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1 BELL SOUTH TELECOMMUNICATIONS, INC.
2 SURREBUTTAL TESTIMONY OF W. KEITH MILNER
3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4 DOCKET NO. 030851-TP
5 JANUARY 28, 2004
6

7 Q. PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS, AND
8 YOUR POSITION WITH BELL SOUTH TELECOMMUNICATIONS, INC.
9 ("BELL SOUTH").
10

11 A. My name is W. Keith Milner. My business address is 675 West Peachtree
12 Street, Atlanta, Georgia 30375. I am Assistant Vice President -
13 Interconnection Operations for BellSouth.
14

15 Q. ARE YOU THE SAME W. KEITH MILNER THAT FILED DIRECT AND
16 REBUTTAL TESTIMONY IN THIS PROCEEDING?
17

18 A. Yes.
19

20 Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY
21 FILED TODAY?
22

23 A. The first part of my surrebuttal testimony responds to criticisms regarding
24 the inputs to BellSouth's BACE model that I provided. In that part of my
25 testimony, I discuss several areas in which the default inputs to the BACE

1 model cause the model to yield financially conservative results. The
2 second part of my testimony provides surrebuttal to the rebuttal
3 testimonies of Mr. David A. Nilson on behalf of Supra Telecommunications
4 and Information Systems, Inc. ("Supra") and Mr. Mark David Van de Water
5 on behalf of AT&T Communications of the Southern States, LLC ("AT&T").
6

7 **BACE Model Assumptions**

8 Q. PLEASE EXPLAIN HOW BELL SOUTH'S BACE MODEL USES
9 CONSERVATIVE INPUTS AND THUS YIELDS CONSERVATIVE
10 OUTPUTS.
11

12 A. In my opinion, BellSouth's BACE model yields conservative results
13 based on inputs made for the following elements:
14 1. The quantity of switches a CLEC will operate in a Local Access and
15 Transport Area ("LATA")
16 2. The quantity of trunk groups between a CLEC's switch and the
17 E911 tandems in a LATA
18 3. The use of Special Access transport instead of CLEC-provided
19 transport between the CLEC's central office and the BellSouth
20 access tandem
21 4. The use of Special Access transport instead of CLEC-provided
22 transport between the CLEC's switch and the CLEC's choice of
23 Directory Assistance and Operator Services platforms
24 5. The deployment of a voicemail platform per LATA
25 6. The portion of unbundled loops provisioned as Service Level 2

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1 ("SL2") loops rather than lower priced Service Level 1 ("SL1") loops
2 7. The use of current "full price" Non-Recurring Charge ("NRC") levels
3 rather than discounted levels for all cutover of unbundled loops

4
5 I discuss each of these issues in greater detail below.

6
7 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
8 THE QUANTITY OF SWITCHES A CLEC WILL OPERATE IN A LOCAL
9 ACCESS AND TRANSPORT AREA ("LATA") WILL YIELD A
10 CONSERVATIVE RESULT.

11
12 A. The default BACE inputs assume a CLEC will deploy at least one switch
13 per LATA. As was discussed in my direct and rebuttal testimony in this
14 proceeding, CLECs can deploy a single switch and provide service to end
15 users over a very large geographic area, perhaps even over an entire
16 state or more. Thus, the default assumption that a CLEC will place at least
17 one switch per LATA results in a higher quantity of switches deployed

18
19 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
20 THE QUANTITY OF TRUNK GROUPS BETWEEN A CLEC'S SWITCH
21 AND THE E911 TANDEMS IN A LATA WILL YIELD A CONSERVATIVE
22 RESULT.

23
24 A. In developing the default input for the quantity of E911 trunks a CLEC
25 would deploy, I found that the maximum quantity of E911 tandems in a

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1 single LATA in BellSouth's region is six (6). Thus, the BACE default
2 assumption is that a CLEC will equip its switch for six (6) DS-1 transport
3 facilities (one each to the E911 tandem switches) which, if fully equipped,
4 would provide for 144 simultaneous calls to E911 operators from the
5 CLEC's switch. Since most end office switches have only one or two trunk
6 groups to E911 tandem switches, this assumption results in a higher
7 quantity of E911 trunk groups being equipped.

8

9 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
10 THE USE OF SPECIAL ACCESS INSTEAD OF CLEC-PROVIDED
11 FACILITIES BETWEEN THE CLEC'S CENTRAL OFFICE AND THE
12 BELLSOUTH ACCESS TANDEM WILL YIELD A CONSERVATIVE
13 RESULT.

14

15 A. The default assumption in the BACE model is that a CLEC will use Special
16 Access facilities rather than CLEC-provided facilities to connect the
17 CLEC's switch to BellSouth's access tandem. In cases where the CLEC
18 self-provides these facilities and where the resulting costs are less, BACE
19 derives a higher cost that would actually be incurred. Further, BACE
20 determines the quantity of DS-1 or DS-3 equivalents required based on
21 traffic loads. Since BACE does not assume the use of higher transport
22 facilities than DS-3, BACE will, depending on traffic demand, deploy
23 multiple DS-3 circuits rather than OCn circuits which in some situations
24 would be more efficient and thus less costly.

25

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1 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
2 THE USE OF SPECIAL ACCESS TRANSPORT INSTEAD OF CLEC-
3 PROVIDED TRANSPORT BETWEEN THE CLEC'S SWITCH AND THE
4 CLEC'S CHOICE OF DIRECTORY ASSISTANCE AND OPERATOR
5 SERVICES PLATFORMS WILL YIELD A CONSERVATIVE RESULT.

6

7 A. The default assumption is that a CLEC will elect the use of Special Access
8 facilities rather than self-provided facilities between the CLEC's switch and
9 the CLEC's choice of director assistance platform. Likewise, BACE
10 assumes the use of Special Access rather than CLEC-provided facilities to
11 transport traffic between the CLEC's switch and the CLEC's choice of
12 operator services platform. In any case where the CLEC self-provides this
13 transport and the resulting cost is less than Special Access charges,
14 BACE will have assumed a higher cost to the CLEC than would actually
15 be incurred.

16

17 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
18 THE DEPLOYMENT OF A VOICEMAIL PLATFORM PER LATA WILL
19 YIELD A CONSERVATIVE RESULT.

20

21 A. As with switches, voicemail platforms can be equipped to handle demand
22 over a very large geographic area, often over an entire state or even
23 larger. Thus, the default assumption within the BACE model yields a
24 conservative result because the quantity of voicemail platforms assumed
25 to be deployed would be larger than a CLEC would actually probably

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1 deploy.

2

3 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION REGARDING
4 THE PORTION OF UNBUNDLED LOOPS PROVISIONED AS SERVICE
5 LEVEL 2 ("SL2") LOOPS RATHER THAN LOWER PRICED SERVICE
6 LEVEL 1 ("SL1") LOOPS WILL YIELD A CONSERVATIVE RESULT.

7

8 A. The model assumes a high proportion (45% of non-DSL customers) of
9 mass market unbundled loops will be purchased as SL-2 loops. This level
10 was chosen assuming that CLECs would continue to order the higher-
11 priced SL2 loops as they have in the recent past. SL2 loops are designed
12 loops that are provisioned with test points that allow automated testing.
13 The CLEC also receives a Detailed Layout Record ("DLR") depicting the
14 loop makeup. Providing the test points and DLRs adds cost over those
15 incurred in the provisioning of SL1 loops that are not equipped with test
16 points and do not come with a DLR. In my opinion, CLECs will not choose
17 SL2 loops for residential end users. For small business customers, the
18 CLECs may sometimes choose SL2 loops over SL1 loops. Since the
19 existing UNE-P base is predominantly residential customers, the default
20 assumption in the BACE model that 45% of all unbundled loops will be
21 provided as SL2 loops is probably overstated and thus results in the
22 model deriving higher CLEC costs.

23

24 Q. PLEASE EXPLAIN HOW BELLSOUTH'S ASSUMPTION THAT ALL
25 CUTOVER OF UNBUNDLED LOOPS WILL BE PRICED AT THE

1 CURRENT NON-RECURRING CHARGE ("NRC") LEVELS RATHER
2 THAN DISCOUNTED LEVELS WILL YIELD A CONSERVATIVE
3 RESULT.

4
5 A. The BACE model assumes that all NRCs for unbundled loop provisioning
6 are the current NRCs. BellSouth has announced discounts off the NRC
7 for CLECs using the Batch Hot Cut method of 10%. For CLECs using the
8 Mass Migration method described in the surrebuttal testimony of BellSouth
9 witness Milton McElroy, the discounts are even steeper. Thus, the BACE
10 model calculates NRCs higher than will be experienced by CLECs using
11 the Batch Hot Cut method or the Mass Migration method.

12

13 **Rebuttal to Mr. Nilson**

14 Q. ON PAGE 5 OF HIS TESTIMONY, MR. NILSON DESCRIBES SUPRA'S
15 NETWORK ARCHITECTURE AS BEING COMPOSED OF A HOST
16 SWITCH, A REMOTE SWITCH AND SIXTEEN OUTLYING LOCATIONS
17 WHERE SUPRA HAS INSTALLED DIGITAL LOOP CARRIER ("DLC")
18 EQUIPMENT IN ORDER TO SERVE ITS CUSTOMERS. WHAT IS
19 YOUR UNDERSTANDING OF SUPRA'S NETWORK ARCHITECTURE?

20

21 A. My understanding of Supra's network architecture generally agrees with
22 Mr. Nilson's description. Instead of a total of 18 collocation arrangements
23 in place (that is, the two (2) switch locations plus the 16 DLC equipment
24 locations), BellSouth's records indicate that BellSouth has provided a total
25 of ***-----*** collocation arrangements in Florida which are geographically

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1 dispersed. ***-----
2 -----
3 -----,*** The two (2) switches to which Mr. Nilson refers and
4 that Supra operates are collocated in two (2) different BellSouth central
5 offices in Florida. The host switch is collocated in BellSouth's North Dade
6 Golden Glades central office and the remote switch is collocated in
7 BellSouth's Miami Red Road central office. The 16 locations wherein Mr.
8 Nilson states Supra has collocated DLC equipment for aggregating
9 unbundled loops for delivery to either the Golden Glades or Red Road
10 switch are likewise collocated within BellSouth central offices. Thus,
11 Supra has at present access to the loops in at least 18 (by Supra's count)
12 and as many as ***---*** (by BellSouth's count) of BellSouth's central
13 offices, all of which are in Florida.

14
15 Q. WHAT IS THE GEOGRAPHIC DISPERSION OF SUPRA'S
16 COLLOCATION ARRANGEMENTS?

17
18 A. While most of the collocation arrangements are ***-----
19 -----,*** Supra also has collocation in ***-----
20 -----,*** Thus, even with its existing
21 collocation arrangements, Supra has a large geographic "footprint" that
22 reaches many consumers in the state.

23
24 Q. HOW COULD SUPRA EXTEND THE REACH OF ITS NETWORK EVEN
25 FURTHER?

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1 A. Supra (as well as all other facilities based Competitive Local Exchange
2 Carriers (“CLECs”) have different options as I described in my direct
3 testimony in this proceeding. Supra has chosen one of the options I
4 described, namely establishing collocation arrangements in each central
5 office in which it acquires customers. Supra then uses its DLC equipment
6 to aggregate the loops in a given central office for transport to one of its
7 switches. Supra (and other CLECs) could also make use of so-called
8 Enhanced Extended Links (“EELs”) wherein Supra would establish
9 collocation in a single central office and BellSouth would deliver the loops
10 from outlying central offices to that single office.

11

12 Q. ON PAGE 5 OF HIS TESTIMONY, MR. NILSON STATES THAT SUPRA
13 IS ACTUALLY SERVING 6,000 LINES OVER ITS OWN SWITCHES AT
14 PRESENT. PLEASE COMMENT.

15

16 A. BellSouth’s records indicate that it had performed ***-----*** “hot cuts” at
17 Supra’s request. This number is not reduced for any unbundled loop
18 disconnects that Supra may have requested so Supra’s number and
19 BellSouth’s number are probably both reasonably accurate. More
20 importantly than the actual quantity of unbundled loops in service at
21 present, is the fact that Supra has only recently begun ordering unbundled
22 loops in significant quantities. Supra ordered its first unbundled loops
23 about ***-----, *** so I am not surprised that, compared to Supra’s
24 entire customer base of about 300,000 lines (that is, the volume of
25 customers Mr. Nilson claims Supra serves), the portion actually connected

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1 to Supra's switches is relatively small. However, even in the short period
2 that Supra has begun using unbundled loops connected to its switches,
3 Supra and BellSouth have provisioned over ***-----*** unbundled loops
4 in a single BellSouth central office ***-----*** Proprietary
5 Exhibit WKM-5, attached to this testimony, shows each of Supra's ***---***
6 collocation arrangements in place and the quantity of unbundled loops
7 which BellSouth has provisioned via the "hot cut" process. Thus,
8 BellSouth has already provided unbundled loops in ***----*** different
9 central offices in Florida and stands ready to provide unbundled loops in
10 the remaining ***--*** central offices where Supra has established
11 collocation. Finally, Supra is free to acquire collocation in other BellSouth
12 central offices in Florida. BellSouth's witness Wayne Gray discusses the
13 topic of collocation availability.

14
15 Q. ON PAGE 10 OF HIS TESTIMONY, MR. NILSON SUGGESTS THAT IN
16 EXCESS OF 20,000 "HOT CUTS" PER MONTH ARE REQUIRED IN THE
17 MASS MARKET. CAN BELL SOUTH HANDLE THAT MANY "HOT CUTS"
18 PER MONTH?

19
20 A. Yes. Let's look at the daily volumes that would be required at the central
21 office level. Given 23 business days per month, a total volume of 20,000
22 would equate to 870 "hot cuts" per day (that is, 20,000 / 23). Assuming
23 that all of that daily "hot cut" volume is focused in the ***----*** central
24 offices within which Supra already has collocation, the daily volume on
25 average per central office is only slightly more than ***-----***

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1 -----.*** As BellSouth's witnesses Ainsworth, Heartley and McElroy
2 demonstrate in their respective testimony, BellSouth's "hot cut" capability
3 per central office per day is at least several times greater than Mr. Nilson
4 speculates may be the extreme volume.

5
6 Q. ON PAGE 15 OF HIS TESTIMONY, MR. NILSON STATES THAT SUPRA
7 SERVES 20,000 CUSTOMERS IN THE PEMBROKE PINES CENTRAL
8 OFFICE BUT SERVES "LESS THAN ONE SIXTH" THAT NUMBER IN
9 THE WESTON CENTRAL OFFICE. WHAT ARE THE RELATIVE SIZES
10 OF BELL SOUTH'S PEMBROKE PINES AND WESTON CENTRAL
11 OFFICES IN TERMS OF THE TOTAL QUANTITY OF LINES SERVED?

12
13 A. BellSouth's Pembroke Pines central office serves a total of about 144,000
14 lines. Thus, Supra serves about 14% of the total lines in that central
15 office. While I cannot determine with precision from Mr. Nilson's testimony
16 the quantity of customer lines Supra claims to serve from the Weston
17 central office, assume Supra has one seventh the quantity of customer
18 lines in Weston than it has in Pembroke Pines. I used one seventh
19 inasmuch as Mr. Nilson stated that Supra had less than one sixth as many
20 customers in Weston as in Pembroke Pines. Thus, Supra would have
21 about 2,857 customer lines in the Weston central office (20,000 / 7).
22 Since the Weston central office serves a total of about 40,000 customer
23 lines, even in the Weston central office, Supra has won about 7% of the
24 market and thus has a significant customer base to work with.

25

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1 Q. ON PAGE 17 OF HIS TESTIMONY, MR. NILSON DISCUSSES THE
2 ISSUE OF UNBUNDLED LOOPS AND INTEGRATED DIGITAL LOOP
3 CARRIER (“IDLC”) EQUIPMENT. HE SUGGESTS THAT
4 PROVISIONING UNBUNDLED LOOPS SERVED BY IDLC IS
5 PROBLEMATIC IN THAT “THE FACILITIES [THAT IS, UNIVERSAL
6 DIGITAL LOOP CARRIER (“UDLC”) AND COPPER LOOPS] “DOE NOT
7 EXIST IN ANY LARGE NUMBER AND THOSE THAT DOE ARE
8 ALREADY PARTIALLY OR FULLY USED BY BELLSOUTH ITSELF.” [sic]
9 DO YOU AGREE THAT BELLSOUTH DOES NOT HAVE SUFFICIENT
10 UDLC OR COPPER FACILITIES CAPACITY?

11

12 A. No. The direct testimony of BellSouth witness Ainsworth discussed the
13 various alternatives that BellSouth can exercise to provide loops served by
14 IDLC on an unbundled basis. Further, instances where a given carrier
15 serving area is composed of IDLC-derived loops is fairly uncommon given
16 that IDLC technology was introduced relatively recently compared to
17 copper loops and older forms of Digital Loop Carrier (“DLC”). This means
18 that in most cases UDLC facilities and copper loop facilities are available
19 and can be used. In addition to moving a particular loop from IDLC to
20 UDLC or to copper loop facilities, additional alternatives such as the use of
21 “side door” or “hairpin” solutions can also be called upon. While each of
22 the eight alternatives Mr. Ainsworth discusses in his direct testimony is not
23 always available at every DLC remote terminal, BellSouth successfully
24 handles unbundled loops served by IDLC on a daily basis.

25

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1 Q. BEGINNING ON PAGE 18 OF HIS TESTIMONY, MR. NILSON
2 DISCUSSES THE AVAILABILITY OF ENHANCED EXTENDED LINKS
3 (“EELs”) AS AN ALTERNATIVE TO COLLOCATION IN EVERY
4 BELLSOUTH WIRE CENTER. ON PAGE 19 HE STATES “BELLSOUTH
5 SIMPLY CANNOT PROVIDE 290,000 POTS EELs TO REPLACE THE
6 UNE-P SERVICE BEING PROVIDED TO SUPRA CUSTOMERS
7 TODAY.” WHAT IS YOUR UNDERSTANDING OF THE BASIS FOR MR.
8 NILSON'S STATEMENT?

9
10 A. I do not know and he does not explain why he believes EELs are
11 unavailable. While I would agree with Mr. Nilson that CLECs in general
12 have not availed themselves of large quantities of DS0 EELs, I believe
13 that is because in many instances CLECs have simply served their
14 customers via UNE-P arrangements rather than over their own switches.
15 In Supra's case, it elected collocation of its DLC equipment to aggregate
16 loops in a given central office for transport to its switches and, in my
17 opinion, has done so successfully. I am not aware of any intention
18 expressed by Supra to change its strategy of using collocation to serve its
19 customers.

20
21 Q. ON PAGE 23 OF HIS TESTIMONY, MR. NILSON DISCUSSES CLECs'
22 COSTS FOR UNBUNDLED LOOPS AND COLLOCATION AND STATES
23 “ON TOP OF THESE COSTS, THE CLEC MUST PAY ENORMOUS
24 NONRECURRING CHARGES TO THE ILEC TO CONVERT A
25 CUSTOMER'S SERVICE FROM UNE-P TO UNE-L CUSTOMER'S

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1 SERVICE.” [Footnote omitted] DO YOU AGREE WITH MR. NILSON
2 REGARDING NONRECURRING CHARGES FOR UNBUNDLED
3 LOOPS?

4
5 A. No. The nonrecurring rates BellSouth is allowed to charge CLECs in
6 Florida was set by this Commission in its Docket 990649-TP. The
7 Commission set those rates after hearing extensive testimony from
8 BellSouth and from interested CLECs. Mr. Nilson claims that it would take
9 Supra months to recover the nonrecurring cost for the unbundled loop
10 compared to the nonrecurring cost were that same customer served by
11 UNE-P. Mr. Nilson misses the point. If Mr. Nilson is concerned about the
12 nonrecurring cost, Supra could elect to use BellSouth's bulk migration
13 process (BellSouth's witnesses Ken Ainsworth and Milton McElroy discuss
14 this process in their respective testimony in this proceeding) and thus gain
15 a 10% discount. More importantly, however, there is physical work
16 required to move the loop serving an end user from BellSouth's switch to
17 the CLEC's switch. For an end user transferring its service from
18 BellSouth's retail operation to a CLEC using UNE-P, there is no
19 corresponding physical work in the central office. BellSouth should be
20 compensated for the work it performs on behalf of a CLEC who uses its
21 own switches (or a third party's switches) rather than BellSouth's switches.
22 Instead, Mr. Nilson appears to “wish away” that physical work and the
23 costs accompanying that work.

24
25 Q. ON PAGE 27 OF HIS TESTIMONY, MR. NILSON SUGGESTS THAT

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1 THE COMMISSION GIVE NO CONSIDERATION TO ELIMINATING UNE-
2 P WHEN THE CLEC'S SWITCH IS PHYSICALLY LOCATED OUTSIDE
3 THE RATE CENTER. DO YOU AGREE?

4
5 A. In my direct testimony in this proceeding I quoted testimony filed in other
6 dockets by witnesses representing AT&T and MCI who claimed their
7 respective switches could serve very large geographic areas. Most or all
8 modern switching systems are capable of serving end users in more than
9 a single rate center. Indeed it is not at all uncommon to find switches that
10 serve end users in more than one state. Even in BellSouth's network, it is
11 common to find single switches located physically close to the state
12 boundary serving end users in the state in which the switch is located as
13 well as end users in the neighboring state. Thus, the Commission should
14 not infer from Mr. Nilson's suggestion that modern switches (including
15 Supra's switches) are incapable of providing service to end users in
16 multiple rates centers or even in multiple states. Indeed, Mr. Nilson's own
17 testimony on pages 46-47 shows that Supra's two switches provide
18 service to end users in eight different rate centers in LATA 460 and six
19 other rate centers from Orlando to Pensacola.

20
21 Q. ON PAGE 48 OF HIS TESTIMONY, MR. NILSON STATES "SUPRA IS
22 COMMITTED TO THE PROCESS OF CONVERTING ITS 300,000 PLUS
23 UNE-P CUSTOMERS TO UNE-L, AND WILL GROW ITS NETWORK
24 DEPLOYMENT BEYOND THE 28,000 LINE CURRENT CAPACITY IF
25 GIVEN THE CHANCE TO DO SO." IN YOUR OPINION, ARE SUPRA'S

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1 TWO (2) SWITCHES CAPABLE OF HANDLING 300,000 CUSTOMER
2 LINES?

3
4 A. Possibly. The actual line capacity of a switch is a function of several
5 factors including physical line capacity as well as call-handling capability
6 of the call processors. Further, the various equipment components
7 comprising a given switch are modular in nature and manufacturers
8 design their switching equipment to capacity break points. In my
9 experience it is rare that a service provider equips its switches at the
10 outset for the ultimate capacity of the switch. Instead, rational firms
11 determine forecasts of switching capacity required and then, using
12 common economic techniques, determine the amount of capacity that is
13 sufficient to handle expected growth while still yielding the best economic
14 rate of return. As a result, telephone service providers periodically
15 augment existing switching capacity in response to anticipated demands.
16 I will note, however, that on its website
17 ([http://www.lucent.com/livelink/090094038004f536_Brochure_datasheet.p](http://www.lucent.com/livelink/090094038004f536_Brochure_datasheet.pdf)
18 [df](http://www.lucent.com/livelink/090094038004f536_Brochure_datasheet.pdf)), Lucent Technologies claims that its 5E-XC switch (which is an
19 expansion to Lucent's 5ESS product line which Supra purchased and
20 installed) will handle up to one (1) million customer lines and four (4)
21 million busy hour calls. Thus, in my opinion, Supra can augment the
22 capacity of its two switches significantly were it to choose to do so.

23
24
25

1 **Rebuttal to Mr. Van de Water**

2 Q. ON PAGE 31 OF HIS TESTIMONY, MR. VAN DE WATER CONTENDS
3 THAT THE SPECIFIC ISSUES HE IS CONCERNED ABOUT ARE
4 COLLOCATION SPACE AND TRUNK BLOCKING. MR. VAN DE WATER
5 CONTENDS THAT IF UNBUNDLED LOCAL SWITCHING IS NO
6 LONGER AVAILABLE AT COST-BASED RATES TO CLECS,
7 CUSTOMER SERVICE WILL BE NEGATIVELY IMPACTED. DO YOU
8 AGREE?

9
10 A. No. I will address Mr. Van de Water's concerns regarding the adequacy of
11 BellSouth's trunking facilities and BellSouth's witness Mr. Wayne Gray will
12 address Mr. Van de Water's concerns regarding collocation space.

13
14 Q. PLEASE BRIEFLY DESCRIBE THE CONSIDERATIONS TAKEN INTO
15 ACCOUNT WHEN DESIGNING AND DEPLOYING TRUNKING
16 FACILITIES.

17
18 A. Traffic volumes (that is, levels of simultaneous customer calling) reach
19 peaks during certain hours of the day or week. Trunks connecting the
20 various switches in a local calling area are usually engineered to
21 accommodate a verage time-consistent busy-hour loads in the busy
22 season of the year, typically the three highest months in a year for traffic
23 volumes. Switching systems in a LATA are interconnected by a network
24 of trunks. These interconnections provide for both intraLATA and
25 interLATA services. For interLATA services, trunks connect most LEC

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1 networks to the networks of the Interexchange Carriers ("IXCs"). For
2 intraLATA services, trunks connect the various end office switches (both
3 incumbents' switches and CLECs' switches) and, if used, the tandem
4 switches. Trunks between switching systems are most commonly carried
5 on channels of digital carrier systems (Digital Signal level 1 or "DS-1" and
6 higher-order systems). The successful completion of traffic dialed by
7 customers and operators depends upon a trunking network in which
8 blocked call conditions are rarely encountered under expected conditions.

9
10 Q. PLEASE BRIEFLY DESCRIBE MR. VAN DE WATER'S CONCERN
11 REGARDING TRUNKING FACILITIES.

12
13 A. Mr. Van de Water suggests that once CLECs serve their customers from
14 the CLECs' switches rather than from the incumbent's switches, traffic
15 congestion and call blockage will occur due to traffic displacement. Let
16 me give an example of how traffic displacement might occur. Let us
17 assume that in a given local calling area there are at present only three (3)
18 switches (Switches A, B, and C) handling all the customers. Assume that
19 each switch handles 10,000 customers and that all customers have similar
20 calling habits. A CLEC has won 25% of the customers and serves those
21 customers via UNE-P arrangements acquired from the switch owner.
22 Further assume that within a given switch the 10,000 customers each
23 make three calls and that 50% of those calls are to customers to other
24 customers served by that same switch and that the remaining 50% of the
25 calls area split evenly to the customers served by the other two (2)

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1 switches. Lastly, to simplify, assume the use of one-way rather than two-
2 way trunking.

3

4 Thus, in my hypothetical example, Switch A handles 30,000 calls in the
5 busy hour. Half (50%) of those calls are intra-switch calls so no external
6 trunking is needed for those calls to be completed. Trunking facilities to
7 the other two (2) switches (Switches B and C) must be sized to handle
8 15,000 simultaneous calls in the busy hour. In this simple example, each
9 of the three (3) switches would have two (2) outgoing trunk groups (one
10 trunk to each of the other two switches) and two (2) incoming trunk groups
11 (one trunk from each of the other two switches).

12

13 If a fourth switch (let us assume that the new switch is the CLEC's switch
14 referred to as Switch D) is introduced into the local calling area and if the
15 CLEC moves all of its 7,500 customers to that switch ($30,000 * 0.25$) then
16 traffic is displaced from the existing trunk groups connecting Switches A,
17 B, and C onto new trunk groups connecting Switches A and D, Switches B
18 and D, and Switches C and D. Even though the total traffic load is
19 precisely the same before and after the CLEC moved its own customers to
20 its own switches, the "old trunk groups" are over-sized in that they were
21 sized for larger loads than they will now be required to carry. The traffic
22 volume that was displaced from these trunk groups is displaced to new
23 trunk groups from Switches A, B, and C respectively to new Switch D.

24

25 Q. HOW DO TRUNKING ENGINEERS HANDLE TRAFFIC DISPLACEMENT

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1 ISSUES?

2

3 A. In my simple example above, the situation calls for building new trunk
4 groups between Switches A, B, and C respectively to the new Switch D.
5 Once those trunk groups are operational and the traffic displacement has
6 occurred (that is, the CLEC has moved its customers to its own switches),
7 the “old trunk groups” may be re-sized (decremented) in response to the
8 smaller loads on them or they can be left alone if the excess capacity is
9 expected to be consumed (due to overall customer growth) in a
10 reasonable period.

11

12 Q. IS TRAFFIC DISPLACEMENT AN ARTIFACT OF CLECs DEPLOYING
13 THEIR OWN SWITCHES?

14

15 A. Certainly not. For many years, telecommunications engineers have
16 confronted and successfully handled traffic displacement. Just a few
17 examples include the following:

18 The introduction of new wire centers (central offices) and thus
19 additional switching systems

20 The replacement of older switching system technology with
21 newer switching system technology

22 The introduction or expansion of so-called Extended Area
23 Service (“EAS”) toll-free calling areas

24

25

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1 Q. DO YOU BELIEVE IT IS A REASONABLE EXPECTATION THAT CALL
2 BLOCKING WILL OCCUR ONCE CUSTOMERS ARE MOVED FROM
3 INCUMBENTS' SWITCHES TO CLECs' SWITCHES?
4

5 A. No. Just as trunking engineers have successfully planned for large-scale
6 traffic displacement in the past, they will do so in the situation where
7 CLECs begin using their own switches. I expect the trunking engineers
8 will create new trunk groups in response to CLEC requests and that those
9 trunk groups will be of sufficient size so as to not cause traffic congestion
10 or call blockage. Once the customers are moved, trunking engineers will
11 use the extensive traffic reporting capabilities already available to them to
12 ensure that trunking facilities are adequately sized.
13

14 Q. MR. VAN DE WATER, ON PAGE 33 OF HIS TESTIMONY, EXPRESSES
15 CONCERN ABOUT THE MOVEMENT OF TRAFFIC FROM
16 BELLSOUTH'S EXISTING LOCAL SWITCH NETWORK ONTO ITS
17 TANDEM TRANSPORT NETWORK NECESSITATED BY THE
18 CONVERSION OF THE EMBEDDED BASE OF UNE-P CUSTOMERS TO
19 CLECs' SWITCHES. DO YOU CONCUR?
20

21 A. No. This is essentially the same concern as Mr. Van de Water expresses
22 for individual trunk groups. Here, he opines that the tandem switches and
23 the trunk groups connecting end office switches and tandem switches are
24 insufficiently sized and that call blockage will occur. I disagree with his
25 conclusions regarding tandem switching capacities for the same reasons

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1 as I set out in response to his concerns regarding trunk group adequacy.
2 Essentially, the same call volumes will be present whether the calls are
3 handled over the incumbents' switches (that is, their own customers'
4 calling plus the CLECs' customers' calling) or in the case where CLECs
5 move their customers to their own switches. While I agree that traffic
6 displacement will occur, that situation has occurred countless times in the
7 past and trunking engineers and switching engineers have successfully
8 handled those transitions. I fully expect that this situation will be no
9 different in that respect.
10

11 Q. ON PAGE 35 OF HIS TESTIMONY, MR. VAN DE WATER EXPRESSES
12 CONCERN OVER WHETHER BELLSOUTH'S TANDEM SWITCHES
13 CAN HANDLE THE INCREASED TRAFFIC LOAD RESULTING FROM
14 UNE-P TO UNE-L CONVERSION. PLEASE COMMENT.

15
16 A. There is no increased call volume as a result of CLECs moving their
17 customers to their own switches. Instead, the same amount of calling
18 must be handled in a different way. Just as has happened in the past,
19 certain trunk groups will be added (or augmented) to handle traffic that
20 was handled differently before the traffic displacement while after the
21 transition certain trunk groups can be decremented. While there may be a
22 need to augment tandem switching capacity should CLECs initially route
23 their traffic exclusively through the tandem switches to reach all other local
24 switches, over time I expect that CLECs will elect direct trunking between
25 their switches and certain other switches in a given local calling area thus

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1 diminishing the total traffic load handled by the tandem switches.

2

3 Q. DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY?

4

5 A. Yes.

Supra Loop Migration Volumes

As of January 8, 2004

BellSouth Telecommunications, Inc.
Florida Public Service Commission
Docket No. 030851-TP
Exhibit WKM-5
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