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**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of

**Joint Application by BellSouth
Corporation, BellSouth
Telecommunications, Inc., and BellSouth
Long Distance, Inc. for Provision of In-
Region, InterLATA Services Georgia
And Louisiana**

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CC Docket No. 02-35

**SUPPLEMENTAL DECLARATION OF MICHAEL LIEBERMAN
ON BEHALF OF AT&T CORP.**

I. BACKGROUND AND SUMMARY

1. My name is Michael R. Lieberman. I am the same Michael R. Lieberman that submitted testimony on October 19, 2001 in response to BellSouth’s first joint Section 271 application for Georgia and Louisiana. The purpose of my supplemental testimony is to update the data in my analysis showing that BellSouth’s UNE rates in Georgia and Louisiana are substantially overstated.

2. As I demonstrate below, BellSouth’s Georgia and Louisiana non-loop rates, by BellSouth’s own admission, are far above TELRIC levels. I also show that BellSouth’s Georgia daily usage file (or “DUF”) charge is far above TELRIC levels. Indeed, the DUF charge on which BellSouth’s Georgia Section 271 application is predicated is more than double that recently proposed by BellSouth itself in Georgia (in a separate UNE rate proceeding).

3. One reason why the BellSouth Georgia non-loop related rates are inflated is that those rates are based on outdated pre-1997 data. As I demonstrate below, BellSouth’s Georgia switch-related costs (which are the primary component non-loop charges) have declined

dramatically since then. Therefore, even if BellSouth's Georgia rates approximate 1997 forward-looking costs (and BellSouth has not established that they do), those rates far exceed 2002 forward-looking costs. As I demonstrate below, a similar phenomenon inflates BellSouth's DUF rates.

4. In addition, my analysis of BellSouth's Louisiana rates shows that the conditions necessary to support residential competitive entry in that state do not exist because BellSouth's Louisiana UNE rates are far too high to support mass-market UNE-P retail offerings. This result holds true even when all revenues and benefits that could be incrementally obtained from providing UNE-based local services (*e.g.*, the sale of vertical services) are considered.

5. There are no other feasible entry alternatives available to CLECs in Louisiana. Resale is not a feasible alternative because the margins available to resale entrants are not sufficient to support residential entry. Nor is residential UNE-L an economically or practically feasible entry alternative to UNE-P in Louisiana.

II. BELLSOUTH'S GEORGIA NON-LOOP AND DUF RATES ARE VASTLY INFLATED ABOVE TELRIC LEVELS.

6. BellSouth's Georgia Section 271 Application is predicated on non-loop rates that yield total non-loop charges of \$6.83/line/month. *See* Exhibit A-1 (attached).¹ BellSouth, citing changes in costs, *proposed* new non-loop rates in October 2001 and again in February 2002 in an ongoing UNE rate proceeding before the Georgia Public Service Commission ("GPSC"). BellSouth claims that these proposed non-loop rates are TELRIC-compliant. BellSouth's

¹ The total per line non-loop related charge includes the end office line-side ports and usage, as well as end office trunk ports, and transport elements. *See* Exhibit A-2 (attached). The per line charge was computed by applying the Commission's usage profiles for benchmarking purposes as defined in its *Pennsylvania 271 Order*, n.252. *See id.* This charge does not include DUF charges.

February 2002 proposed non-loop rates result in non-loop charges of \$3.78.² Thus, if BellSouth is correct in stating that its February 2002 proposed non-loop rates are TELRIC-compliant, then the non-loop charge on which its Section 271 application is predicated exceeds today's TELRIC levels by 81%. *See id.*

7. The DUF rates in BellSouth's Application also are substantially overstated. The DUF rates relied on by BellSouth in its Georgia Application result in recurring DUF charges of \$2.96. BellSouth has effectively conceded that those rates are too high. The DUF rates contained in BellSouth's two recent proposals to the GPSC in the ongoing rate proceeding produce recurring DUF charges of \$1.40. *See Exhibit B-1.* That DUF charge is more in line with the \$1.37 DUF charge BellSouth implemented in Louisiana last December. *See Exhibit B-1.*

8. One reason why BellSouth's non-loop rates are so overstated is that the switching rates (which are the predominant component of the non-loop charges) in BellSouth's Application are based on 1997 and earlier data. Since then, BellSouth's Georgia switching costs have plummeted, a fact that this Commission has already recognized.³ BellSouth's ARMIS data

² This \$3.78 non-loop charge does not reflect BellSouth's feature port additive charge ("FPA") of \$2.27. As I explained in my initial testimony, that charge is inappropriate and has in the past been rejected by both the GPSC and the Louisiana Public Service Commission ("LPSC"). *See Lieberman Initial Decl.* ¶ 9. In any event, even with the FPA charge, the non-loop charge in BellSouth's Application still exceeds its newly proposed non-loop charge by 13%. *See Exhibit A-1 (attached).*

³ *See, e.g., Order on Remand and Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Intercarrier Compensation for ISP-Bound Traffic*, CC Dockets No. 96-98 and 99-68, FCC 01-131, at 84, n. 157, 93 (April 27, 2001) (citing Letter from David J. Hostetter, SBC, to Magalie Roman Salas, Secretary, FCC (Feb. 14, 2001), Attachment (citing September 2000 Morgan Stanley Dean Witter report that discusses utilization of lower cost switch technology); Donny Jackson, "One Giant Leap for Telecom Kind?," *Telephony*, Feb. 12, 2001, at 38 (discussing cost savings associated with replacing circuit switches with packet switches); Letter from Gary L. Phillips, SBC, to Magalie Roman Salas, Secretary, FCC (Feb. 16, 2001) (attaching press release from Focal Communications

illustrates this point. Analysis of BellSouth's Georgia net switch investments and its dial equipment minutes ("DEMs") shows that net switch investments have declined on a per-minute-of-use basis for the past several years and that net switch investment has grown much slower than DEMs. The slow growing net switch investment, combined with the explosive increase in minutes, results in a 40% decline in net switching investment per DEM between 1996 and 2002. *See id.*⁴ Likewise, BellSouth's outdated and understated demand assumptions underlying its DUF rates severely overstates those rates. If BellSouth had used more current demand assumptions, BellSouth's DUF rates would reflect the fact that its relatively fixed DUF investment could be spread over a higher level of demand.

9. Based on this evidence, the non-loop and DUF rates relied on by BellSouth in its Georgia Application are substantially overstated.

III. BELLSOUTH'S LOUISIANA UNE NON-LOOP RATES ARE VASTLY INFLATED ABOVE TELRIC LEVELS AND FORECLOSE PROFITABLE UNE-ENTRY.

10. BellSouth's Louisiana non-loop rates also are substantially inflated above TELRIC levels. BellSouth's Louisiana total non-loop charges are 81% higher than those it recently proposed in Georgia, even though, according to the Commission's Synthesis Cost Model, Louisiana's non-loop costs are only 19% higher than in Georgia. *See Exhibits A(1-3).*

announcing planned deployment of next-generation switching technology "at a fraction of the cost of traditional equipment").

⁴ A similar analysis shows that BellSouth's loop costs have also declined during the past few years. A simple analysis of BellSouth's Georgia net cable and wire ("C&W") investments and its access lines reveals that net C&W investments declined significantly on a per-line basis between 1992 and 2000. In fact, between 1996 and 2000, net C&W investment grew much more slowly than access lines, resulting in an overall decline in net investment per line of 59% from 1996 to 2002. When circuit equipment is reflected in conjunction with the C&W accounts, the decline is 50%. The overall loop decline should be between these two numbers. Because BellSouth's UNE loop rates do not reflect these decreased costs, those rates are not appropriate forward-looking cost-based rates. *See Exhibit C-2 and C-3 (attached).*

As I demonstrated in my initial declaration (¶¶ 11-27 & Exhibits 6-14), these overstated UNE rates foreclose profitable entry in Louisiana. Based on more recently obtained data, it is clear that BellSouth's rates continue to foreclose residential UNE-P entry in Louisiana.

11. The viability of a UNE-based offering – that is, whether it makes sense for AT&T (or any other entrant) to commit its shareholders' capital to that enterprise – turns on the same type of analysis as any other investment decision. Capital is scarce and must be devoted to its highest-valued uses. Thus, a carrier considering whether to enter the local services business in a state (or to continue to participate in that business) must determine whether revenues attributable to the service will exceed the costs of providing the service by an amount sufficient to generate a return that is commensurate with the expectations of investors concerning risks and returns and with competing uses for the capital.

12. There are essentially three steps to this analysis: (1) identifying and estimating each of the costs of providing the service, (2) identifying and estimating each of the revenue opportunities that will be generated by providing the service, and (3) deriving from these estimated "cash flows" some standard financial measure that allows the investment opportunity to be assessed (and compared to alternative investment opportunities).

13. Because telecommunications carriers are subject to numerous reporting requirements, obtaining the inputs necessary to conduct my analysis was straightforward. Carrier-specific data, including retail local service prices, UNE prices, and access prices are largely publicly reported and directly verifiable. I am confident, therefore, that the following analysis paints an accurate picture of the barrier that BellSouth's UNE prices in Louisiana pose to residential competition in that state.

14. The remainder of this section is organized as follows. First, I describe the costs associated with a residential UNE-Platform offering in Louisiana. Second, I describe the revenues that are available to carriers serving customers in Louisiana. Third, I translate these cash flows into margins by looking at the difference in a Louisiana entrant carrier's revenues and costs – a type of financial measure commonly used by businesses to make investment decisions. This margin analysis shows that profitable UNE-Platform-based offerings cannot be undertaken by competitive carriers in Louisiana at the rates contained in BellSouth's application. Exhibits D-1 through D-9 to my declaration summarize the results of my cost, revenue and margin analyses and show how those values were computed.

15. **Costs.** There are two basic categories of costs associated with UNE-Platform-based services: (1) "connectivity" costs (*i.e.*, the costs associated with purchasing the necessary network elements from the incumbent), and (2) a carrier's own internal costs of running a local telephone service business (*e.g.*, developing, maintaining and operating computer support systems, as well as marketing, customer care, and administration). My analysis focuses primarily on the former category of costs, which are readily identifiable and verifiable.

16. The rates for UNE loops are \$11.77/month in Zone 1, \$22.39 in Zone 2, and \$48.26 in Zone 3. For UNE switch ports, new entrants pay \$1.36/month in all zones. These and the other relevant BellSouth Louisiana rates are listed in Exhibit D-2.

17. Most other network local service rates are incurred based on usage (*e.g.*, a per minute basis or a per record basis). Therefore, it is necessary to multiply the usage rates by the corresponding usage volumes to estimate the monthly per line cost that will be incurred by carriers for those elements. BellSouth's local usage volumes are available from its annual "dial equipment minutes" ("DEM") submissions to NECA and ARMIS (the same data that is used in

the Commission's Synthesis Cost Model). The most recent submission contains 2000 data. I used 1998 through 2000 NECA and ARMIS data to project BellSouth's 2002 DEM. *See* Exhibit D-3. Because the NECA and ARMIS data do not identify residential-specific toll-related minutes, I used residential toll volumes per line derived from the TNS Telecoms (formerly PNR) Bill Harvesting market research. These toll volumes and the calculations for local usage are detailed in Exhibit D-3 (attached).⁵

18. For each category of usage (*i.e.*, local, intraLATA toll, intrastate InterLATA, and interstate InterLATA) particular network architecture assumptions must be made. Specifically, local usage for each category must be apportioned between "Intraswitch" local volumes (where the calling and called parties are served by the same switch) and "Interswitch" local volumes (where the calling and called parties are served by different switches). My analysis assumes that 35 percent of local volumes in BellSouth's network are Intraswitch and that the remaining 65 percent of local volumes are Interswitch. *See* Exhibit D-4.⁶ The 65 percent of local volumes that are Interswitch must be further divided among those that are routed directly between two switches and those that are routed via a tandem switch. My analysis uses the same proportions for this traffic as the Commission's Synthesis Cost Model. Specifically, according to the

⁵ Because Louisiana has not adopted a bill-and-keep mechanism, the LEC to CLEC terminating local traffic is assumed to net out to zero, and only *originating* local traffic and its corresponding terminating traffic are used to compute costs. *See* Exhibit D-4. Specifically, UNE purchasers must pay switching, transport and related usage charges for access-related usage whether a call is originated or terminated by their customer, and the assumption is that the customer receives as much access traffic as he or she originates. For IntraLATA toll traffic, every originating minute is associated with a terminating minute to another customer (for simplicity assumed to be served by the same ILEC) in the ILEC's service area.

⁶ Although the Commission's Synthesis Model recognizes that about 50 percent of local calls would be Intraswitch calls in an efficiently designed network with properly sized switches, the relevant figure for a new entrant contemplating entry is what it will actually pay BellSouth. Because BellSouth's existing network is not efficiently designed and sometimes uses two

Commission's Synthesis Cost Model, approximately 2 percent of local Interswitch minutes and 20 percent of IntraLATA toll and InterLATA minutes are tandem-routed. *See* Exhibit D-4.

19. After the usage minutes have been apportioned, those minutes are multiplied by BellSouth's rates for each of those elements. These calculations are shown in Exhibit D-5, which shows that total monthly usage charge per line is \$5.62. *See id.*

20. In addition, as shown in Exhibit D-6, BellSouth's Louisiana DUF charges amount to \$1.02/month. This figure is a function of the number of ADUF and ODUF records multiplied by a set of per record rates. *See Ex Parte* Letter from Christopher T. Shenk, AT&T, to Magalie Roman Salas, FCC Secretary, CC Docket No. 01-277 (filed Nov. 2, 2001) (providing detailed explanation of DUF charge computations).

21. In total, the average recurring monthly connectivity costs (loop plus usage plus DUF) incurred by a CLEC to serve a Louisiana customer is \$24.97. This is an average of the monthly connectivity costs for Zone 1 (\$19.77), Zone 2 (\$30.39), and Zone 3 (\$56.26) weighted by the relative number of estimated residence lines in each zone served by BellSouth. *See* Exhibit D-1. When the BellSouth Louisiana non-recurring charges (including OSS charges) of \$41.83 for new customers (assumed to be 10% of CLEC orders)⁷ and \$3.08 for migration (assumed to be 90% of CLEC orders) are added, the additional cost for the non-recurring charges is \$0.19. Therefore, the average total monthly platform cost in Louisiana is \$25.16. *See* Exhibit D-1.

22. **Revenues.** The BellSouth local service rates that UNE-Platform-based providers can obtain for their services are effectively capped by the retail rates charged by BellSouth. If

switches where one would be more efficient, the 35 percent figure must be used to determine expected connectivity costs that will be billed by BellSouth to the competing carrier.

new entrants attempt to charge higher rates than BellSouth, these new entrants would be unable to attract customers. BellSouth local service rates are readily available and verifiable from many sources, including CCMI. Mapping the local rates to wire centers and mapping the wire centers to UNE zones results in CCMI rates that range from \$11.36/month in Zone 3 to \$12.57/month in Zone 1.⁸

23. There are, of course, other incremental revenue opportunities available to new entrants to local services. A local service provider can expect to sell vertical features to many customers. The rates that new entrants are likely to obtain for these services can be determined from BellSouth's tariff rates for these services. Based upon average of 4Q00 to 3Q01 TNS Telecoms Bill Harvest market research data, a new entrant in Louisiana can expect, on average, to receive about \$9.60/month in vertical feature revenue. The federal Subscriber Line Charge brings in an additional \$5.00/month/line. Total expected customer revenues, therefore, average about \$26.89/line/month. *See Exhibit D-1.*

24. A UNE-Platform-based provider also earns access revenues (or attains savings) for originating and terminating long-distance calls. This revenue may either be explicit (when a CLEC charges an independent IXC, or implicit if the CLEC acts as its own IXC). To estimate these access revenues it is necessary to multiply expected toll minutes (derived from the TNS Telecoms Bill Harvest data) by the relevant access charges that AT&T can replace with UNEs.⁹

⁷ Because our experience is that a much larger percent of orders incur the more expensive new order charge, the 10% assumption is extremely conservative.

⁸ These values reflect the Flat Rate Monthly Individual Line Charge as reported by CCMI Rate Information, BellSouth Local Exchange Rates (effective October 3, 2000) and are listed in Exhibit D-8 (attached).

⁹ Dedicated transport access charges are not included because AT&T does not avoid these access charges through its acquisition of a UNE-P local customer.

My calculations show that a UNE-Platform entrant's estimated access charge revenues are \$0.90/line/month. *See* Exhibit D-7.

25. Summing all of these revenues, AT&T (or another entrant) could expect to receive \$27.80/line/month from residential UNE-based service in BellSouth (or between \$26.87 and \$28.08/line/month, depending upon the density zone).

26. **Margin.** There are many standard financial measures for assessing the profitability of investing (or continuing) in a line of business. The margin per line can be computed by comparing a carrier's expected costs with its expected revenues for each line. A "gross" UNE-P margin can be determined by subtracting expected direct connectivity costs from expected revenues. A "net" UNE-P margin can only be determined by subtracting all expected costs (*e.g.*, marketing, customer service, billing, order processing, and other operating activities) from expected revenues, which usually amount to over \$10 per line. *See* Bickley Decl., ¶¶ 1-8.

27. This margin analysis for Louisiana shows that residential gross margins in Louisiana are *negative* in two of the three UNE zones in Louisiana (negative \$3.38 in zone 2 and negative \$29.58 in zone 3). *See id.* Thus, residential UNE-based entry is not possible in Louisiana. Even though there is a positive gross margin in zone 1 (\$8.12), that amount is not sufficient to cover any potential entrant's internal costs of operating a local telephone business, which, as noted above, typically exceeds \$10. In any case, statewide gross margins for Louisiana are a paltry \$2.63. Thus statewide residential UNE-based entry would not be profitable in Louisiana. *See id.*

28. BellSouth has criticized my margin analysis because it does not account for IntraLATA toll revenues. *See* Ruscilli/Cox Decl. ¶ 20. But IntraLATA services can be provided by carriers – and in many cases are already provided by carriers – without entering Louisiana's

local telephone markets. Accordingly, revenues from those services are not properly attributable to local telephone entry and are not relevant to the determination of whether revenues associated with entry into the local telephone market would exceed the costs of that entry by a sufficient margin to make local entry economically viable.

29. In any event, this issue is moot. Adding IntraLATA toll revenues to the Louisiana margin analysis would not change the fact that statewide margins in Louisiana are negative. Accounting for potential IntraLATA toll revenues that may be available to new entrants in Louisiana would increase the margin by only ***. Adding that amount to my margin analysis still results in *negative* margins in UNE zones 2 and 3, and a state-wide average margin of only ***. ***, which is still not remotely sufficient to cover the more than \$10.00 of internal costs.

30. BellSouth also asserts that my margin analysis fails to account for interstate access revenues. That is wrong. As shown in Exhibit D-7, my analysis accounts for the \$0.34 of interstate access revenues that new entrants in Louisiana can expect to obtain in the residential market.

31. Lastly, BellSouth points to a margin analysis conducted by another AT&T witness (Mr. Gillan) in another proceeding which shows greater margins than I find here. BellSouth thus accuses me of “manipulating” data. *See Ruscilli/Cox* ¶ 20-21. That accusation is spurious. BellSouth’s comparison of Mr. Gillan’s and my margin analyses is inapposite.

32. The analysis conducted by Mr. Gillan was aimed at determining the margins that are available to *incumbent LECs*. Accordingly, Mr. Gillan included in his analysis all revenues that are available to LECs. By contrast, my analysis aims at identifying incremental margins that are available to competitive LECs that choose to enter Louisiana. Therefore, my analysis

focuses only on those revenues that become available to competitive LECs upon entry into Louisiana.

33. Another important reason that the results of my margin analysis differ from those of Mr. Gillan's analysis is that Mr. Gillan's margin analysis is based on 1993/1994 data, whereas my analysis is based on current data. Because access rates have fallen by more than 500% since 1994,¹⁰ it is not surprising that the access revenues reflected in Mr. Gillan's margin analysis are higher than those reflected in my margin analysis.

34. For all of these reasons, BellSouth's criticisms of my margin analysis are misplaced and should be rejected.

IV. RESALE AND UNE-L ENTRY IN LOUISIANA ARE NOT FEASIBLE ENTRY ALTERNATIVES FOR NEW ENTRANTS.

35. BellSouth suggests that the fact that its UNE-P rates preclude residential entry is irrelevant because potential competitors have other modes of entry available to them. *See* BellSouth Supp. App. at 40. According to BellSouth, even without the UNE-platform, it would still be economically feasible for entrants to provide local residential services in Louisiana through resale or a UNE-loop facilities-based approach. BellSouth is again wrong.

36. *Resale.* In Louisiana, entrants can purchase residential lines from BellSouth at a 21% discount from the retail rates for those lines. The average retail revenue for a line in Louisiana is about \$21.89. That means that a local entrant in Louisiana can purchase those lines for resale for \$17.36. The gross margin that is available to local residential resale entrants in Louisiana is the difference between the retail rate for that line and the discounted rate for that

¹⁰ According to Table 1.2 of the FCC trends report, per CM access rates in 1994 averaged 6.89 cents, whereas the most recent CM access rate is 1.71 cents per CM.

line, *i.e.*, $\$21.89 - \$17.36 = \$4.54$.¹¹ That margin does not even come close to covering the entrant's \$10.00+ internal costs of providing those services. Thus, resale is not an economically feasible alternative to UNE-P for provision of local exchange services to residential customers.

37. *UNE-Loop*. The only facilities-based alternative to UNE-P in Louisiana would be a UNE-loop strategy in which entrants attempt to provide residential service by leasing unbundled loops from BellSouth and combining them with the entrants' own switches to provide local residential service. The costs and administrative difficulties of such an entry strategy, however, make UNE-loop entry economically infeasible for new entrants pursuing typical residential customers. In its *UNE Remand Order* (§§ 254-258),¹² the Commission itself recognized that entrants could not rationally invest in switches until they have used UNE-P to build up a customer base. As discussed above, Louisiana entrants cannot build up such a customer base because BellSouth's Louisiana UNE rates preclude profitable UNE-platform entry.

38. More fundamentally, entrants could not rationally enter Louisiana with a UNE-loop based strategy because the costs of provisioning UNE-loop and connecting them to entrants' switches make mass-market residential UNE-loop entry economically infeasible.¹³ BellSouth has not deployed a technology that allows customers to change electronically from one local exchange carrier (*e.g.*, BellSouth) to another local exchange carrier (*e.g.*, a new entrant) at no or minimal cost. Instead, the change requires entrants to purchase a "hot cut." Even if,

¹¹ Unlike UNE-P entrants, resellers do not receive SLC revenues and also cannot generate access revenues (or savings) from exchange access service.

¹² *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order, 15 FCC Rcd. 3696, ¶ 260 (1999); *see also Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Comments of AT&T Corp., Affidavit of C. Michael Pfau, §§ 11-23 CC Docket No. 96-98 (filed May 1999).

¹³ *See id.*

contrary to prior experience, hot cuts could be performed in mass-market volumes and were performed in a timely manner so they did not cause outages for substantial numbers of customers, the hot cut charges for each new customer, combined with additional collocation and transport costs that the ILEC does not incur, make a UNE-loop strategy, at best, only economic for business customers, not for residential customers.¹⁴ That is especially true because the substantial turn-over (or “churn”) rate associated with the provisioning of competitive local residential services will likely make it impossible for carriers to recover their up-front costs of providing UNE-loop services (including hot cuts) given the expected retention period of residential customers. Thus, AT&T has not used UNE-loop to provide basic local residential service to customers anywhere in the country. Beyond that, because BellSouth and other BOCs have been unable effectively to provision hot-cuts, even in relatively small quantities, in a timely manner and without causing outages for substantial numbers of customers, AT&T generally no longer initially serves even new small business customers with UNE-L. Instead, it initially serves most new small business customers through UNE-P – and is seeking to develop procedures in which incumbents will move large groups of AT&T customers from the incumbent’s switch to an AT&T switch on a project basis.¹⁵

V. CONCLUSION

39. For the foregoing reasons, it is clear that BellSouth’s Georgia and Louisiana rates are significantly overstated and create a price squeeze that precludes competitive entry.

¹⁴ *See id.*

¹⁵ *See, e.g., Performance Measurements and Standards for Unbundled Network Elements and Interconnection*, AT&T Comments, CC Docket No. 01-318, Szczepanski Decl. (filed January 22, 2002).

VERIFICATION PAGE

I, Michael Lieberman, declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in cursive script, appearing to read "Michael Lieberman", written over a horizontal line.

Michael Lieberman

Executed on March 4, 2002.

Cost Adjusted Total Non-Loop Charges

FCC Volumes

Company	State	Total Non-Loop Charge per line per month	BS GA Rate Relative to GA 2/19 Rates	BS LA Rate Relative to GA 2/19 Rates
BS	GA	\$6.83		
BS	LA	\$6.83		
GA Generic (no feature additive)				
BS		\$3.77	81%	81%
BS	GA Generic	\$6.05	13%	13%

Company	State	"UNE" SYN MOD Non-Loop Cost	BS GA Cost Relative to GA 2/19 Rates	BS LA Cost Relative to GA 2/19 Rates
BS	GA	\$ 3.65		
BS	LA	\$ 4.36		
GA Generic (no feature additive)				
BS		\$ 3.65	0%	19%
BS	GA Generic	\$ 3.65	0%	19%

Company	State		BS GA Cost Adjusted Relative Non-Loop Rates vs GA 2/19 Rates	BS LA Cost Adjusted Relative Non-Loop Rates vs GA 2/19 Rates
VZ	GA			
VZ	LA			
GA Generic (no feature additive)				
BS			81%	52%
BS	GA Generic		13%	-5%

GA and LA_Cost per line_UNE Adjusted from FCC SynMod

	Per Line Cost	
	GA	LA
End office switching + Signaling		
End office switching	\$ 3.09	\$ 3.20
Signaling network elements	\$ 0.11	\$ 0.18
Total	\$ 3.21	\$ 3.38
Transport Network Elements		
Common Transport	\$ 0.37	\$ 0.89
Tandem switch	\$ 0.07	\$ 0.09
Total	\$ 0.44	\$ 0.98
UNE Platform_Non Loop	\$ 3.65	\$ 4.36

Non-Loop Per-Line Charge Comparison

Non-Loop Comparison, using FCC volumes as standard

Element	GA	GA - Generic	LA
1 Local Switching Rate, per MOU			
Originating	\$0.001633	\$0.000791	\$0.001868
Terminating	0.001633	0.000791	0.001868
2			
3 Signaling per Message	Included in Switching rate	Included in Switching rate	Included in Switching rate
4 Common Trunk Port per MOU	\$0.000156	\$0.000158	\$0.000180
Originating	\$2.26	\$1.10	\$2.59
Terminating	\$1.77	\$0.86	\$2.03
Common Trunk Port+Signaling	\$0.34	\$0.34	\$0.39
5 Total Switching Usage Cost, per line per month	\$4.37	\$2.30	\$5.00
6 Line Side Port rate, per line per month	\$1.79	\$3.48	\$1.36
Total Switching Charge (excl DUF), per line per month	\$6.16	\$5.78	\$6.36
\$3.50			
Total Non-Loop Usage Charge, per line per month	\$5.04	\$2.57	\$5.47
Total Non-Loop Charge (excl DUF), per line per month	\$6.83	\$6.05	\$6.83
Less Feature Port Additive	\$6.83	\$3.77	\$6.83

Volume Profile	Intra-Switch	Inter-Switch
Originating	2296	7894
Terminating	300	1085
0	0	1085

Notes/Sources:

- 1 Statewide average originating Local switching minutes of use rate exclusive of EO trunk port rate.
- 2 Statewide average terminating Local switching minutes of use rate exclusive of EO trunk port rate.
- 3 Signaling rate per message --- not a separate UNE-P rate element for these companies.
- 4 End Office Common Trunk Port rate per MOU --- a separate rate element for each of these companies.
- 5 Per table above, uses usage assumptions drawn from FCC PA 271 Order
- 6 Line port rate appropriate for UNE-P.

Comparison of DUF Cost

Calculated at Georgia Volumes

Compan y	State	DUF Cost, per line per month	GA Relative to other 271 states
BS	GA	\$ 2.96	0%
BS	LA *	\$ 1.37	116%
BS	GA Generic	\$ 1.40	112%

* The LA DUF charge at LA volumes is \$1.02

Time Trend Analysis of Net Switch Investment per DEM

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2000 vs 1992 Overall Growth	2000 vs 1992 CAGR	2000 vs 1996 Overall Growth	Estimate growth 1996 to 2002
BS - GA													
Total DEM (Millions)	69,981	17,101	78,898	85,817	97,424	114,596	133,416	157,849	176,508	152%	12.3%	81%	93%
Total CO Switch EOP Gross Plant (\$M)	1,197,726	1,241,072	1,306,409	1,313,873	1,446,345	1,521,779	1,599,624	1,675,796	1,798,395	28%	3.2%	23%	26%
Est Total CO Switch EOP Net Plant (\$M)	786,955	791,007	813,210	782,493	823,392	854,038	886,130	930,395	1,009,629	-49%	-8.1%	-32%	-40%
Net Switch Inv per DEM	\$ 0.01125	\$ 0.04626	\$ 0.01031	\$ 0.00912	\$ 0.00845	\$ 0.00745	\$ 0.00664	\$ 0.00589	\$ 0.00572				
BS - LA													
Total DEM (Millions)	45,164	10,694	47,837	50,975	54,013	59,510	69,097	78,174	86,097	91%	8.4%	59%	77%
Total CO Switch EOP Gross Plant (\$M)	748,836	774,790	787,304	791,133	824,913	865,753	903,062	929,840	959,217	9%	1.1%	15%	17%
Est Total CO Switch EOP Net Plant (\$M)	492,016	493,819	490,079	471,169	469,616	485,869	500,262	516,243	538,510	-57%	-9.9%	-37%	-56%
Net Switch Inv per DEM	\$ 0.00703	\$ 0.02888	\$ 0.00621	\$ 0.00549	\$ 0.00482	\$ 0.00424	\$ 0.00375	\$ 0.00327	\$ 0.00305				
BS - Total													
Total DEM (Millions)	363,596	98,596	450,625	481,689	524,847	603,930	707,787	822,787	914,302	159%	12.6%	74%	101%
Total CO Switch EOP Gross Plant (\$M)	6,997,491	7,250,458	7,425,551	7,512,966	7,974,758	8,364,798	8,803,392	9,145,928	9,702,334	18%	2.1%	20%	24%
CO Switch Depreciation Reserve	2,399,855	2,629,319	2,803,313	3,038,526	3,434,796	3,670,390	3,926,651	4,068,147	4,255,392				
CO Switch Reserve Ratio	34%	36%	38%	40%	43%	44%	45%	44%	44%				
Total CO Switch EOP Net Plant (\$M)	4,597,636	4,621,139	4,622,238	4,474,440	4,539,962	4,694,408	4,876,741	5,077,781	5,446,942	-54%	-9.3%	-31%	-49%
Net Switch Inv per DEM	\$ 0.01130	\$ 0.0469	\$ 0.0103	\$ 0.0093	\$ 0.0087	\$ 0.0078	\$ 0.0069	\$ 0.0062	\$ 0.0060				

Source: GA and LA data from ARMIS 43-03 and 43-08, BS data is from ARMIS 43-02 and 43-08

Time Trend Analysis of Cable and Wire Net Investment per Line

											2000 vs 1992	2000 vs 1992	2000 vs 1996	Estimate
											Overall Growth	CAGR	Overall Growth	growth 1996 to 2002
BS - GA														
Total Access Lines	1992	1993	1994	1995	1996	1997	1998	1999	2000					
Cable & Wire Facilities (eoy)	3,213,802	3,389,810	3,622,315	3,917,484	4,343,728	4,611,974	5,375,278	6,301,724	7,566,846	135%				
Estimated Net C&W Plant	2,940,760	3,095,390	3,238,754	3,411,702	3,579,643	3,723,327	3,899,962	4,092,214	4,408,873	3%				
	1,689,888	1,717,484	1,726,813	1,740,478	1,739,592	1,712,713	1,693,947	1,679,652	1,740,292					
Net C&W Plant per tot line	\$ 525.82	\$ 506.66	\$ 476.72	\$ 444.28	\$ 400.48	\$ 371.36	\$ 315.14	\$ 266.54	\$ 229.99	-56%	-8.8%	-4.3%	-59%	
BS - LA														
Total Access Lines	1992	1993	1994	1995	1996	1997	1998	1999	2000					
Cable & Wire Facilities (eoy)	1,945,617	2,021,210	2,115,896	2,196,258	2,305,079	2,415,721	2,602,249	2,785,700	3,216,913	65%				
Estimated Net C&W Plant	2,019,748	2,077,516	2,125,614	2,182,765	2,231,881	2,286,178	2,340,710	2,393,497	2,459,223	-16%				
	1,160,635	1,152,714	1,133,318	1,113,537	1,084,623	1,051,631	1,016,686	982,412	970,717					
Net C&W Plant per tot line	\$ 596.54	\$ 570.31	\$ 535.62	\$ 507.02	\$ 470.54	\$ 435.33	\$ 390.70	\$ 352.66	\$ 301.75	-49%	-7.3%	-3.6%	-50%	
BS - Total														
Total Access Lines	1992	1993	1994	1995	1996	1997	1998	1999	2000					
Cable & Wire Facilities (eoy)	19,209,116	20,127,546	21,251,808	22,595,392	24,493,048	25,779,614	28,452,496	31,443,504	37,168,380	93%				
Accumulated Depreciation	17,784,490	18,560,260	19,255,148	20,057,012	20,836,040	21,620,126	22,478,484	23,311,660	24,470,990					
Net C&W Plant	7,564,751	8,262,061	8,988,839	9,824,936	10,710,392	11,674,969	12,714,952	13,743,375	14,811,681	-5%				
C&W Depreciation Reserve	10,219,739	10,298,199	10,266,309	10,232,076	10,125,648	9,945,157	9,763,512	9,568,285	9,659,309					
	43%	45%	47%	49%	51%	54%	57%	59%	61%					
Net C&W Plant per Total Line	\$ 532.03	\$ 511.65	\$ 483.08	\$ 452.84	\$ 413.41	\$ 385.78	\$ 343.15	\$ 304.30	\$ 259.88	-51%	-7.7%	-3.7%	-52%	

Source: GA and LA data from ARMIS 43-03 and 43-08, BS data is from ARMIS 43-02 and 43-08

Time Trend Analysis of Cable and Wire plus Circuit Equipment Net Investment per Line

											2000 vs 1992	2000 vs 1992	2000 vs 1996	Estimate
	1992	1993	1994	1995	1996	1997	1998	1999	2000		Overall Growth	2000 vs 1992 CAGR	Overall Growth	1996 to 2002
BS - GA														
Total Access Lines	3,213,802	3,389,810	3,622,315	3,917,484	4,343,728	4,611,974	5,375,278	6,301,724	7,566,846		Overall Growth	135%		
Cable & Wire Facilities (eoy)	2,940,760	3,095,390	3,238,754	3,411,702	3,579,843	3,723,927	3,899,962	4,092,214	4,408,873					
Estimated Net C&W Plant	1,689,888	1,771,484	1,726,813	1,740,478	1,739,592	1,712,713	1,693,947	1,678,652	1,740,292		3%			
Circuit Equipment	1,128,912	1,298,217	1,389,931	1,528,632	1,739,992	1,942,628	2,164,875	2,410,171	2,813,750					
Net Circuit Equipment Investment	659,720	682,151	703,760	739,108	786,584	822,255	854,328	917,725	1,067,352					
Net C&W + Circuit Inv per tot line	\$ 731.10	\$ 707.90	\$ 671.00	\$ 632.95	\$ 581.57	\$ 549.65	\$ 474.07	\$ 412.17	\$ 371.05		-49%	-7.3%	-36%	-50%
BS - LA														
Total Access Lines	1,945,617	2,021,210	2,115,896	2,196,258	2,305,079	2,415,721	2,602,249	2,785,700	3,216,913		65%			
Cable & Wire Facilities (eoy)	2,019,748	2,077,516	2,125,614	2,182,765	2,231,881	2,286,178	2,340,710	2,393,497	2,459,223		-16%			
Estimated Net C&W Plant	1,160,635	1,152,714	1,133,318	1,113,537	1,084,623	1,051,631	1,016,886	982,412	970,717					
Circuit Equipment	645,063	676,279	714,476	772,545	828,274	885,715	940,277	1,004,570	1,110,592					
Net Circuit Equipment Investment	376,965	372,571	367,040	373,533	374,431	374,896	371,063	382,512	421,286					
Net C&W + Circuit Inv per tot line	\$ 790.29	\$ 754.64	\$ 709.09	\$ 677.09	\$ 632.97	\$ 590.52	\$ 533.29	\$ 489.98	\$ 432.71		-45%	-6.5%	-32%	-44%
BS - Total														
Total Access Lines	19,209,116	20,127,546	21,251,808	22,595,392	24,483,048	25,779,614	28,452,496	31,443,504	37,168,380		93%			
Cable & Wire Facilities (eoy)	17,784,490	18,560,260	19,255,148	20,057,012	20,836,040	21,620,126	22,478,464	23,311,660	24,470,990					
Accumulated Depreciation	7,584,751	8,282,061	8,988,839	9,824,936	10,710,392	11,674,869	12,714,952	13,743,375	14,811,681					
Net C&W Plant	10,219,739	10,298,199	10,266,309	10,232,076	10,125,648	9,945,157	9,763,512	9,568,285	9,659,309		-5%			
C&W Depreciation Reserve	43%	45%	47%	49%	51%	54%	57%	59%	61%					
Circuit Equipment	6,584,061	7,071,147	7,669,117	8,300,929	9,177,316	10,064,521	10,993,265	11,928,394	13,505,226					
Acc. Dep. Circuit Equipment	2,728,120	3,175,554	3,729,343	4,287,354	5,028,601	5,804,518	6,654,975	7,386,398	8,382,231					
Net Circuit Equipment Investment	3,895,941	3,895,593	3,939,774	4,013,575	4,148,715	4,260,003	4,338,290	4,541,996	5,122,995					
C&W Depreciation Reserve	42%	45%	49%	52%	55%	58%	61%	62%	62%					
Net C&W + Circuit Equipment Inv per Total Line	\$ 731.72	\$ 705.19	\$ 668.46	\$ 630.47	\$ 582.79	\$ 551.02	\$ 495.63	\$ 448.75	\$ 387.71		-46%	-6.5%	-32%	-44%

Source: GA and LA data from ARMS 43-03 and 43-08. BS data is from ARMS 43-02 and 43-08

Connectivity Margin for Bell South Louisiana

COSTS	Statewide			
	Average	Zone 1	Zone 2	Zone 3
Zone weights		67%	26%	7%
Loop	\$16.98	\$11.77	\$22.39	\$48.26
Port	\$1.36	\$1.36	\$1.36	\$1.36
Usage	\$5.62	\$5.62	\$5.62	\$5.62
DUF	\$1.02	\$1.02	\$1.02	\$1.02
Platform - Recurring Cost	\$24.97	\$19.77	\$30.39	\$56.26
Amortization of NRC Fee	\$0.19	\$0.19	\$0.19	\$0.19
Total Platform (w/NRC)	\$25.16	\$19.96	\$30.58	\$56.45

REVENUES	RES @ SWBT			
Basic Local Svc	Zone 1	Zone 2	Zone 3	Basic Local Svc -Statewide
	\$12.57	\$11.79	\$11.36	\$12.29

Other Revenue Sources

Features	\$9.60
Sub. Line Chg.	\$5.00
Access	\$0.90

Total Revenue

Zone 1	\$28.08
Zone 2	\$27.30
Zone 3	\$26.87
Total Revenue -Statewide	\$27.80

MARGINS RES @ SWBT

	\$/line	%	0.67
Zone 1	\$8.12	29%	\$8.79
Zone 2	(\$3.28)	-12%	(\$2.61)
Zone 3	(\$29.58)	-110%	(\$28.91)
Residence Statewide	\$2.63	9%	\$3.30

BellSouth Louisiana

UNE-P: Current UNE Rates

09/21/01 Order Dkt# U24714

By Density Zone	Urban 67%	Suburban 26%	Rural 7%	Statewide 100%
A. Residence Line Distribution	\$11.77	\$22.39	\$48.26	\$16.98
B. Loop	\$1.36	\$1.36	\$1.36	\$1.36
C. Analog Line Side Port				
D. EO Switching				\$ 0.001868
E. EO Switch Port				\$ 0.000180
F. Common Transport - Per Mile, Per MOU				\$ 0.000003
G. Common Transport - Fac. Term, Per MOU				\$ 0.000375
H. Tandem switching				\$ 0.000107
I. Tandem switching trunk port				\$ 0.000222
J. ADUF - Message Processing, per message				\$ 0.00182500
K. ADUF - Data Transmission(Connect:Direct), per message				\$ 0.00012147
L. ODUF - Recording, per Message				\$ 0.00001170
M. ODUF - Message Processing, per message				\$ 0.00244600
N. ODUF - Data Transmission(Connect:Direct). Per message				\$ 0.00010122

* DUF rates revised as of BST SGAT Revision 12/06/01

Residential Toll Conversation MOU Per line Per Month

Average Residential Toll Minutes 4Q00 - 3Q01

Verizon		Louisiana	
Intra-Lata	Intra-State	Inter-State	21.6
Inter-Lata	Inter-State	Intra-State	-
	Inter-State	Inter-State	18.7
			62.0

Source: TNS ReQuest Market Monitor and Bill Harvesting Study

ARMIS-Based Local DEM Per line Per Month

	2000 Per Line Per Month Local DEM *	Total DEM per line CAGR: 2000 vs 1998	Estimated 2002 Per Line Per Month Local DEM
2-Way DEM per	2,336	11.4%	2,898
1-Way DEM per	1,168		1,449

* As local DEM was not yet reported for 2000, the 1999 split of intrastate between toll and local was used.

Bell South Louisiana

UNE Unit Cost Development

	Local		Intrastate InterLATA		Interstate InterLATA	
	Intrastate local		Up to IXC POP		Interstate InterLATA	
	Intrastate local	Direct	Intrastate Toll Direct	Intrastate Toll Tandem	Interstate Toll Direct	Interstate Toll Tandem
EO Switching	1	1	1	1	1	1
EO Switch Port						
Common Xport - Blended						
Tandem switching						
Term. EO Switching						
Term. EO Switch Port						
Tandem switching trunk port						
MOU	\$ 0.0018680	\$ 0.0045028	\$ 0.0018680	\$ 0.0027835	\$ 0.0018680	\$ 0.0027835
Cost per Line	507	923	30	7	99	25
	\$ 0.947	\$ 4.156	\$ 0.056	\$ 0.021	\$ 0.185	\$ 0.069

MOU Assumptions

	Outbound	Inbound	total	intraoffice	tandem
Local	1,449	-	1,449	35%	2%
IntralATA Toll	22	22	43	0%	20%
Intrastate InterLATA	19	19	37	0%	20%
Interstate InterLATA	62	62	124	0%	20%
Total	1,551	102	1,654		

UNE Usage Cost Per Line by Service

Bell South_Louisiana			
	% MOU	UNE Cost	Cost per Line
Local			
Intrastwitch local	35%	\$ 0.001868	
Interswitch direct local	64%	\$ 0.004503	
Interswitch tandem local	1%	\$ 0.005054	
		\$ 0.003588	5.20
IntraLATA Toll			
Up to IXC POP			
intraLATA toll direct	80%	\$ 0.001868	
intraLATA toll tandem	20%	\$ 0.002784	
		\$ 0.002051	0.09
Intrastate InterLATA			
interLATA toll direct	80%	\$ 0.001868	
interLATA toll tandem	20%	\$ 0.002784	
		\$ 0.002051	0.08
Interstate InterLATA			
interLATA toll direct	80%	\$ 0.001868	
interLATA toll tandem	20%	\$ 0.002784	
		\$ 0.002051	0.25
Total Usage Per Line			\$ 5.62

Bell South_Louisiana DUF Charges

Daily Usage Feed (DUF)	LA		
	Rates	MOU/Records	
ADUF - Message Processing, per message	\$0.001825		
ADUF - Data Transmission(Connect:Direct), per message	\$0.000121	32	\$0.036
ODUF - Recording, per Message	\$0.000012	162	\$0.00195
ODUF - Message Processing, per message	\$0.002446		
ODUF - Data Transmission(Connect:Direct), Per message	\$0.000101	373	\$0.035
		1492	\$0.003
DUF Total			\$1.02

DUF rates revised as of BST SGAT Revision 12/06/01

Bell South Louisiana

ACCESS REVENUE CALCULATION

	MOUs	RATE	Access Revenue per Line
Interstate Access	124	\$ 0.00276	\$0.34
Intrastate Access	<u>37</u>	\$ 0.00697	<u>\$0.26</u>
Total InterLATA	162		\$0.60
IntraLATA Toll	43	\$ 0.00697	\$0.30
Total			\$0.90

WITHOUT DEDICATED TRANSPORT

INTERSTATE		INTRASTATE	
ORIGINATING	TERMINATING	ORIGINATING	TERMINATING
0.002756	0.002756	0.006968	0.006968

Bellsouth LA_Basic Local Rates

Local Rate Zones	1FR Rate	# of Wire Centers	# of Lines	# of Exchanges
1	\$ 10.97	84	180,432	79
2	\$ 11.18	12	42,986	11
3	\$ 11.39	8	52,553	8
4	\$ 11.60	13	51,111	12
5	\$ 11.81	12	51,318	7
6	\$ 12.02	5	39,168	5
7	\$ 12.23	7	68,649	7
8	\$ 12.43	8	75,954	8
9	\$ 12.64	79	1,120,321	38
Totals/Avg. \$	12.29	228	1,682,491	175

Local Rate Effective Date 10/3/2000

Average Monthly Feature Revenue Per Bill	\$ 9.60
<i>Source: TNS Bill Harvesting Study, 4Q00 - 3Q01</i>	

BellSouth LA_Basic Local and UNE Loop Rates by UNE Zone

UNE Rate Zone	Res Lines	UNE Loop Price	Average Local Rate	# of Wire Centers	% of Total Lines
1	1,132,622	\$ 11.77	\$ 12.57	57	67%
2	437,033	\$ 22.39	\$ 11.79	94	26%
3	112,836	\$ 48.26	\$ 11.36	77	7%
Totals/Avg.	1,682,491	\$ 16.98	\$ 12.29	228	100%