

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

Review of the Federal Communications)
Commission's Triennial Review Order)
Regarding Unbundling Requirements)
For Individual Network Elements)

Case No. 2003-00379

REBUTTAL TESTIMONY AND EXHIBITS OF

MARK E. ARGENBRIGHT

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTH CENTRAL STATES, LLC

MARCH 31, 2004

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Mark E. Argenbright. My business address is 1200 Peachtree St. NE,
3 Suite 8200, Atlanta, GA 30309.

4
5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by AT&T Corp. and hold the position of District Manager, Law
7 and State Government Affairs, providing support for AT&T's regulatory
8 advocacy in the nine states that make up AT&T's Southern Region.

9
10 **Q. PLEASE SUMMARIZE YOUR TELECOMMUNICATIONS
11 BACKGROUND AND EDUCATION.**

12 A. I graduated from the University of Montana in 1980 and have a Bachelor of
13 Science Degree in Business Administration. I have worked in the
14 telecommunications industry for over 17 years with 15 of those years in the area
15 of regulatory affairs. Prior to being employed by AT&T, I was employed by
16 WorldCom, Inc from 1994 to 2002 with multiple responsibilities including
17 development and coordination of various of the company's regulatory and public
18 policy initiatives for the company's domestic operations. This included acting as a
19 witness in support of such initiatives. Prior to that, I was employed by the
20 Anchorage Telephone Utility (now known as Alaska Communications Systems)
21 as a Senior Regulatory Analyst and American Network, Inc. as a Tariff Specialist.

22 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS
23 PROCEEDING?**

24
25 A. No.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. To respond to the proposal by BellSouth witness Ms. Blake regarding the
3 appropriate crossover point for use in delineating between mass market customers
4 and enterprise customers in Kentucky and to provide an alternative proposal
5 based on the general formula described by CompSouth witness Mr. Gillan.

6 **Q HOW IS YOUR TESTIMONY STRUCTURED?**

7 A. I will first address the BellSouth proposal and how it fails to consider the
8 direction given by the FCC with regard to the calculation of a crossover point. I
9 will then review the formula described by CompSouth's Mr. Gillan in his direct
10 testimony. Consistent with this formula, I will then propose a more suitable
11 crossover point. Finally, I will describe the calculation, which utilizes a model
12 introduced by Sprint in the state of Florida for the purpose of calculating the
13 crossover point, utilizing Kentucky specific inputs.

14
15 **Q. AT PAGE 8, LINES 12 THROUGH 18, BELLSOUTH WITNESS BLAKE**
16 **INDICATES THAT THE APPROPRIATE CROSSOVER POINT WITH**
17 **WHICH TO DELINEATE BETWEEN "MASS MARKET" AND**
18 **"ENTERPRISE" CUSTOMERS IS "THREE OR FEWER DSO LINES."**
19 **DO YOU AGREE?**

20
21 A. No. As explained in the direct testimony of CompSouth's Mr. Gillan, the
22 calculation of a crossover results in establishment of the upper boundary of the
23 mass market in terms of the number of voice lines a customer may have before
24 the customer should be viewed as an enterprise customer. Ms. Blake's suggestion

1 that a crossover point of three lines is appropriate fails to consider the FCC’s
2 primary direction that a crossover calculation consider the point at which it is
3 more economical for a customer to be served with a DS1 instead of multiple DS0
4 loops.

5
6 In fact Ms. Blake misquotes the FCC’s Order in this regard. Citing to ¶497 of the
7 TRO, Ms. Blake indicates that the FCC’s direction is “to define the cross-over
8 point as ‘where it makes sense for the multi-line customer to be served via a DS1
9 loop.’” The FCC’s actual direction is clear when ¶497 is cited accurately:

10
11 “This cross over point may be the point where it makes *economic* sense
12 for a multi-line customer to be served via a DS1 loop.” [emphasis added]

13
14 Failure to consider the point at which it makes more “economic sense” to serve a
15 customer with a DS1 rather than multiple DS0s does not comply with the
16 direction given by the FCC.

17
18 **Q. IN MR. GILLAN’S DIRECT TESTIMONY, BEGINNING AT PAGE 24,**
19 **LINE 11 THROUGH PAGE 25, LINE 8, HE DESCRIBES A GENERAL**
20 **FORMULA WITH WHICH AN ECONOMIC CROSSOVER POINT**
21 **COULD BE CALCULATED. PLEASE SUMMARIZE THIS FORMULA.**

22
23 **A.** CompSouth’s witness Mr. Gillan proposes, and, as a member of CompSouth,
24 AT&T supports, a “straightforward calculation” whereby the cost of a UNE DS1
25 is compared to the cost of multiple UNE analog loops in order to make a
26 determination as to when, in terms of the number of UNE analog loops, it is more

1 economical to serve a customer with a DS1. The cost of a UNE DS1 must also
2 include the customer premise equipment that is required to utilize DS1 service as
3 well as all the costs of non-recurring activities and installation of such equipment.

4

5 CompSouth's Mr. Gillan illustrates the calculation as follows:

6

7

8

9

$$\text{Crossover} = \frac{(\text{CPE} + \text{UNE DS-1})}{\text{UNE Loop}}$$

10

The costs, recurring and non-recurring, associated with acquiring the UNE DS-1
11 and UNE Loop facilities from the incumbent must be included in the calculation.

12

13

The use of such a formula will result in the determination of the number of analog
14 lines at which it is more economical to serve a customer with a DS1, which is the
15 crossover point. AT&T, as a member of CompSouth, supports CompSouth's
16 proposed approach.

17

18

**Q. DOES COMPSOUTH'S WITNESS DISCUSS OTHER FACTORS THAT
19 COULD BE APPROPRIATE TO CONSIDER IN THIS ANALYSIS?**

20

21

A. Yes. At page 25, lines 8 through 14, CompSouth's Mr. Gillan explains that the
22 above formula could be made more complicated by including other costs that
23 would be incurred with the use of UNE-L. "... (such as collocation and backhaul)
24 that are not incurred to use UNE-P." AT&T agrees with CompSouth's Mr. Gillan
25 that there are additional costs that could be added to the analysis however, as a

1 member of CompSouth, AT&T supports the straightforward approach and
2 formula proposed by CompSouth's Mr. Gillan.

3
4 **Q. IN KENTUCKY, WHAT IS THE APPROPRIATE CROSSOVER FOR**
5 **MULTI-LINE ANALOG LOOP CUSTOMERS WHERE IT BECOMES**
6 **MORE ECONOMIC TO SERVE A MULTI-LINE CUSTOMER WITH A**
7 **DS1?**

8
9 A. Exhibit MEA-1, attached to my testimony, calculates the average economic
10 crossover a competitive local provider would experience in serving an analog
11 customer in the BellSouth territory within the state of Kentucky based on the
12 number of analog voice lines used by the customer.

13
14 The results of this calculation indicate that, up to 13 DS0s at a customer's
15 location, purchasing individual loops is more cost effective or economic than
16 purchasing a single DS1.

17
18 **Q. WHAT IS THE SOURCE OF THIS CALCULATION?**

19
20 A. Sprint Communications, in Florida, filed a model that calculated an economic
21 crossover specific to the State of Florida.¹ This same model has been populated
22 with some Kentucky specific inputs and now calculates a specific and reasonable
23 economic crossover point for Kentucky, which is consistent with the economic
24 crossover calculation proposed above.

25

¹ Direct Testimony of Kent W. Dickerson, Docket No. 030851-TP, filed December 4, 2003.

1 **Q. WHY DO YOU FIND SPRINT'S MODEL A REASONABLE METHOD**
2 **FOR THE DETERMINATION OF THE ECONOMIC CROSSOVER**
3 **POINT BETWEEN MASS MARKET AND ENTERPRISE CUSTOMERS?**

4
5 A. Sprint is an established ILEC with significant experience in providing service to
6 both multiple DS0 served customers as well as DS1 served customers. Their
7 experience and related data provide a reasonable proxy for the circumstances that
8 would be faced by a CLEC in Kentucky. Further, their model is consistent with
9 the general calculation described by CompSouth witness Gillan in his direct
10 testimony and summarized above.

11
12 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
13 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
14 **DS1 FACILITY?**

15
16 A. This model includes the monthly recurring charges of the unbundled network
17 element DS1 loops, the unbundled network element non-recurring charges for
18 DS1 loops, and the monthly costs of a channel bank installed at the customer's
19 premises used to multiplex multiple voice channels onto a DS1 loop facility.

20
21 **Q. WHAT ARE THE COST COMPONENTS IN THE ECONOMIC COST**
22 **CROSSOVER MODEL FOR THE PROVISION OF SERVICE OVER A**
23 **DS0 FACILITY?**

24
25 A. The model includes the monthly recurring charges of the unbundled network
26 element DS0 loops and the non-recurring charges for unbundled network element

1 DS0 loops. The non-recurring charges reflect the charges for the initial DS0 loop
2 and each additional loop ordered.

3
4 **Q. WHAT ARE THE SOURCES OF UNBUNDLED NETWORK ELEMENT**
5 **PRICES FOR THE MONTHLY RECURRING SERVICES AND THE**
6 **NON-RECURRING SERVICES?**

7
8 A. All unbundled network element prices are those approved by the Kentucky Public
9 Service Commission in Case No. 2001-105.

10
11 **Q. WHAT IS THE SOURCE OF THE ACCESS LINE DATA USED TO**
12 **DETERMINE THE WEIGHTED AVERAGE UNE PRICES?**

13
14 A. The access line data are from the FCC's HCPM (Hybrid Cost Proxy Model) that
15 provided lines by wire center as of 2000.

16
17 **Q. WHAT ADDITIONAL VARIABLES ARE INCLUDED IN THE**
18 **CALCULATIONS?**

19
20 A. A weighted average cost of capital input is used for amortizing the non-recurring
21 charges. This weighted average cost of capital is 13.07%. This utilizes the cost
22 of capital calculated by the FCC in the recent Verizon-Virginia WorldCom
23 Arbitration Order.²

24

² CC Docket No. 00-218, In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc., and for Expedited Arbitration, Memorandum Opinion and Order, August 29, 2003.

1 **Q. HOW ARE THE NON-RECURRING UNBUNDLED NETWORK**
2 **ELEMENT COSTS TREATED IN THE ECONOMIC CROSSOVER**
3 **ANALYSIS?**

4
5 A. The non-recurring unbundled network element charges for establishing DS0 or
6 DS1 services are amortized over a 24 month period using the weighted cost of
7 capital. In this model the assumption is a 24 month average customer life.

8
9 **Q. HOW IS THE MONTHLY COST OF THE CHANNEL BANK AT A DS1**
10 **CUSTOMER PREMISES CALCULATED?**

11
12 A. The monthly cost of the equipment is calculated by dividing the total material cost
13 over the life of the asset, accounting for the cost of capital, nine year depreciation
14 life, income tax, maintenance, and sales tax of 7 percent.

15
16 Material prices reflect the size of the channel bank and cards that would be
17 installed at a customer premises capable of multiplexing one DS1 into DS0s. The
18 material was then amortized. Labor related to the installation of the customer
19 premises channel bank was amortized over 24 months.

20
21 **Q. HOW ARE THESE COST COMPONENTS USED TO CALCULATE AN**
22 **AVERAGE CROSSOVER BETWEEN UNBUNDLED DS0 AND DS1**
23 **LOOPS WITHIN BELLSOUTH'S TERRITORY?**

24
25 A. The Sprint model calculates the UNE provisioning costs of both DS0 and DS1
26 facilities as described above for each central office in the state of Kentucky served

1 by BellSouth. A weighted average cost for each MRC and NRC is computed by
2 multiplying the central office specific result by the percentage of access lines in
3 that central office. The weighted average cost of a DS1 loop is then divided by
4 the weighted average cost of a DS0 loop.

5
6 **Q. WHAT IS THE ECONOMIC CROSSOVER RESULT PRODUCED IN**
7 **THE MODEL?**

8
9 A. The model results indicate that, for up to 13 DS0s at a customer's location,
10 purchasing individual loops is more cost effective, or economic, than purchasing a
11 single DS1. Above 13 DS0s, the DS1 becomes the more cost effective means of
12 providing service to the customer.

13
14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

15
16 A. Yes.

**TRO Economic Business Case
 DS0 to DS1 Cross Over**

State = KY
 Company = BellSouth

A B C D E F

| Row | Description | DS1 + Channel Bank | DS0 | Cross-Over DS0 Quantity | Cross-Over Rounded DS0 Quantity |
|-----|-------------------------|-----------------------|---------|----------------------------|------------------------------------|
| 10 | Weighted Average | | | | |
| 11 | MRC | \$188.93 | \$17.57 | | |
| 12 | NRC - Ammortized | \$41.66 | \$1.19 | | |
| 13 | Total | \$230.59 | \$18.76 | 12.29 | 13 |
| 14 | | | | | |

1 **Inputs**

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|-------------------------------|---------|
| Assumed Term | |
| Months - MRC | 1 |
| Channel Bank (CB) | |
| MRC per DS1 | \$38.02 |
| Assumed Term | |
| Months - NRC | 24 |
| Cost of Capital | |
| | 13.07% |
| Add'l NRC DS0 Quantity | |
| Number of DS0s | 12 |

| UNE DS0 Loop MRC Rates | | | | | |
|------------------------|------|---------|--------|------|--------|
| State | Zone | BS | ILEC | ILEC | ILEC |
| Kentucky | 1 | \$10.56 | \$0.00 | | \$0.00 |
| | 2 | \$15.34 | \$0.00 | | \$0.00 |
| | 3 | \$31.11 | \$0.00 | | \$0.00 |
| | 4 | \$0.00 | \$0.00 | | \$0.00 |
| Weighted Average | | \$17.57 | | | |

| UNE DS1 Loop MRC Rates | | | | | |
|------------------------|------|----------|--------|------|--------|
| State | Zone | BS | ILEC | ILEC | ILEC |
| Kentucky | 1 | \$86.47 | \$0.00 | | \$0.00 |
| | 2 | \$114.10 | \$0.00 | | \$0.00 |
| | 3 | \$297.76 | \$0.00 | | \$0.00 |
| | 4 | \$0.00 | \$0.00 | | \$0.00 |
| Weighted Average | | \$188.93 | | | |

| UNE DS0 Loop NRC Rates | | | | | |
|------------------------|----------------|---------|--------|------|--------|
| State | Description | BS | ILEC | ILEC | ILEC |
| Kentucky | NRC-First | \$46.66 | \$0.00 | | \$0.00 |
| | NRC-Additional | \$22.57 | \$0.00 | | \$0.00 |
| | S.O.-First | \$7.88 | \$0.00 | | \$0.00 |
| Weighted Average | | \$25.03 | | | |

| UNE DS1 Loop NRC Rates | | | | | |
|------------------------|------------------|----------|--------|------|--------|
| State | Description | BS | ILEC | ILEC | ILEC |
| Kentucky | NRC-First | \$306.69 | \$0.00 | | \$0.00 |
| | NRC-Channel Banl | \$561.13 | \$0.00 | | \$0.00 |
| | S.O.-First | \$7.88 | \$0.00 | | \$0.00 |
| Weighted Average | | \$875.70 | | | |

* CLEC cost to install the channel bank at customer premises.