCom maintain that such an allotment is inappropriate and does not reflect the efficiencies gained by the electronic submission of collocation applications.[115]

ITC DeltaCom and WorldCom also represent that BellSouth's proposed rates for caged collocation are obviously over priced and are based on internal employee time estimates that are grossly exaggerated. They question whether any employee would agree that they could do their job in less time for any reason, much less to benefit a competitor.[116]

ITC DeltaCom and WorldCom further contend that none of the rates proposed by BellSouth for modifications to existing collocation space are appropriate. They maintain that much like BellSouth's space availability application and firm order processing fees, the modification fees proposed by BellSouth are based on BellSouth's historic and embedded

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[112] Tr. p. 729-730 (*Shell*).
[113] Tr. p. 2809-2810 (*Darnell*).
[114] Tr. p. 760; 771-772 (*Shell*).
[115] Tr. p. 740; 753-757; and 762 (*Shell*).
[116] ITC WorldCom Post Hearing Brief at p. 40.

costs. ITC DeltaCom and WorldCom maintain that any forward-looking costs of these activities would be more appropriately recovered as part of the recurring rates for the space in the central office which is what would occur in an open, competitive market.[117]

ITC DeltaCom and WorldCom further assert that the rates for cageless collocation should be almost identical to the rates for virtual collocation. They maintain that the only major difference between the cost associated with a virtual arrangement and a cageless arrangement are those costs associated with the installation and maintenance and repair of the CLECs collocating equipment. ITC DeltaCom and WorldCom maintain that because the CLEC is responsible for the installation, maintenance, and repair of its equipment in a cageless collocation, cageless collocation should be less expensive than virtual collocation. In addition, ITC DeltaCom and WorldCom assert that there should be no application cost for cageless collocation, nor should there be a charge for a security escort if BellSouth does not require security escorts for itself or its authorized contractors.[118]

ITC DeltaCom and WorldCom maintain that the Commission has previously examined the issue of cageless collocation rates in the ITC DeltaCom BellSouth arbitration and determined that cageless collocation is more akin to virtual collocation than physical collocation. ITC DeltaCom and WorldCom contend that BellSouth readily admits that heating, ventilation, and air conditioning costs occur in both a virtual and cageless collocation environment, but argue that because the space is unprepared, the cost of cageless collocation is higher than virtual collocation. They note that BellSouth admits, however, that prepared space exists and that CLECs can use that prepared space.[119]

ITC DeltaCom and WorldCom further challenge BellSouth's proposed charge for security costs because they contend that such costs are allocated so that regardless of the amount of

[117] Tr. p. 800; 803-807; 812-827 (*Shell*).
[118] Tr. p. 3243-3244 (*Wood/Wilsky*).
[119] Tr. p. 840-845 (*Shell*).

space occupied, carriers pay the same charge (i.e. on a per capita basis) for a security card key system existing or to be installed in the future. ITC DeltaCom and WorldCom maintain that if BellSouth is to recover costs for security that would be applied to CLECs and BellSouth equally, it should do so on a pro rata, per square foot basis across all usable space in a premises. They contend that such an approach is reasonable because it will assess each carrier (including BellSouth) a cost that is related to the benefit that carrier derives from the security system. ITC DeltaCom and WorldCom note that the Public Service Commissions of Florida and Georgia have endorsed such an approach.[120]

3. <u>BellSouth's Specific Response to the CLEC Arguments</u>

BellSouth strongly opposes the notion that the cost of cageless physical collocation and virtual collocation should be the same. As Mr. Shell of BellSouth notes, cageless collocation and virtual collocation are very different arrangements that cause BellSouth to incur different costs to provide. Mr. Shell states that Mr. Wood's assumption that the cost should be the same because BellSouth places cageless physical collocation within BellSouth's equipment lineup is incorrect because BellSouth in fact does not place cageless physical collocation equipment in a BellSouth lineup, rather it places the CLECs equipment in an area designated specifically for the CLEC's equipment just like in caged collocation scenarios. BellSouth asserts that the only difference is that no cage is constructed.[121] BellSouth maintains that Mr. Wood's erroneous assumption that BellSouth places cageless physical collocation within BellSouth's equipment lineup is based on &42 of the FCC's *Advanced Services Order*[122]which purported to require

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[120] ITC DeltaCom/WorldCom Post Hearing Brief at p. 42-43 [*Citing In Re: Petition of MCI Metro Access Transmission Services, LLC and MCI WorldCom Communications, Inc. for Arbitration of Certain Terms and Conditions of Proposed Agreement With BellSouth Telecommunications, Inc. Concerning Interconnection Resale Under the Telecommunications Act of 1996*; Docket No. 11901-U; *In Re: Petition of Competitive Carriers For a Commission Action to Support Local Competition in BellSouth Telecommunications, Inc. Service Territory,* Docket No. 981834-TP.; *In Re: Petition of ACI Corp., d/b/a Accelerated Connections, Inc., etc.,* Docket No. 990321-TP, Order No. PSC-ALT941-FOF-TP (May 11, 2000).

[121] Tr. p. 732-734 (*Shell*).

[122] *In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147 (Mar. 31, 1999) ("*Advanced Services Order*").

ILECs to allow CLECs to place equipment within the ILECs equipment lineup in physical cageless collocation arrangements. BellSouth notes Mr. Wood failed to reveal, however, that the D.C. Circuit Court of Appeals expressly reversed &42 of the *Advanced Services Order* more than one year before Mr. Wood filed his testimony relying on, and quoting from, &42.[123] BellSouth, therefore, maintains that there is no valid legal authority to support Mr. Wood's arguments in this regard.

BellSouth also contends that Mr. Wood's contention that there should be no application fee for cageless physical collocation is misplaced because he again relies on the fallacy of the legally incorrect proposition that CLEC equipment is placed in BellSouth's equipment lineup in cageless collocations to support his position. In any event, BellSouth maintains that it does in fact incur costs in responding to requests for cageless collocation and is, therefore, entitled to recover those costs.[124]

3. <u>The Findings and Conclusions of the Commission</u>

We note that the Commission previously rendered a determination on many of the collocation issues raised by the CLEC Intervenors in this cause in our Order entered in Docket 28089 on March 11, 2002. Said Order addressed attempted revisions by BellSouth to its collocation tariff and is incorporated herein by reference. For ease of reference we have attached said Order as Appendix B to this Order.

After due consideration of the arguments raised by the parties, we arrived at the revised collocation rates established herein. It is our belief that those rates are just, reasonable, and within an acceptable range of what the TELRIC methodology is designed to produce.

IT IS SO ORDERED BY THE COMMISSION.

C. <u>The Recovery of Nonrecurring Costs through Recurring Rates</u>

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[123] BellSouth Post Hearing Brief at p. 30 [*Citing GTE Service Corp. v. FCC*, 205 F.3d 416, 426 (D.C. Cir. 2000)].
[124] Tr. p. 3244 (*Shell*).

1. The Positions of the Parties

Mr. Darnell, testifying on behalf of WoldCom suggests that all nonrecurring costs could be properly recovered through recurring rates and that the Commission could determine that "all nonrecurring charges for UNEs should be zero."[125] BellSouth seriously disputes Mr. Darnell's contention in that regard.

BellSouth asserts that nonrecurring costs principally recover labor costs and direct expenses incurred when a specific element or service is provisioned as the result of a service order. BellSouth maintains that since these expenses are incurred immediately, they must also be paid immediately by the ILEC. For this reason, BellSouth states that it included all such costs in the nonrecurring rates it proposes in this proceeding.[126]

BellSouth asserts that although a CLEC can choose how to price a service to its end user to recover a portion (or all) of the nonrecurring rate, the CLEC should reimburse BellSouth's nonrecurring costs through nonrecurring rates. BellSouth maintains that if it is required to recover immediately incurred, nonrecurring costs over time through recurring rates, it will in fact be put in the position of financing the operations of CLECs and thus bearing the ultimate risk that such costs will not be recovered. BellSouth asserts that with such a requirement, the up front costs that BellSouth incurs and pays to provision service to a CLEC end user will go uncompensated if the CLEC subsequently loses that end user's business or becomes insolvent.[127]

2. The Findings and Conclusions of the Commission

While this Commission is greatly aware of potential barriers to competition, it also realizes that nonrecurring costs are valid and are incurred by ILECs immediately when requests for unbundled network elements are processed. We further recognize that ILECs have a great

[125] Tr. p. 2812-2813 (*Darnell*).
[126] BellSouth Post Hearing Brief p. 27.
[127] *Id.* at p. 27-28.

potential for the nonrecovery of these costs if they are treated as recurring. Therefore, the Commission herein determines that nonrecurring costs shall be recovered as nonrecurring items subject to the discounts previously discussed in greater detail.

IT IS SO ORDERED BY THE COMMISSION.

VI. xDSL Loops

A. Overview

"xDSL capable loops" are those loops that have the physical characteristics needed to provide an xDSL service and can be inventoried as such in BellSouth's assignment systems, so as to avoid network problems and customer outages.[128] The requirements for an xDSL capable loop are more stringent than those necessary to provide basic voice, or plain old telephone service ("POTS"). Voice service can be provisioned over practically any type of facility – fiber, DLC, loaded copper, non-loaded copper, bridged-tapped copper, or any mixture of all of these. xDSL-type services, however, generally require an all copper facility that does not contain any impediments such as repeaters, load coils, or excessive bridged tap.[129] BellSouth contends that copper loops must be no more than 18,000 feet in length in order to accommodate xDSL type services. Thus, while all xDSL-capable loops will support voice service, not all voice grade loops (or SL1s) will support xDSL-type services.

B. The Position of BellSouth

BellSouth represents that it offers a number of loops capable of supporting xDSL services and for which the Commission should establish recurring and nonrecurring rates. These xDSL loops include the following *designed* copper loop offerings:

> High Bit-Rate Digital Subscriber Line ("HDSL") Compatible Loop: The 2- and 4-wire copper loops are best suited for HDSL services; strict transmission requirements for these loops mean that the end user must be served by a non-loaded copper pair, and the loop typically cannot be more than 12,000 feet long on 24 gauge copper wire. If 26 gauge copper wire is used, the limit is 9,000 feet

[128] *See* Tr. p. 1289-1293 (*Milner*); Tr. p. 478-479 (*Latham*); Tr. p. 1942-1944 (*Caldwell*).
[129] Tr. at 478-479 (*Latham*).

> or less. In either case, the loop may have up to 2,500 feet of bridged tap with no single bridged tap exceeding 2,000 feet.
>
> Asymmetrical Digital Subscriber Line ("ADSL") Compatible Loop: The applicable industry standards for this 2-wire copper loop dictate that such loops may be up to 18,000 feet long and may have up to 6,000 feet of bridged tap which is inclusive of the loop length. This means that for every foot of bridged tap, the loop length is reduced by an equal amount.
>
> Unbundled Copper Loop ("UCL") – These 2- and 4-wire copper loops are segmented between loops less than 18,000 feet ("UCL-Short") and loops greater than 18,000 feet ("UCL-Long"). The UCLs are commonly referred to as "dry copper" loops because they have no intervening equipment such as, load coils, bridged tap, repeaters, etc., between the end user premises and the serving wire center. The UCL-Short will be designed to Resistance Design on a non-loaded metallic facility up to 18,000 feet in length. The UCL-Long will be any copper loop longer than 18,000 feet in length. BellSouth does not guarantee the transmission quality beyond the resistance design standards.[130]

BellSouth also offers other loops that may be used to support xDSL service. In particular, BellSouth offers its Integrated Services Digital Network ("ISDN")-capable loop and its Universal Digital Channel ("UDC")-capable loop, both of which may support the xDSL service known as Integrated Digital Subscriber Line ("IDSL"). BellSouth represents that it provisions its ISDN-capable loops according to applicable industry standards which means they may be provisioned over copper or via a DLC system. These loops are also free of any load coils, but are not referred to as "clean copper loops" because they may be provisioned via DLC systems which are compatible with ISDN service. BellSouth notes that the UDC is identical to the ISDN loop, except that it is provisioned uniquely to support IDSL service.[131]

BellSouth further notes that each loop type offered by BellSouth will not support every CLEC's various xDSL offerings, because each xDSL service is highly dependent upon the equipment being used. For example, one vendor's DSLAM may operate on an 18,000 foot loop with minimal bridged tap, while another's may not. BellSouth contends that this is one reason

[130] Tr. p. 1289-1291 (*Milner*).
[131] Tr. p. 1292 (*Milner*).

BellSouth offers a number of different loop types so that each CLEC can decide for itself which particular loop type to use to support its particular xDSL service.

In response to the CLECs' requests for a non-designed xDSL capable loop, BellSouth also points out that it recently began offering the Unbundled Copper Loop-Non-Designed (UCL-ND), a copper xDSL-capable loop that is both provisioned and priced similarly to the SL1.[132]

BellSouth explains that xDSL-capable loops, like any other loop, may or may not need to be designed. While xDSL services do not necessarily require a design process, a particular CLEC may want the loop to have attributes that only the design process can accommodate. Therefore, it is up to the CLEC whether to order a designed loop.

All of the xDSL-capable loops offered by BellSouth, except the UCL-ND, are "designed." This means that BellSouth identifies the physical characteristics of each xDSL-capable loop and documents those characteristics on a Design Layout Record ("DLR"), which is provided to the CLEC so the CLEC can be assured that the loop meets specified design parameters. A "designed" loop also comes with test points, which allows BellSouth to conduct certain tests remotely in the event a trouble is reported on the line.[133]

BellSouth contends that it is entitled to recover the costs of the design process when CLECs request designed loops. BellSouth further contends that it is appropriate for a cost study for xDSL-capable loops to recognize factors such as loop length and the particular xDSL technology deployed in developing costs because the costs of provisioning xDSL-capable loops are a function of such matters. Specifically, BellSouth maintains that taking loop length into account in developing costs is a reflection of the physical make-up of the loop because the cost of copper loops increases incrementally with length. BellSouth represents that its proposed rates for short and long xDSL-capable loops reflect this principle.[134]

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[132] Tr. p. 2142-2143 (*Caldwell*).
[133] Tr. p. 1366-1367 (*Greer*).
[134] BellSouth Post Hearing Brief p. 34.

C. <u>The Position of the CLEC Intervenors</u>

The CLEC intervenors note that the offering of the UCL-ND loop by BellSouth represents progress, but they assert that BellSouth continues to enormously and unnecessarily inflate the task times necessary to provision all types of xDSL loops. The CLECs point out that BellSouth supported the task times and other assumptions in its cost study with the testimony of Mr. Greer. By his own admission, however, Mr. Greer has never placed jumpers or supervised those who did, nor has he performed central office technician work. Mr. Greer further conceded that he was not an outside plant engineer and had not supervised the work of such individuals. Mr. Greer furthermore admitted that he was not an expert in OSS or in the systems BellSouth was rolling out for xDSL loop provisioning.[135]

D. <u>The Findings and Conclusions of the Commission</u>

The Commission recognizes the importance of xDSL loops in today's competitive landscape. After considering the positions of the respective parties, the Commission has determined that the nonrecurring rates for xDSL capable loops proposed by BellSouth should be reduced by 53%. The following elements were reduced by the above stated percentage:

(1) A6 (2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop);
(2) A7 (2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop);
(3) A8 (4-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop);
(4) A13 (2 Wire Copper Loop); and
(5) A14 (4 Wire Copper Loop)

The reduction ordered results from an appropriate consideration of the task times and other factors related to the provision of xDSL loops and results in rates that fall within an acceptable range of what the TELRIC methodology is expected to produce.

***IT IS SO ORDERED BY THE COMMISSION*.**

[135] Tr. p. 1398-1406 (*Greer*).

IV. Loop Conditioning

A. Overview

Loop conditioning (also referred to as loop modification) involves the process of removing the devices from a copper loop that diminish the loop's capacity to deliver advanced services. Load coils and bridged tap are sometimes present on copper loops in order to permit or enhance voice service over the loop. These "disturbers" often prevent the transmission of data signals over the loop, however.[136] ILECs such as BellSouth are required to condition, or remove, such disturbers on loops upon the request of a CLEC so that the CLEC can use the loop to provide xDSL service.[137]

B. The General Position of BellSouth

BellSouth asserts that the Commission should adopt rates for Unbundled Loop Modification ("ULM") services in connection with conditioning an unbundled loop as proposed by BellSouth, including the ULM – Additive. BellSouth contends that the ULM rates for load coil and bridged tap removal should apply whenever BellSouth performs this work at the request of a CLEC because BellSouth incurs costs in performing such functions.

BellSouth has proposed three nonrecurring rates for loop conditioning: (1) ULM Load Coil/Equipment Removal – Short; (2) ULM Load Coil/Equipment Removal – Long; and (3) ULM – Bridged Tap Removal. BellSouth's rate proposal distinguishes load coil and equipment removal depending upon the length of the loop in order to differentiate the anticipated work activity for loops less than 18,000 feet (designated as Short) and loops over 18,000 feet (designated as Long). Unlike load coil removal, BellSouth asserts that the work involved in removing bridged tap is not dependent on loop length.[138]

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[136] Tr. p. 1295 (*Milner*).
[137] *Third Report and Order*, CC Docket No. 96-98 (Nov. 5, 1999) ("*UNE Remand Order*"), &&190-191; S*ee also* Tr. p. 3356 (*Wood*).
[138] Tr. p. 482 (*Latham*).

BellSouth has also proposed the ULM – Additive rate, which BellSouth contends is designed to recover part of the cost of removing load coils on copper loops of less than 18,000 feet. Because BellSouth assumes that it will remove load coils from such loops for 10 pair at one time on average, and only 1/10th of the cost of load coil removal is reflected in the rate for ULM Load Coil/Equipment Removal – Short, BellSouth contends that its additive approach is a reasonable method of recovering the remaining 90% of the load coil removal costs.[139]

C. <u>The Position of the CLEC Intervenors</u>

The CLEC intervenors assert that BellSouth's proposed charge for line conditioning is entirely inconsistent with TELRIC principles. In particular, SECCA witnesses Mr. Wood and Ms. Wilsky contend that BellSouth proposes recurring costs based on a forward-looking network design, but proposes nonrecurring costs for the loop and/or line modification for the same elements assuming that its embedded network will remain in place. Because BellSouth cannot and does not assume the use of load coils or excessive bridged tap in its forward-looking network design, they contend that BellSouth should not be permitted to charge for removal of load coils or excessive bridged tap in a loop conditioning charge. Mr. Wood and Ms. Wilsky conclude that because a forward-looking network would not contain load coils or excessive bridged tap, the TELRIC cost of loop conditioning is zero.[140]

The Data Coalition contends that any loop conditioning charge the Commission allows ILECs to impose upon CLECs constitutes a windfall since the ILECs already recover the cost of conditioning through recurring loop rates. The Data Coalition maintains that the Commission must ensure that the ILEC's nonrecurring cost methodologies remain consistent with their

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[139] Tr. p. 482-484 (*Latham*). In developing the additive, it was assumed that 2 pair will be used by the requesting carrier ordering the ULM Load Coil/Equipment Removal – Short (even though, historically, orders for load coil removal for loops less than 18 kft. have been for one loop at a time). Forty percent of the cost for unloading the 10 pair is essentially absorbed by BellSouth, which means that it is assumed that 4 pair of the 10 unloaded pair will be used by BellSouth. The remaining 40% of the total cost of unloading 10 pair is spread across the entire forecast of ADSL-compatible loops, HDSL-compatible loops, and Unbundled Copper Loops – Short and is included in the nonrecurring rate for these elements.

[140] Tr. p. 3226-3227 (*Wood/Wilsky*).

recurring methodology in order to prevent the ILECs from double recovering for their network costs.[141]

The Data Coalition accordingly asserts that the appropriate forward-looking cost for loop conditioning is zero and cites three principles in support of its position in that regard. The Data Coalition first contends that a forward-looking network designed to engineering guidelines in place since the early 1980s does not contain load coils or excessive bridged tap.[142] Since those impediments are not found in a forward-looking network, there can be no charge for removing them from BellSouth's embedded network.

The Data Coalition secondly contends that BellSouth's recurring cost model is based on a forward-looking network architecture that does not contain load coils or excessive bridged tap.[143] By introducing nonrecurring costs based on a network architecture that does include load coils and excessive bridged tap, the Data Coalition maintains that BellSouth has violated the FCC's TELRIC rules.

The Data Coalition thirdly contends that evidence in the record establishes that BellSouth considers conditioning for its retail services as part of routine maintenance and, therefore, does not charge its retail customers for performing this work. As a result, BellSouth's proposed nonrecurring charges for competitors discriminates against those competitors.[144]

The Data Coalition's witness, Mr. Fassett, explained that a 1983 directive from AT&T to all of its regions expressly prohibited the placement of load coils or excessive bridged tap on loops shorter than 18,000 feet.[145] Mr. Fassett contends that this directive provides convincing evidence that a forward-looking network is built without load coils or excessive bridged tap. Even BellSouth concedes that load coils and other impediments that obstruct DSL service

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[141] Data Coalition Post Hearing Brief p. 34.
[142] Tr. p. 2465-2474 (*Fassett*).
[143] Tr. p. 2427-2428 (*Fassett*).
[144] Data Coalition Post Hearing Brief p. 35.
[145] Tr. p. 2423 (*Fassett*).

would not exist in a forward-looking network.[146] Indeed, Mr. Fassett testified that there is no need at all for load coils on loops shorter than 18,000 feet.

The Data Coalition thus contends that allowing the ILECs to impose a separate nonrecurring charge for loop conditioning is inconsistent with a forward-looking network which has no need for load coils, bridged tap repeaters, or other devices that interfere with xDSL service.[147]

Mr. Fassett also notes that BellSouth proposed nonrecurring rates for loop conditioning predicated upon network assumptions that are inconsistent with the assumptions underlying the recurring rates for those same loops. For example, Mr. Fassett notes that for purposes of setting recurring costs, BellSouth assumes that longer loops will be provisioned over next generation digital loop carrier. Nonetheless, for the purpose of setting nonrecurring costs, BellSouth assumes an entirely different network configuration. The Data Coalition contends that such inconsistencies, if permitted by the Commission, will lead to a double recovery that is inconsistent with both the FCC's rules and good public policy.[148] Mr. Fassett notes that several state Commission's, including Massachusetts, California, Minnesota, and Utah have recognized the need to base rates on a single forward-looking network architecture.[149]

Mr. Fassett further contends that since BellSouth does not impose nonrecurring conditioning charges on its retail customers, the Commission should set conditioning rates at zero. Mr. Fassett represents that provisioning a DS1 (commonly known as a T1) or ISDN loop to a retail customer requires the same conditioning activity as provisioning an xDSL loop to a wholesale customer. To enable loops to support ISDN service or T1 service, BellSouth must condition those loops as they do xDSL loops. Although BellSouth proposes to impose a large nonrecurring charge upon CLECs requiring conditioning for xDSL loops, the Data Coalition

[146] Tr. p. 502-503 (*Latham*).
[147] Data Coalition Post Hearing Brief p. 36.
[148] *Id.*

asserts that BellSouth witnesses Caldwell and Latham admit on cross-examination that BellSouth's retail customers purchasing ISDN and DS1 services do not pay a separate charge for loop conditioning.[150] The Data Coalition thus contends that BellSouth is either recovering for that work in its maintenance charges as described above, or is waving the charge for its retail customers. Either way, the Data Coalition contends that BellSouth's competitors are being discriminated against due to the imposition of enormous and unsubstantiated nonrecurring charges.[151]

Although the Data Coalition believes that the evidence of record does not support the imposition of a nonrecurring charge for loop conditioning, the Data Coalition asserts that any such charge that is imposed by the Commission must be based on forward-looking pricing principles. The Data Coalition specifically contends that BellSouth's proposed task times introduced in support of its loop conditioning charges are grossly inflated and are not substantiated by the evidence of record. The Data Coalition contends that BellSouth failed to bear its burden of proving the appropriateness of its proposed loop conditioning charges by offering only the testimony of Mr. Greer who admitted on cross-examination that he had never conditioned a loop, never supervised personnel who had conditioned loops, and had never performed outside plant engineering work.[152]

The Data Coalition further contends that Mr. Fassett's testimony conclusively shows that BellSouth's unsupported task times are inflated to the point of absurdity. The Data Coalition asserts that unlike the anonymous subject matter experts who participated in the compilation of BellSouth's task times introduced in support of its loop conditioning costs, Mr. Fassett appeared before the Commission to subject his assumptions, opinions, and conclusions to cross-examination. The Data Coalition maintains that because the testimony of Mr. Fassett is the only

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[149] *Id.*
[150] Tr. p. 504-507 (*Latham*).
[151] Data Coalition Post Hearing Brief p. 40.

reliable, probative, and detailed evidence on the costs of efficient loop conditioning in the record, the Commission should adopt the Data Coalition's cost estimates and rates.

The Data Coalition lastly asserts that nonrecurring charges for loop conditioning must be based on the conditioning of 50 pairs at a time rather than the 10 proposed by BellSouth. According to Mr. Fassett, the outside plant network of every ILEC is built around maintaining the integrity of a 25 pair cable. When the ILECs added load coils to the network 30 years ago, they inserted splicing modules for the entire 25 pair binder group.[153] Thus, when a copper pair in that cable must be unloaded, Mr. Fassett contends that it makes the most sense to unload the entire 25 pair complement. Mr. Fassett maintains that it would "create chaos in the network" to intentionally have some loaded and some unloaded pairs in the same cable as BellSouth suggests. Moreover, since conditioning work requires a truck roll, it makes more sense to condition as many pairs as possible at one time.[154]

Mr. Fassett also maintains that BellSouth unreasonably estimates that 90% of the time it conditions loops for CLECs, the loops will be underground and require access through a manhole. The Data Coalition concedes that there is little dispute that conditioning underground loop facilities that must be accessed through a manhole is far more time consuming and expensive than conditioning buried or aerial loops. However, the Data Coalition contends that BellSouth's estimate that 90% of the loops requiring conditioning will be underground is completely unsupported when the evidence of record shows that only 5.1% (by distance) of BellSouth's plant is underground according to information reported to the FCC by BellSouth.[155] Since BellSouth made no effort to survey its Alabama network to estimate where facilities might

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[152] Tr. p. 1402-1406 (*Greer*).
[153] Tr. p. 2469-2470 (*Fassett*).
[154] Data Coalition Post Hearing Brief p. 45.
[155] Tr. p. 2473-2474 (*Fassett*).

be located, the Data Coalition contends that the Commission must rely on the information BellSouth provided to the FCC.[156]

D. BellSouth's Specific Response to the CLEC Arguments

BellSouth does not dispute that a forward-looking network being designed today would not include load coils. BellSouth nonetheless contends that CLECs are requesting conditioned copper loops from BellSouth's existing network, which contains both load coils and bridged tap. Since the removal of these elements is a very real on-going cost that BellSouth will incur each and every time a CLEC requests that BellSouth condition a loop, BellSouth asserts that it is appropriate to impose a charge for such services.[157]

BellSouth in fact contends that the FCC could not have been more clear that BellSouth is entitled to recover the costs associated with loop conditioning, notwithstanding that load coils and bridged tap may not be included in a "forward-looking" network design. According to BellSouth, the FCC stated in no uncertain terms that: "Under our rules, the incumbent should be able to charge for conditioning such loops."[158]

Similarly, BellSouth notes that the North Carolina Utilities Commission recognized in its recent Recommended Order addressing this issue that the FCC rules mandate that BellSouth be permitted to charge for loop conditioning.[159] BellSouth argues that this Commission should likewise follow the direction of the FCC and the North Carolina Commission and rule that BellSouth is entitled to charge for loop conditioning.

There was also considerable argument among the parties concerning the assumptions underlying the loop conditioning charges proposed by BellSouth. BellSouth contends that it

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[156] Data Coalition Post Hearing Brief p. 47.
[157] Tr. p. 1695, 3356-3357 (*Starkey, Wood/Wilsky*).
[158] *UNE Remand Order* &193. *See also Advanced Services Order* &82 (concluding that "although loops of 18,000 feet or shorter normally should not require voice-transmission enhancing devices, these devices are sometimes present on such loops and the incumbent LEC should be able to charge for conditioning such loops").
[159] "The Commission cannot find any basis for barring the ILECs from charging for loop conditioning and therefore concludes that the ILECs should be allowed to charge for conditioning loops for xDSL services." *Recommended Order*, Docket No. P-100, Sub 133d ("N.C. *Recommended UNE Order*"), at 32.

developed the assumption that it will remove load coils and other equipment from loops less than 18,000 feet ten pair at a time based upon BellSouth's own experiences and practices in administering its network. BellSouth in fact represents that this same assumption is incorporated into the cost studies for BellSouth's own tariffed Business Class ADSL service. BellSouth maintains that incorporating the same 10-pair load coil removal assumption in both its ADSL and UNE cost studies ensures consistency.[160]

BellSouth further contends that there are a number of technical reasons for not unloading 50 or even 25 pairs at one time, as proposed by the Data Coalition. First, load coils are commonly used to improve voice grade transmission for copper loops longer than 18,000 feet, and BellSouth has installed load coils on loops less than 18,000 feet in order to reduce the attenuation loss and improve the attenuation distortion. BellSouth maintains that it is for this reason that, in metropolitan areas, many loops as short as 12,000 feet are loaded in order to improve the transmission characteristics for Centrex lines and for PBX trunks. Second, the churn in Outside Plant Engineering ("OSPE") facilities has spread working loop feeder pairs throughout the entire complement of available pairs. In other words, there are few "clean" loop feeder cable pair counts (01 to 50 or 75 to 100, for example) that are all spare and that can have load coils removed from all pairs at one time without adversely affecting service.[161]

Thirdly, BellSouth contends that because BellSouth's loops are used to provide both POTS and special services, many of BellSouth's loops are used for designed circuits. According to BellSouth, the design process specifically accounts for the fact that the loop has load coils in order to meet transmission requirements. BellSouth argues that removing load coils from loops designed to take the load coil into account for proper transmission performance is problematic when the customer is being served by that loop.[162]

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[160] Tr. p. 483-484 (*Latham*).
[161] BellSouth Post Hearing Brief p. 37.
[162] BellSouth Post Hearing Brief p. 37-38.

Fourthly, BellSouth contends that feeder pairs must be uniform, which makes it often infeasible to unload 50 or even 25 pairs at one time. At any given cross box, there are only three possible loop provisioning scenarios: (1) all loops are served entirely over copper; (2) all loops are served by DLC or; (3) some loops are served by copper and some loops are served by DLC. Because all loop feeder pairs in a given cross box must be capable of serving any loop distribution pair in that cross box, BellSouth represents that the entire feeder complement must be loaded if the design of the distribution area requires loaded pairs (e.g., the longest loop served by that cross box will be longer than 18,000 feet).[163]

BellSouth maintains that the CLEC argument that BellSouth should unload 50 pair at one time should be seen for what it is – an attempt by BellSouth's competitors to artificially reduce the loop conditioning costs they must pay. BellSouth asserts that any proposal that loop conditioning costs be calculated based on the assumption that 50 pair will be conditioned at one time obviously reduces the loop conditioning costs on a per pair basis. Under such a proposal, however, BellSouth contends that it would have to absorb the vast majority of those costs. BellSouth thus argues that the CLECs proposal is unreasonable and should be rejected by this Commission as it was by the North Carolina Commission.[164]

BellSouth also disputes the remaining CLEC challenges to the assumptions underlying BellSouth's loop conditioning cost studies[165] contending that its assumptions are based upon a sound knowledge of outside plant engineering and BellSouth's own network. For loaded loops less than 18,000 feet, BellSouth notes that it assumes 2.1 load coils, which is the weighted average of 2 load coils on 90% of the loops and 3 load coils on 10% of the loops. For loops greater than 18,000 feet, BellSouth's cost study shows a weighted average of 3.15 load coils.[166]

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[163] BellSouth Post Hearing Brief p. 38.
[164] *N. C. Recommended UNE Order*, at 40.
[165] Tr. p. 2468 (*Fassett*).
[166] The 3.15 load coils on loops greater than 18,000 feet is based on the assumption that 90% of such loops will have three load coils, 5% will have four load coils and 5% will have five load coils. Tr. p. 1379-1380 (*Greer*).

Regarding bridged tap, BellSouth maintains that it is not suggesting that there is excessive bridged tap at three points on a loop, as Mr. Fassett states in his testimony. BellSouth instead contends that when a CLEC requests ULM for bridged tap removal, BellSouth will remove the bridged tap, if possible, that is requested by the CLEC. On average, BellSouth represents that bridged tap will be at three locations – one underground location in the feeder cable, and two locations in the distribution, which will be in a buried or aerial environment.[167] BellSouth contends that its assumptions are entirely reasonable.

BellSouth also challenges Mr. Fassett's reduction of work times for performing loop conditioning on plastic insulated conductor ("PIC") cable with modular connectors.[168] BellSouth maintains that the efficiency gains from Mr. Fassett's assumptions are not applicable to the loop conditioning performed on BellSouth's network today. While PIC cable may have been available in the late 1960's, BellSouth notes that it continued to use pulp cable because pulp cable's smaller diameter allowed BellSouth to maximize the usage of duct space in the underground environment. BellSouth in fact estimates that in Alabama, approximately 91% of BellSouth's underground cable is pulp.[169]

BellSouth represents that pulp cable did not lend itself to modular connection as other cable did. Accordingly, even though modular connectors became more prevalent with pulp cable, BellSouth asserts that there is no certainty that a given module has 25 sequential pairs.[170]

BellSouth also contends that Mr. Fassett's list of work activities and times for removing load coils are entirely unrealistic.[171] BellSouth argues that Mr. Fassett's proposed work times

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[167] Tr. p. 1380 (*Greer*).
[168] Tr. p. 2469 (*Fassett*).
[169] Tr. p. 1381 (*Greer*).
[170] BellSouth Post Hearing Brief p. 40.
[171] Tr. p. 2485-2486 (*Fassett*).

appear to be the absolute minimum in which the task could be performed assuming near perfect conditions.[172]

BellSouth additionally contends that Mr. Fassett makes numerous unsupported assumptions regarding BellSouth's network that have the effect of decreasing the possible work times to perform the unloadings. For instance, Mr. Fassett assumes PIC cable in the underground environment that is perfectly spliced with no errors. For work times in the buried environment, he assumes that the splice is always accessible via a ready access terminal or pedestal. BellSouth contends, however, that in many instances, the splice will in fact be buried, requiring additional cost and time to perform the job.[173]

BellSouth represents that in order to achieve his incredible work times, Mr. Fassett assumes a network that is nothing short of perfect, with ideal working conditions where no one ever makes a mistake. BellSouth contends that its work tasks and times are based upon its real experience with its actual network and reflect the costs that BellSouth will incur to perform those tasks requested by CLECs. For these reasons, BellSouth urges the Commission to approve the rates for loop conditioning proposed by BellSouth.

E. <u>The Findings and Conclusions of the Commission</u>

It is apparent from the foregoing that there was considerable debate concerning issues such as the number of pairs, the type of cable, and the appropriate task times associated with the provisioning of loops. The rates adopted herein for loop conditioning are reflective of the Commission's consideration of the issues raised.

We specifically conclude, however, that based on the evidence presented, the assessment of a ULM-additive is not consistent with the forward-looking principles of the TELRIC methodology. Therefore, the Commission has removed the ULM additive from the cost study. Furthermore, the Commission concludes that the rates for Loop Conditioning-Short

[172] Tr. p. 1381 (*Greer*).

proposed by BellSouth, should be zero because there is no need for disturbers to be found on loops less than 18,000 feet.[174]

IT IS SO ORDERED BY THE COMMISSION.

VII. Unbundled Network Element Deaveraging

A. Overview

Geographic deaveraging is the process of establishing UNE rates based on the variation and cost of providing network elements across distinct geographic areas. The purpose of geographic deaveraging is to more closely match rates charged for a UNE with the underlying cost incurred in making that element available. The FCC's pricing rules require at 47 C.F.R. §51.507(f) that:

> State commissions shall establish different rates for elements in at least three defined geographic areas within the state to reflect geographic cost differences.
>
> (1) To establish geographically-deaveraged rates, state commissions may use existing density related zone pricing plans described in §69.123 of this chapter, or other such cost-related zone plans established pursuant to state law.
> (2) In states not using such existing plans, state commissions must create a minimum of three cost-related rate zones.

The aforementioned rule is based upon the FCC's conclusion in its *First Report and Order*, that deaveraged rates more closely reflect the actual costs of providing interconnection and unbundled network elements.

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[173] Tr. p. 1381-1382 (*Greer*).
[174] The Loop Conditioning Element is Element A17.1.

B. The Positions of the Parties

BellSouth proposes deaveraging in three geographic areas utilizing existing BellSouth rate groups. BellSouth developed the three zones by partitioning the wire centers in Alabama into rate groups based upon BellSouth's General Services Subscriber Service Tariff. Next, the rate groups were classified into one of three zone designations. Average monthly costs were then calculated in each zone by weighting the wire-center level costs produced by the BSTLM by wire center line counts.[175]

Under BellSouth's approach, customers who are located in the same geographic area and who have similar local calling areas would be in the same deaveraged zone for UNE pricing. BellSouth thus contends that utilizing existing rate groups as the basis for establishing the three cost-related rate zones results in consistent prices for customers within the same geographic markets.[176]

BellSouth further maintains that defining the three geographic zones by rate groups also provides consistency between the structure of BellSouth's retail services, resale and UNE prices. BellSouth represents that the need for such consistency should be obvious, because CLECs use UNEs to compete with services offered at retail by BellSouth. Unlike prices for UNEs, however, BellSouth's rates for basic service were established in an inverse relationship to cost in order to ensure affordable local service for all urban and rural customers. As a result, deaveraging of UNEs will result in rates that vary in the opposite direction from the prices for BellSouth's retail services. BellSouth maintains that deaveraging via existing rate groups will ameliorate this problem to some extent.[177]

Mr. Darnell of WorldCom urges the Commission to reject BellSouth's deaveraging methodology. He instead encourages the Commission to utilize a deaveraging methodology

[175] Tr. p. 47-48 (*Ruscilli*).
[176] Tr. p. 49 (*Ruscilli*).
[177] Tr. p. 44-45 (*Ruscilli*).

which Sprint Communications Company, L.P. advocated in states such as North Carolina, Tennessee, and Florida.[178] Under the Sprint methodology, the cost of a UNE within a geographically defined area should not vary by more than 20% plus or minus of the average price of the UNE in that area.[179] Mr. Darnell's proposal results in nine different zones for an SL1 loop in Alabama.[180]

Mr. Darnell maintains that deaveraged UNE rates must reflect the relative forward-looking economic cost differences of the UNEs between geographic areas. He contends that BellSouth's proposal to deaverage UNE rates through the use of the average cost of wire centers that have the same retail cost is a violation of FCC rules. He maintains that if implemented, BellSouth's proposal would create non-cost based deaveraged UNE rates that send incorrect economic signals to the marketplace. Mr. Darnell in fact contends that BellSouth's proposal to create the geographic zones by rate group is a thinly veiled attempt to insulate its retail rates from cost-based competition.[181]

Additionally, Mr. Darnell states that by first grouping wire centers together by rate group, BellSouth's deaveraging methodology inappropriately raises the wholesale UNE rates in areas where its retail rates are high. According to Mr. Darnell, BellSouth's deaveraging methodology would take all of its wire centers that serve areas with the highest retail rates in the state and lump those wire centers together in one basket. Mr. Darnell notes that the problem with this method is that current retail rates are simply not related to cost and therefore the areas that wind up in each of BellSouth's deaveraging baskets do not all have similar cost characteristics. He maintains that BellSouth's methodology would lump together in the same basket areas that are low cost and areas that are high cost thereby raising the average cost of the low cost zone, which raises the deaveraged UNE rates for that zone. Mr. Darnell represents that the resulting

[178] Tr. p. 3018 (*Darnell*).
[179] *Id.*
[180] Tr. p. 3023 (*Darnell*).

inflated UNE rates would insulate BellSouth's high retail rates in low cost areas from some cost-based local competition using UNEs.[182]

BellSouth contends that there is no merit to Mr. Darnell's argument that utilizing the geographic boundaries of existing rate groups to deaverage UNE prices would violate the FCC's rules.[183] According to BellSouth, FCC Rule 51.507(f)(1) specifically grants state commissions the ability to establish geographically deaveraged prices using "existing density-related zone pricing plans described in §69.123 [Special Access and Switched Transport] of this chapter, or *other such cost-related zone plans established pursuant to state law.*" (emphasis added). According to BellSouth, the FCC clearly agreed that geographic zones that exist for retail services are a proper basis for establishing deaveraged UNE rates.

BellSouth contends that the fact that retail rates were established using a rate group structure does not "create non-cost based deaveraged UNE rates" in violation of FCC Rule 51.505(d), as WorldCom witness Darnell claims. BellSouth notes that it used its existing rate groups to establish the zones to which the deaveraged UNE rates apply. Contrary to Mr. Darnell's contention, BellSouth asserts that its proposed deaveraging methodology does not include any costs associated with offering retail telecommunications services.

C. <u>The Findings and Conclusions of the Commission</u>

Following due consideration of the foregoing arguments of the parties, the Commission adopts a deaveraging methodology based on the wire center methodology as opposed to the rate center method. The Commission concludes that this method more closely meets the requirements of Rule 507(f) to use "cost related zones" as well as the underlying principals of the 96 Act. Therefore, zone 1 will reflect the average wire center costs for loops up to 100% of the state-wide-average, zone 2 rates will reflect the average of above 100% to 150% of the

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[181] Tr. p. 2851-2852 (*Darnell*).
[182] Tr. p. 2852 (*Darnell*).
[183] Tr. p. 122-124 (*Ruscilli*).

state-wide-average, and zone 3 will be the average of wire center costs above 150% of the state wide average. In our April 28, 2000 decision in Docket No. 25980, the Commission found that the wire center methodology was more consistent with the forward-looking economic cost principals underlying the FCC's pricing rules 51.501 – 51.515. We reaffirm that general notion in this proceeding.[184]

The parties generally agree that only the recurring cost of unbundled loops and local channels below the DS3 level (including sub-loops and combinations involving these elements) should be geographically deaveraged. As BellSouth witness Caldwell explained, these are the only UNEs that possess attributes reflecting geographic cost differences and that do not have price structures which already account for geographic cost differences.[185] The Commission generally concurs with that conclusion.

IT IS SO ORDERED BY THE COMMISSION.

VIII. Line Splitting and Line Sharing

A. Overview

Because voice and data communications travel over separate frequency bands of a loop, it is possible for two different providers to provide a customer with voice and data service.[186] This is accomplished via the use of a piece of equipment known as a splitter, which separates the high frequency digital data signals from the low frequency analog voice signals.[187] Line sharing refers to the situation where a CLEC provides xDSL service to a customer using the same loop the ILEC uses to provide voice service to that customer.[188] Line splitting occurs when one CLEC provides voice service to an end user over the same loop used by another CLEC to provide a data/xDSL service.[189]

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[184] Attachment C to this Order identifies each BellSouth wire center and the respective zones.
[185] Tr. p. 1913-1916 (*Caldwell*).
[186] Tr. p. 631-632 (*Williams*).
[187] Tr. p. 606 (*Williams*).
[188] *Id.*
[189] Tr. p. 610-611 (*Williams*).

B. <u>The Positions of the Parties with Regard to Splitters in Line Splitting Arrangements and the Provision of Line Splitting via UNE-P Arrangements</u>

UNE-P represents the direct connection of a loop and a port such that a CLEC can provide voice service to an end user customer without collocating facilities in a central office or purchasing additional UNEs.[190] BellSouth contends that the central office architecture of a UNE-P arrangement is identical to that of BellSouth's own retail voice service.[191]

One of the primary issues in this proceeding concerning line splitting centers around situations where a CLEC providing voice service over a UNE-P arrangement wants to permit another CLEC to utilize the high frequency portion of that loop to provide a data service. Although technically possible, BellSouth points out that the loop and the port must be disconnected so that the loop can be terminated to a collocated splitter.[192] BellSouth contends that when a splitter is inserted, UNE-P no longer exists because central office cabling and cross connections are required. [193]

BellSouth thus maintains that contrary to the contentions of WorldCom's witness, Mr. Darnell, BellSouth should not be required to provide line splitting in the situation where a data LEC wants to provide data service over the same loop being used by a CLEC in a UNE-P arrangement to provide voice service.[194] BellSouth in fact represents that the FCC has expressly recognized the fact that UNE-P cannot be provisioned in a line splitting arrangement in its *Texas 271 Order*, wherein the FCC stated that, "if a competing carrier is providing voice service using the UNE-P, it can order an unbundled xDSL-capable loop terminated to a collocated splitter and DSLAM equipment and unbundled switching combined with shared

[190] Tr. p. 632 (*Williams*).
[191] Tr. p. 612 (*Williams*).
[192] Tr. p. 612-614 (*Williams*).
[193] Tr. p. 638 (*Williams*).
[194] Tr. p. 2836-2841 (*Darnell*).

transport, *to replace its existing UNE-platform arrangement* with a configuration that allows provisioning of both data and voice services."[195] (emphasis added).

According to BellSouth, a UNE-P CLEC can order unbundled loops terminated by collocation cross connections to a collocated splitter and Digital Subscriber Line Access Multiplexer (DSLAM) equipment and unbundled switching via a second cross connection, combined with shared transport, to replace its existing UNE-P arrangement with a UNE arrangement. This arrangement would furnish a UNE loop, a UNE port, and two collocation cross connections to provide the CLEC's end-user with voice service. The high frequency portion of the loop would be available for data because of the CLEC-provided splitter.

BellSouth disputes WorldCom's claim that the voice CLEC will be required to collocate in order to obtain line splitting in the scenario discussed immediately above. BellSouth represents that data LECs have generally already obtained collocation in such instances. BellSouth notes that if the splitter is maintained by the data LEC in its collocation space, the CLEC providing the voice service is not required to collocate any equipment due to the conversion from UNE-P to line splitting.

Although it is not obligated to do so, BellSouth represents that it will purchase, install and maintain a stand-alone splitter to be used by a CLEC in a line sharing arrangement. BellSouth deploys line splitters for line sharing as a full shelf of 96 splitters or a partial shelf of 24 splitters. Additionally BellSouth is beginning to develop an 8 port splitter option for CLECs according to Mr. Williams of BellSouth.[196]

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[195] BellSouth Post Hearing Brief pp. 46-47 [*Citing In the Matter of Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc., d/b/a Southwestern Bell Long Distance to provide In-Region InterLATA Services in Texas*, CC Docket No. 00-65 (June 30, 2000), &325 (the "*Texas 271 Order*")].

[196] Tr. p. 639 (*Williams*).

BellSouth emphasizes that it will not, and is not obligated to, provision a stand-alone splitter to CLECs to use in line splitting arrangements.[197] According to BellSouth, the FCC has determined that CLECs should provide their own splitter in line splitting arrangements.[198] Although BellSouth is not obligated by any law or order to provide the splitter in *any* line splitting arrangements, BellSouth notes that it has agreed to continue provisioning the splitter in situations where a line sharing arrangement converts to a line splitting arrangement because BellSouth loses the voice service to a CLEC, without interrupting the customer's data service, if the two CLECs in question have entered into an agreement to share the loop.[199]

WorldCom notes that even though BellSouth has agreed to continue provisioning the splitter in situations where a line sharing arrangement converts to a line splitting arrangement because BellSouth loses the voice service to a CLEC, BellSouth refuses to provide UNE-P to the CLEC winning the voice service and in fact requires such CLECs to purchase in discreet pieces, the loop, port, and cross connects even though they have previously been connected with a splitter and made available.[200] WorldCom asserts that BellSouth's policy in this regard is discriminatory and renders the provision of service more expensive because the necessary elements leased in their discreet parts are more costly than an existing combined arrangement.[201] WorldCom contends that there is no technical reason that an ILEC cannot leave in place, or for that matter install, a splitter to allow a provider of voice service via UNE-P to share a spectrum with another CLEC to provide advanced services.[202]

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[197] Tr. p. 635 (*Williams*).
[198] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* Order on Reconsideration, CC Docket No. 98-147 and CC Docket No. 96-98, Rel. Jan. 19, 2001, ("*Line Sharing Reconsideration Order*") &19.
[199] Tr. p. 635 (*Williams*).
[200] Tr. p. 714-715 (*Williams*).
[201] Tr. p. 272-273 (*Ruscilli*).
[202] Tr. p. 2844-2846 (*Darnell*) [*Citing Petition of Southwestern Bell Telephone Company for Arbitration with AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications, Inc. Pursuant to §252(b)(1) of the Federal Communications Act of 1996*, Docket No. 22315, Texas Public Utilities Commission, at 18].

WorldCom also asserts that in situations where CLECs acquire voice customers who have not previously been receiving data services, CLECs can purchase UNE-P. However, if that customer desires to obtain data services over the shared line, BellSouth will no longer provide the UNE-P and will not provide a splitter to WorldCom.[203] Notwithstanding that the UNE-P is technically identical to BellSouth's own voice service and that BellSouth currently provides voice service while the DLEC provides broadband services over the shared line, BellSouth requires the existing UNE-P arrangement to be "replaced" with the unbundled loop, unbundled port, and cross connects.[204] WorldCom points out that this new arrangement will require a new service order which creates the existence of the possibility of the customer's service being disconnected upon the placement of the new order.[205]

WorldCom asserts that the above discussed scenario would necessitate a collocation arrangement for the splitter plus the provisioning of the loop, the port, and other facility in discreet pieces rather than in combination.[206] Alternatively, the voice CLEC, as well as the DLEC, would be forced to abandon the UNE-P or the split line since the economies of serving the end user would be dramatically altered.[207]

WorldCom contends that ILECs are required to provision UNE-P in a manner that permits UNE-P line splitting between a CLEC voice provider and a data CLEC (or "DLEC"). WorldCom represents that when a CLEC obtains a loop via UNE-P, it acquires rights to the entire loop, including the portions of the loop used to provide voice service and the portions capable of providing advanced services.[208]

WorldCom points out that 47 U.S.C. §153(29) defines "network element" to include the "features, functions, and capabilities that are provided by means of such facility or equipment",

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[203] Tr. p. 273-274 (*Ruscilli*).
[204] Tr. p. 697 (*Williams*).
[205] Tr. p. 1628-1629 (*Pate*).
[206] Tr. p. 712-713 (*Shell*).
[207] Tr. p. 2837-2838 (*Darnell*).

which would include a splitter. WorldCom contends that adding a splitter at or near the main distribution frame to the loop and permitting its use on a line at a time basis is analogous and relevant technical respects to adding or removing loop electronics such as bridged taps, load coils, or conditioners because the splitter is necessary to make the loop's capability to provide high frequency spectrum available.[209] WorldCom contends that since the high frequency spectrum is one of the capabilities of a loop, the attached electronics necessary to fully access the loop's features, functions, and capabilities in order to provide service include a splitter.[210]

WorldCom contends that the Commission should go beyond the minimum requirements established by the FCC with regard to the implementation of line sharing in its *UNE Remand Order* and require BellSouth to provide line splitting in a UNE-P environment. WorldCom contends that such a policy would level the playing field between CLECs and ILECs and promote mass local market entry by CLECs.[211]

C. The Positions of the Parties with Respect to the Location of the Splitter in Line Sharing Arrangements

An additional issue raised by Covad's witness, Mr. Zulevic, concerns the placement of the splitter within the central office in a line sharing arrangement. BellSouth notes that it has agreed to purchase, install and maintain a stand-alone splitter to be used by CLECs in line sharing arrangements. BellSouth, however, disputes Mr. Zulevic's claim that the splitter should be mounted directly to the main distributing frame ("MDF"). BellSouth instead contends that the splitter should be mounted either in a common area close to the collocation area or in the BellSouth lineup. BellSouth represents that the least costly alternative for all parties involved and the most efficient use of central office space dictates that the splitter be located in a separate relay rack. According to BellSouth, mounting the splitter directly to the MDF will cause

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[208] Tr. p. 2839-2842 (*Darnell*).
[209] Tr. p. 2843-2844 (*Darnell*).
[210] ITC DeltaCom/WorldCom Post Hearing Brief at p. 59.
[211] ITC DeltaCom/WorldCom Post Hearing Brief at p. 60 [*Citing* Darnell rebuttal at p. 46].

premature exhaustion of the MDF, requiring additional expense to be incurred that far exceeds any cost savings realized from mounting the splitter on the MDF. [212]

BellSouth contends that its above position is further supported by the FCC's *Line Sharing Order* where the FCC stated: "The splitter will likely be installed *between* the MDF and the other central office equipment."[213] BellSouth thus asserts that the FCC did not envision frame-mounted splitters. BellSouth further notes that the North Carolina Commission concluded recently that BellSouth is not required to place splitters on the MDF.[214]

Mr. Zulevic of Covad maintains that the Commission should require that BellSouth place splitters on the MDF at the request of the CLECs. He contends that such an approach not only reflects an efficient and cost minimizing configuration, but harmonizes with the FCC's pricing policies as well.[215]

Mr. Zulevic explains that when BellSouth provisions a splitter, locating a splitter at or near the ILEC's MDF is both feasible and the most efficient configuration because it avoids long cable runs thereby minimizing the expenses associated with the cable including the labor to place such cable. Mr. Zulevic contends that inefficient configurations like those proposed by BellSouth heighten the risk of service failures attendant with the use of excessive tie cables and cross connects and increase the length of cable that carries the DSL signal from a customer's premise to a CLEC's DSLAM. Since DSL is a distance sensitive technology, Mr. Zulevic maintains that BellSouth's inefficient configurations that limit the ability of CLECs to offer xDSL service to some customers served by particular central offices or may reduce the quality of the

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[212] Tr. p. 622-623 (*Williams*).
[213] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provision of the Telecommunications Act of 1996,* Third Report and Order in CC Docket No. 98-147; Fourth Report and Order in CC Docket No. 96-98, Rel. Dec. 9, 1999, ("*Line Sharing Order*") &113 (emphasis added).
[214] *N.C. Recommended UNE Order*, at 155.
[215] Tr. p. 2340-2342 (*Zulevic*).

service provided. Mr. Zulevic consequently maintains that BellSouth must not be permitted to impose its inefficient configurations on CLECs. [216]

D. The Positions of the Parties with Respect to the Appropriate Means for CLECs to Access the Loop in Line Sharing Arrangements

Another issue raised by Covad witness Michael Zulevic regarding line sharing concerns test access. According to Mr. Zulevic, the FCC stated in its *Line Sharing Order* that "both the incumbent and competitive LEC's must have access to the shared loop facility for testing, maintenance, and repair activities."[217] Mr. Zulevic notes that the FCC further stated:

> [W]e require that incumbent LECs must provide requesting carriers with access to the loop facility for testing, maintenance, and repair activities. We require that, at a minimum, incumbents must provide requesting carriers with loop access either through a cross-connection at the competitor's collocation space, or through a standardized interface designed to provide physical access for testing purposes.[218]

Michael Zulevic asserts that CLECs must have access to the loop at all cross-connect points of the splitter at the Main Distribution Frame or the Intermediate Distribution Frame for purposes of attaching test equipment to test their data services. He states that this level of access is necessary so that CLECs can isolate troubles on the loop to identify what elements of the DSL or voice network, if any need repair.[219]

Mr. Williams, testifying for BellSouth, responds that the bantam-type test jack provides CLECs with the direct access to the loop which the CLECs need to test for line sharing. He adds that the bantam jack allows the CLEC to test the entire loop from the splitter to the NID.

Mr. Williams explains that the bantam test jack is located in the same rack as the splitter and accepts a test cord. When the test cord is inserted, the voice and data signals and associated central office wiring are isolated from the outside plant copper loop. According to

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[216] *Id.*
[217] *Line Sharing Order*, &113.
[218] *Id.* at &118.
[219] Tr. p. 2368-2369 (*Zulevic*).

Williams, this leaves the loop ready for unobstructed wideband testing by the CLEC with no central office battery or DC blocking capacitors to interfere with the test results.

Mr. Williams further asserts that BellSouth provides CLECs with access to Data Local Exchange Carrier ("DLEC") TAFI (Trouble Analysis Facilitation Interface) which allows the CLEC to report troubles, check the status of trouble reports and perform mechanized loop tests. If these testing methods are not adequate, Mr. Williams maintains that the CLEC can choose their own splitter.[220] According to Mr. Williams this would allow the CLEC to view the circuit from the loop side of the splitter.

BellSouth thus concludes that it provides CLECs with test access that meets the FCC's requirements through a bantam jack. The bantam jack is located in the same rack as the splitter and allows CLECs to test the entire loop, from the splitter to the NID.[221] According to BellSouth, the provision of the bantam test jack satisfies the FCC's access requirement.

E. <u>The Findings and Conclusions of the Commission</u>

With respect to the provision of splitters in Line Splitting Arrangements and the provision of line splitting in a UNE-P arrangement, we note that BellSouth submitted a revised Statement of Generally Available Terms and Conditions (SGAT) on November 16, 2001. Said SGAT was approved by Commission Order entered on May 30, 2002, in Docket 25835.[222] Said SGAT contains provisions indicating that end users currently receiving voice service from a CLEC through a UNE platform may be converted to line splitting arrangements by CLECs ordering line splitting service. The SGAT further indicates that in such circumstances, a splitter over which BellSouth will maintain control will be provided. In situations where customers are converting from existing high frequency spectrum CO based BellSouth-owned splitter line sharing service

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[220] Tr. p. 628-629 (*Williams*).
[221] Tr. p. 629 (*Williams*).
[222] *In Re: Petition for Approval of a Statement of Generally Available Terms and Conditions Pursuant to §252(f) of the Telecommunications Act of 1996 and Notification of Intention to File a Petition for In-Region InterLATA Authority with the FCC Pursuant to §271 of the Telecommunications Act of 1996*, Notice of Decision, (May 30, 2002).

to line splitting, the SGAT indicates that BellSouth will discontinue billing for the upper spectrum and will continue to bill the data CLEC for all associated splitter charges. In situations where a line sharing arrangement or UNE-P arrangement does not already exist, BellSouth's approved SGAT indicates that BellSouth will work cooperatively with CLECs to develop methods and procedures to develop a process whereby a voice CLEC and a data CLEC may provide services over the same loop. Under such processes, the SGAT indicates that BellSouth will deliver a loop and a port to the collocation space of either the voice CLEC or the data CLEC and will provide a splitter upon request of the CLEC. The approved SGAT indicates, however, that the loop and port cannot be a loop and port combination, but must be individual standalone network elements.[223]

It is apparent that the revised SGAT submitted by BellSouth will help alleviate some of the issues raised concerning line sharing and line splitting. It is also apparent, however, that there are a number of unresolved issues remaining with regard to line splitting and line sharing. As such we shall defer these issues to a further proceeding in which we will assess the reasonableness of requiring BellSouth to provide additional unbundled network elements and arrangements which go beyond the current FCC requirements. At that time, we shall address all outstanding issues regarding line splitting and line sharing, including the reasonableness of requiring BellSouth to provide line sharing using digital loop carrier, voice and data service using digital loop carrier, loop service using GR-303 DS-1 service level as well as DS0 level and the appropriateness of a recurring change for the use of the high frequency portion of the loop.

We initially note that the provision of line sharing via the digital loop carrier unbundled network element will allow competitive LECs to purchase and use the high frequency portion of the loop where the loop connection contains a copper distribution cable, a connection through a digital loop carrier and a fiber feeder cable. Voice and data service using the digital loop carrier

[223] BellSouth's revised SGAT filed on November 16, 2001 and approved by the Commission's May 30, 2002 Notice of

uses the same network design as line sharing using a digital loop carrier. In this situation, the CLEC can provide both voice and data service or can split the line with another CLEC.[224] We further note that loop service using GR-303 DS1 interconnection refers to the hand-off of voice grade service from BellSouth to the CLECs. Currently, BellSouth will only hand-off one voice grade line at a time. We will assess the merits of requiring BellSouth to hand-off up to 24 voice grade lines simultaneously using DS1.

We acknowledge that the DC Circuit of Appeals has recently remanded the *Line Sharing Order* back to the FCC for further proceedings.[225] At this time, we cannot predict how the FCC will address the matters remanded by the D.C. Circuit. We will, however, request the parties to address the issue of whether CLECs are inappropriately impaired from providing services via line sharing and/or line splitting in the various geographic regions of the State of Alabama absent action by this Commission requiring BellSouth to provide the UNEs discussed above.

We believe that it is imperative that the Commission address the foregoing issues given the rapidly changing technology in the market. We must assure that access to new technologies is available to CLECs and for that reason will open further proceedings as discussed herein to address the sufficiency of the access provided to CLECs by BellSouth to line sharing and line splitting using the various technologies discussed herein.

With respect to the location of the splitter in line sharing arrangements, we believe that the most efficient and most cost effective configuration should be deployed in placing splitters. Although we recognize that inefficient configurations can degrade xDSL service, we also recognize that CLEC demands upon BellSouth's current configuration and equipment can cause premature exhaustion of the capacities of that equipment. Therefore, to the extent

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Decision in Docket 25835. *See* Section II(A)(9)(b).

[224] These elements are the same as the broadband offerings SBC agreed to provide when the FCC granted its request to modify certain conditions contained in the SBC/Ameritech Merger Order, *In the Matter of Ameritech Corp*., and *SBC Communications, Inc*., CC Docket No. 98-141, FCC 00-336, (released September 8, 2000).

[225] *United States Telecom Association*, et. al, v. *Federal Communications Commission*, __F.3d__ (D.C. Cir., May 24, 2002).

technically feasible, we herein require BellSouth to locate splitters as close to the Main Distribution Frame as possible.

IT IS SO ORDERED BY THE COMMISSION.

IX. Miscellaneous Issues

A. UNE Combinations

1. Overview

The FCC, in its *First Report and Order,* promulgated a number of regulations implementing the various requirements of the 96 Act. In particular, the FCC implemented a set of rules governing the combination of network elements at 47 CFR 51.315(b)-(f). The FCC's Rule 51.315(b), which is also referred to as the "all elements rule", specifies that an ILEC shall not separate requested network elements that the incumbent LEC "currently combines." The FCC's Rule 51.315(c) states that "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..." Rules 51.315(d) – (f) are concerned with the implementation of Rule 51.315(c), or with combinations performed by the incumbent LEC using elements possessed by CLECs.

A number of the FCC's implementing regulations were challenged before the Eighth Circuit Court of Appeals in *Iowa Utilities Board I*, including Rules 51.315(b) – (f). The Eighth Circuit eventually invalidated Rules 51.315(b) – (f) reasoning that the FCC went beyond the requirements of the 96 Act in implementing said rules. The Eighth Circuit conceded that the language of §251(c)(3) of the Act indicates that "a requesting carrier may achieve the capability to provide telecommunications service completely through access to the unbundled elements of an incumbent LEC's network."[226] Rule 51.315(b) was apparently vacated, however, because the court interpreted Congress' use of the word "unbundled" in §251(c)(3) of the 96 Act to mean "physically separated" rather than "bundled" as required by Rule 51.315(b). The Eighth Circuit

reasoned that allowing requesting carriers to lease the incumbents entire, preassembled network at cost-based rates would render the resale provisions of the 96 Act a dead letter.

As noted previously, a number of the conclusions reached by the Eighth Circuit in *Iowa Utilities Board I* were subsequently appealed to the United States Supreme Court, including the Eighth Circuit's decision to invalidate the FCC's Rule 51.315(b). Importantly, the Eighth Circuit's invalidation of Rules 51.315(c) – (f) was not an issue before the U.S. Supreme Court at that time. The Supreme Court reversed the Eighth Circuit in *AT&T Corp*. and ordered the reinstatement of Rule 51.315(b). The Supreme Court specifically rejected the Eighth Circuit's reasoning that allowing requesting carriers to lease an incumbent's entire preassembled network at cost based rates would render the resale provisions of the 96 Act a dead letter. The Supreme Court also noted that the 96 Act does not require a CLEC to own any facilities in conjunction with UNEs leased from an ILEC.

The Supreme Court further concluded in *AT&T Corp*. that certain issues concerning the unbundling obligations of §251 of the Act should be remanded to the FCC for further evaluation. In the *UNE Remand Order*, which resulted from the Supreme Court's decision in *AT&T Corp.*, the FCC declined to revisit the "currently combines" requirement of Rule 51.315(b) or the status of its vacated Rules 51.315(c) –(f) because of the pending proceedings on remand before the Eighth Circuit.[227] The FCC did restate in its *UNE Remand Order*, however, that its conclusion in the *First Report and Order* that the "proper reading of 'currently combines' in Rule 51.315(b) means 'ordinarily combined within [the incumbent's] network, in the manner which they are typically combined.'"[228] Even though it did not go so far as to address the reinstatement of Rules 51.315(c) – (f), the FCC noted in its *UNE Remand Order* that "the reasoning of the Eighth

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[226] *Citing Iowa Utilities Board I* at p. 814.

[227] *In Re: Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order and Fourth Further Notice of Proposed Rulemaking,* 15 FCC Rcd. 3696, &479 (1999) ("*UNE Remand Order*").

[228] *Id.* [*Citing First Report and Order*, &296].

Circuit in invalidating Rules 51.315(c) – (f) was called into question by the Supreme Court's decision [in *AT&T Corp*.] and that §251(c)(3) provides a sound basis for reinstating Rules 51.315(c) – (f)."[229]

After concluding its proceedings on remand, the Eighth Circuit issued its *Order on Remand* on July 18, 2000.[230] The Eighth Circuit rejected therein the argument that the Supreme Court's reasoning in reinstating Rule 51.315(b) dictated that Rules 51.315(c) – (f) be reinstated as well. The court held that Congress, in the second sentence of §251(c)(3) of the 96 Act, had clearly specified that it is requesting carriers who must combine previously uncombined elements. The United States Supreme Court granted certiorari on the question of whether §251(c)(3) of the 96 Act prohibits regulators from requiring that incumbent local telephone companies combine certain previously uncombined elements when a new entrant requests the combination and agrees to compensate the incumbent for performing that task.[231]

2. <u>The Positions of the Parties</u>

The CLEC intervenors argue that Rule 51.315(b), by its own terms, applies to elements that the incumbent "currently combines," not merely those elements that are "currently combined." In particular, ITC DeltaCom and WorldCom maintain that according to the rulings of the FCC, CLECs can purchase UNEs in combination, such as a loop and a port, even when the network elements supporting the underlying service are not physically connected at the time the service is ordered because such UNEs are "typically combined" in the ILECs network.[232]

ITC DeltaCom and WorldCom moreover assert that a ruling requiring ILECs to combine currently unconnected network elements that are ordinarily combined is consistent with the intent of the 96 Act to hasten competitive entry through a number of service delivery methods,

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[229] *Id.* at &&481-482.
[230] *Iowa Utilities Board v. FCC*, 219 F.3d 744 (8th Cir. 2000) ("*Iowa Utilities Board II*").
[231] *Iowa Utilities Board v. FCC*, 219 F.3d 744 (8th Cir. 2000) *cert. granted in part,* 121 S. Ct. 877, 148 L. Ed. 2d 788 (2001).
[232] ITC DeltaCom WorldCom Post Hearing Brief at p. 48 [*Citing UNE Remand Order*, &&480, 486].

including the use of leased network elements. They also assert that such an approach is consistent with the U.S. Supreme Court's ruling in *AT&T Corp.* rejecting the view that §251(c)(3) of the Act only allows the leasing of "discrete pieces" of network elements. ITC DeltaCom and WorldCom thus assert that a Commission ruling directing ILECs to, upon request, combine elements that are ordinarily combined by the incumbent in its network would be reasonable and pro competitive, as well as required by Rule 51.315(b). They maintain that if the Commission were to continue to limit the definition of "currently combines" to the more restrictive "currently combined" interpretation of BellSouth, the process of obtaining elements would be more cumbersome and would serve no purpose except to complicate the ordering process and impede competition.[233]

ITC DeltaCom and WorldCom also note that the Georgia Public Service Commission has ruled that CLECs can order UNE combinations even if the particular elements being ordered are not actually physically connected at the time the order is placed. [234] They maintain that the Georgia Commission found that "currently combines" means "ordinarily combined" in the BellSouth network and that CLECs may order combinations of ordinarily combined elements, even if particular elements ordered are not actually physically connected. ITC DeltaCom and WorldCom also assert that the Tennessee regulatory authority has reached a very similar conclusion.[235]

ITC DeltaCom and WorldCom maintain that BellSouth's insistence on limiting the availability of the UNE platform (UNE-P) to those instances in which facilities are actually combined, will result in discrimination in terms of price and choice between BellSouth's existing

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[233] *Id.* at p. 49.

[234] *In Re: Generic Proceeding to Establish Long Term Pricing Policies for Unbundled Network Elements*, Docket No. 10692-U, the Georgia Public Service Commission (February 1, 2000).

[235] *In Re: Petition of BellSouth Telecommunications, Inc. to Convene a Contested Case to Establish "Permanent Prices" for Interconnection and Unbundled Network Elements*, Docket No. 97-01262, (Tennessee Public Service Commission) (November 22, 2000); Second Interim Order Re: Revised Cost Studies and Geographic Deaveraging, fn 17 ("BellSouth must provide the combination throughout its network as long as it provides the same combination to itself anywhere in its network").

customers and new customers or existing BellSouth customers wanting new features, a second line, or service in a different location.[236] They in fact assert that existing customers of BellSouth would be entitled to change service to a CLEC utilizing the UNE-P, but the neighbor next door who may have moved into a house for which BellSouth disconnected dial tone would not be able to make such a choice. ITC DeltaCom and WorldCom argue that if a CLEC wants to serve the neighbor who moves into the house where BellSouth disconnected dial tone, the CLEC must first order the service via resale, or possibly order the combination at unregulated market rates, and then convert to cost based combination rates at some later point in time.[237] ITC DeltaCom and WorldCom assert that BellSouth's procedures in this regard require unnecessary processing costs and also give rise to the possibility of increased ordering errors which directly impact the quality of service received by Alabama customers.[238]

ITC DeltaCom and WorldCom further assert that even if the Commission decides that the FCC's "currently combines" language in Rule 51.315(b) does not clearly encompass services for new and existing customers, the Commission must look to existing state law and existing Commission rules and regulations to rectify what they allege is a discriminatory result of BellSouth's narrow interpretation of "currently combines". ITC DeltaCom and WorldCom argue that a wholesale adoption of BellSouth's argument concerning this issue would permit BellSouth to create an absurd dichotomy between end users thereby impairing the ability of CLECs to provide local service to many Alabama consumers.[239]

BellSouth, on the other hand, steadfastly maintains that it is not required by the 96 Act to combine elements that are not already combined in its network. In further support of its position, BellSouth cites the Order entered by the Commission on May 21, 2001, in the arbitration between Intermedia and BellSouth wherein the Commission concluded that "currently

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[236] ITC DeltaCom/WorldCom Post Hearing Brief at p. 51.
[237] *Id.* [*Citing Deposition of Ruscilli* at 32-33].
[238] *Id*. at p. 52.

combines" under Rule 51.315(b) should be interpreted to mean that BellSouth need only provide UNE combinations in situations where the UNEs in question are already combined in the BellSouth network.[240]

3. The Findings and Conclusions of the Commission

BellSouth is correct in noting that the Commission has, in past decisions, interpreted the words "currently combines" in Rule 51.315(b) to mean that BellSouth is required to provide combinations of unbundled network elements only in situations where the UNEs requested are already physically combined in the BellSouth network and are being utilized to serve the particular customer at the particular location requested by the CLEC.[241] Given the current competitive environment, however, we are of the opinion that the time has come to modify our previous approach and require BellSouth to provide combinations of UNEs not only in situations where they are currently physically combined, but also in situations where the elements requested are ordinarily and typically combined in the BellSouth network.

The decision to depart from our past interpretation of "currently combines" is driven by a number of factors, not the least of which is the increased potential for de facto discriminatory treatment between similarly situated customers. More particularly, we do not find it appropriate for one customer that has current service with BellSouth to have available more favorable competitive options than a similarly situated customer that may be seeking new service or who seeks to switch carriers and wants features that require new elements. Our present policy of construing the words "currently combines" to mean that BellSouth need only provide, on a

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[239] *Id.* at p. 52.

[240] *In the Matter of Petition For Arbitration of Interconnection Agreement Between BellSouth Telecommunications, Inc. and Intermedia Communications, Inc. Pursuant to §252(b) of the Telecommunications Act of 1996,* Docket 27385, Alabama Public Service Commission (May 21, 2001) ("*Intermedia/BellSouth Arbitration Order*").

[241] *Intermedia/BellSouth Arbitration Order* at p. 26; *See also In the Matter of Petition By ITC DeltaCom Communications, Inc. For Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to §252(b) of the Telecommunications Act of 1996*, Final Order on Arbitration, Docket 27091, Alabama Public Service Commission, p. 16 (September 27, 2000); and *In the Matter of Petition by ICG Telecom Group, Inc. For Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to §252(b) of the Telecommunications Act of 1996*, Docket 27069, Final Order on Arbitration, p. 33 Alabama Public Service

combined basis, those UNEs that are actually physically connected increases the potential for such disparate treatment between similarly situated customers.

Our revised construction of the "currently combines" language in Rule 51.315(b) is also driven by the real-world experience of the CLECs who can obtain combined UNEs if they first order the services provided by such combinations through BellSouth's special access or resale tariffs. Although the CLECs are later allowed to convert those services to UNE combinations, it appears to the Commission that the interim step of requiring such UNE combinations to be ordered out of special access and/or resale tariffs creates unnecessary costs and administrative burdens for the CLECs which have a chilling effect on the development of competition in this state.

In conclusion, the Commission is of the opinion that the procompetitive goals of the 96 Act will be best promoted by interpreting the "currently combines" language of Rule 51.315(b) to mean that BellSouth must provide combinations of UNEs that it ordinarily and typically combines in the normal course of operating its network, even if the particular elements being ordered are not physically connected at the time the order is placed. The recurring rates for such new combinations shall be the same as the sum of the recurring rates for the elements forming an existing combination. The nonrecurring rate for a new loop/port combination shall be the sum of the recurring rate for the loop and the nonrecurring rate for the port. The nonrecurring rate for a new loop/transport combination shall be the sum of the nonrecurring rate for the loop and the nonrecurring rate for transport. To the extent that the Commission has not established nonrecurring rates for a particular new combination, the nonrecurring rate shall be the sum of the nonrecurring rates for the individual elements being offered.

Commission (November 10, 1999).

We adopt the aforementioned UNE combination policy with full knowledge of the Supreme Court of the United States' recent decision concerning Iowa Utilities Board II.[242] In said decision, the Supreme Court discussed the status of the FCC's Rules 51.315(c)-(f) and ultimately concluded that the implementation of said rules were an appropriate exercise of the FCC's statutory authority. The Supreme Court thus concluded that the Eighth Circuit erred in invalidating the aforementioned rules and accordingly reversed and remanded the issue to the FCC for further proceedings consistent with the Court's findings.

Our review of the Supreme Court's decision in *Verizon Communications* leads us to conclude that nothing in said decision requires us to revisit our policy concerning UNE combinations established herein. Although the Supreme Court made numerous references in its opinion to the inability of requesting carriers to combine elements as impacting the incumbents ILEC's obligation to perform the combination of elements, it appears to us that those discussions by the Supreme Court were primarily aimed at scenarios where new entrants request the incumbent to perform combinations of elements that are not ordinarily combined in the incumbent's network. In particular, the Supreme Court noted that it is not the aspects of Rule 315(c) "requiring the combination of what is ordinarily combined that draws the incumbent's...principle objection; they focus their attack, rather, on the additional requirement of Rule 315(c), that incumbents combine unbundled network elements 'even if those elements are not ordinarily combined in the incumbent['s] network.'"[243]

We accordingly conclude that nothing in the Supreme Court's *Verizon Communications* decision requires us to revisit the UNE combination policy established herein. Said policy relates to elements that are ordinarily and/or typically combined in the incumbent's network and thus does not appear to run afoul of any of the principles discussed by the Supreme Court. We

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[242] *Verizon Communications, Inc. v. FCC*, 535 U.S. __ (2002) ("*Verizon Communications*").
[243] See page 67 of the Supreme Court's May 13, 2002 Verizon Communications Decision.

will naturally follow the FCC's proceedings on remand with great interest and promptly implement any modifications to our UNE combination policy required thereby.

IT IS SO ORDERED BY THE COMMISSION.

B. Access to BellSouth's Sub-Loop Elements

1. The Positions of the Parties

BellSouth contends that CLEC access to subloop elements should be provided via an Access Terminal because the use of such a terminal reasonably balances the CLECs' need for access to sub-loop elements with the need to protect network reliability. BellSouth notes that it will construct an Access Terminal between its network and the CLEC's ''networks and will pre-wire all network terminating wire ("NTW") pairs to said Access Terminal.[244]

The CLEC intervenors generally object to the use of an Access Terminal for accessing sub-loop elements, insisting that they should have direct access to these elements instead.[245] BellSouth, however, contends that such direct access is not technically feasible for a number of reasons, but primarily because such access would compromise network reliability and security.[246]

BellSouth first contends that if given direct access, CLEC technicians could, intentionally or unintentionally, disrupt the service provided by BellSouth to both BellSouth and CLEC end user customers. BellSouth maintains that the disturbances of working circuits can cause irreparable harm to existing services and subject BellSouth and this Commission to numerous customer complaints.[247]

BellSouth also contends that direct access to sub-loop elements would place BellSouth at the CLECs' mercy to tell BellSouth how, when, where, and the amount of BellSouth's facilities that are being used. BellSouth contends that such a scenario would have a totally debilitating

[244] Tr. p. 1304-1307 (*Milner*).
[245] Tr. p. 1741-1742 (*Starkey*).
[246] BellSouth Post Hearing Brief p. 52.

effect on BellSouth's ability to maintain accurate cable inventory records and would result in the imminent failure of BellSouth's (and CLECs using sub-loop elements acquired from BellSouth) service provisioning, and maintenance and repair processes.[248]

BellSouth further notes that although the FCC required that incumbents provide a "single point of interconnection" ("SPOI") at multi-unit premises that is suitable for use by multiple telecommunications carriers, nothing in the FCC's requirements in this regard mandate the direct access sought by the CLECs.[249] According to BellSouth, the FCC plainly required that the ILECs "construct" SPOIs to permit access to sub-loop elements, which necessarily means that the SPOIs required by the FCC do not presently exist.[250]

BellSouth furthermore argues that the FCC did not alter its requirement that each carrier "retain responsibility for the management, control, and performance of its own network."[251] If direct access to sub-loop elements as proposed by the CLECs is permitted, BellSouth contends that it would be rendered incapable of managing and controlling its network in the provision of service to end user customers.

BellSouth further urges the Commission to reject Covad's proposal that BellSouth bear the cost of constructing the Access Terminal. BellSouth asserts that contrary to Mr. Starkey's claims, the CLECs' request for access to these sub-loop elements *causes* the need for the access terminals and, thus, CLECs should be required to pay the reasonable costs for their access.[252] BellSouth points out that the only reason Access Terminal's are necessary is to prevent intentional or unintentional service disruptions caused by CLEC technicians and to ensure accurate record keeping and billing as a result of CLEC access to sub-loop elements. Since BellSouth would have no reason to construct access terminals if not for the CLECs'

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[247] Tr. pp. 1306-1307; 1336-1337 (*Milner*).
[248] Tr. p. 1337 (*Milner*).
[249] *Third Report and Order*, &226.
[250] *Id.*
[251] *First Report and Order* &203.

desire to gain access to BellSouth's sub-loop facilities, BellSouth contends that CLECs should be required to bear the cost for the construction of access terminals.

2. The Findings and Conclusions of the Commission

Upon review of the record and the applicable requirements established by the FCC, we conclude that the Access Terminal Subloop access proposed by BellSouth is the most reasonable approach. We find that the direct access requested by the CLECs is not necessitated by the prevailing regulatory requirements and would in fact place the BellSouth network at risk for unnecessary disruptions of service. We further conclude that the reasonable costs associated with the construction of the access terminals proposed by BellSouth should be borne by the CLECs.

IT IS SO ORDERED BY THE COMMISSION.

C. Operator Services/Directory Assistance as a UNE

1. The Positions of the Parties

WorldCom contends through the testimony of Mr. Darnell that BellSouth is required to provide operator services and directory assistance ("OS/DA") as a UNE and urges the Commission to establish rates for OS/DA.[253] BellSouth, however, asserts that it is not required to provide OS/DA as a UNE because the FCC specifically exempted operator services and directory assistance from an ILEC's unbundling obligations if the ILEC provides customized routing.[254] BellSouth asserts that since it indeed provides CLECs with customized routing, it is not required to provide OS/DA as a UNE.[255]

BellSouth notes that other Commissions in BellSouth's region have reached the conclusion BellSouth urges this Commission to reach. For example, BellSouth points out that the North Carolina Utilities Commission concluded recently "that BellSouth should be allowed to

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[252] Tr. p. 1747-1748 (*Starkey*).
[253] Tr. p. 2857-2858 (*Darnell*).
[254] *UNE Remand Order* &441.

remove OS/DA from its UNE price list because BellSouth is currently providing customized or selective routing which would enable parties to use an alternative OS/DA provider."[256]

2. The Findings and Conclusions of the Commission

BellSouth's argument that it is not required to provide OS/DA as a UNE because it already provides customized routing to CLECs was recently confirmed by the FCC in its recent Order approving BellSouth's Joint 271 application for Georgia and Louisiana.[257]

More specifically, the FCC concluded that BellSouth indeed offers customized routing, including multiple routing options, via advanced intelligent network.[258] The FCC further concluded that BellSouth's customized routing offering may be ordered electronically.[259] Based on the foregoing findings of the FCC, we conclude that BellSouth is not required to offer OS/DA as a UNE.

IT IS SO ORDERED BY THE COMMISSION.

X. Conclusion

Having considered all of the foregoing, the UNE prices attached hereto as Appendix A are hereby adopted as of the effective date of this Order. These are the Alabama UNE prices that should be recognized in all ongoing interconnection negotiations as of the effective date of this Order. Further, any amendments required by the language of existing interconnection agreements should be based on the prices established herein as of the effective date noted below.

We have made every effort to comply with the requirements of the 96 Act and the TELRIC Principles established by the FCC in arriving at the rates established herein. We firmly

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[255] Milner, Tr. p. 1310-1311.
[256] *N.C. Recommended UNE Order, at 107.*
[257] *In the Matter of Joint Application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc. for a Provision of In-Region InterLATA Services in Georgia and Louisiana*, CC Docket No. 02-35, FCC 02-147, Memorandum, Opinion and Order, &254 (the "*Georgia/Louisiana Order"*).
[258] *Id.*
[259] *Id.* at &255.

believe that rates established are within an acceptable range of what the TELRIC methodology was designed to produce. The FCC has held on more than one occasion that it will not disturb a state's UNE pricing determinations unless "basic TELRIC principles are violated or the state Commission makes clear errors in factual findings on matters so substantial that the end result falls outside the range that the reasonable application of TELRIC principles would produce."[260] We are convinced that the rates established herein are compliant with TELRIC requirements and were arrived at after proper consideration of all of the attendant facts and circumstances in this proceeding.

We specifically note, however, that UNE rates are susceptible to constantly changing circumstances. Accordingly, we will make every attempt to expeditiously address any future requests for modifications to the rates adopted herein which are appropriately supported and properly filed with the Commission. We will also endeavor to expeditiously address all of the matters we have deferred to future proceedings in this cause.

[260] *Joint Application by SBC Communications, Inc., Southwestern Bell Telephone Company and Southwestern Bell Communication Services, Inc., d/b/a Southwestern Bell Long Distance for a Provision of In-Region InterLATA Services in Kansas and Oklahoma*, CC Docket No. 00-217, &&59-60 (2001) ("*Kansas Oklahoma Order*").

IT IS SO ORDERED BY THE COMMISSION.

IT IS FURTHER ORDERED BY THE COMMISSION, That jurisdiction in this cause is hereby retained for the issuance of any further order or orders as may appear to be just and reasonable in the premises.

IT IS FURTHER ORDERED, That this Order shall be effective as of the date hereof.

DONE at Montgomery, Alabama, this day of May, 2002.

ALABAMA PUBLIC SERVICE COMMISSION

Jim Sullivan, President

Jan Cook, Commissioner

George C. Wallace, Jr., Commissioner

ATTEST: A True Copy

Walter L. Thomas, Jr., Secretary