

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREFILED REBUTTAL TESTIMONY

OF

THOMAS HYDE

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.

AND

MCI TELECOMMUNICATIONS CORPORATION

DOCKET NOS. 960833-TP & 960846-TP

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1 I. Qualifications

2 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND  
3 EMPLOYMENT.

4 A. My name is Thomas Hyde. I am presently providing consulting services to  
5 MCI Telecommunications Corporation ("MCI"). However, my testimony  
6 in this matter is being co-sponsored by MCI and AT&T Communications of  
7 the Southern States, Inc. (AT&T).

8

9 Q. PLEASE STATE YOUR BACKGROUND AND QUALIFICATIONS.

10 A. I have over thirty years of experience in telecommunications including  
11 installation, maintenance and design of switched and special toll services  
12 with AT&T; pricing, rate and tariff development with South Central Bell  
13 and BellSouth Telecommunications (BST) for various services including  
14 intrastate and interstate switched and special access; and access and  
15 technology planning with the National Exchange Carrier Association  
16 (NECA). My job responsibilities required that I master diverse  
17 telecommunications disciplines including network design, equipment  
18 installation and maintenance, rate and tariff development, project  
19 management and technical aspects of the public switched network. In the  
20 1980's, while responsible for the switched and special access rate and tariff  
21 development for BST following the divestiture of the Bell System, I  
22 developed rates and support documentation for the implementation of  
23 access. As part of that process, I also had the responsibility of assuring

1 the validity of the cost and demand inputs used in developing those rates.  
2 During this time the Federal Communications Commission (FCC) held that  
3 this was the methodology to be emulated by the other Regional Bell  
4 Operating Companies (RBOCs). For the past five years I have been  
5 responsible for access and technology planning at NECA, responsible for  
6 planning and implementation of Local Transport Restructure, Access  
7 Reform, ISDN, SONET and various other services. I am presently  
8 providing telecommunications consulting services to MCI. I have recently  
9 filed unbundled network element non-recurring cost testimony with the  
10 Alabama, Georgia and Louisiana Public Service Commissions and the  
11 Tennessee Regulatory Authority. In addition, I have also recently filed  
12 Universal Service Benchmark testimony with the Kentucky and the South  
13 Carolina Public Service Commissions and the Tennessee Regulatory  
14 Authority.

15

16 **II. Purpose of Testimony**

17

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

19 **A.** The purpose of my testimony is to discuss concerns with BST's non-  
20 recurring cost (NRC) study and proposed NRC charges and BST's  
21 recurring and non-recurring charges for certain collocation elements.

22

23 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF BST'S NRC COST**

1           **STUDY METHODOLOGY.**

2   **A.**    In its NRC cost study, BST has attempted to identify functional activities, to  
3           assign a number of workforce hours to that activity and to multiply those  
4           hours by a labor rate.

5           However, I have reviewed BST's NRC cost studies in several jurisdictions  
6           and they consistently include errors that result from an incorrect application  
7           of BST's own methodology. These errors would still be relevant even if the  
8           Commission decides to approve the BST methodology, since they represent  
9           BST's inability to correctly implement their own methodology. An example  
10          of this type of error in the BST Florida NRC cost study is the application of  
11          the LCSC work time associated with no facilities available. BST assumes  
12          that when there are no facilities available, the CLEC will order special  
13          construction and thereby incur special construction charges five percent of  
14          the time. Instead of providing a percentage of "no facilities available"  
15          occurrences, BST instead applies the five percent cost to the entire universe  
16          of ADSL and HDSL orders. This methodology incorrectly adds  
17          unnecessary costs for work that is not performed by BST.

18          I recommend that if the Commission does not adopt the NRC model  
19          sponsored by MCI and AT&T, it should adjust BST's cost study used to  
20          develop nonrecurring costs for unbundled network elements to correct these  
21          errors.

22

1           **III.    BST's Cost Modeling Assumptions**

2

3   **Q.    HAVE YOU REVIEWED BST'S NRC COST MODELING**  
4   **ASSUMPTIONS?**

5   **A.    Yes.**

6

7   **Q.    WHAT ARE YOUR GENERAL CONCERNS ABOUT THESE**  
8   **ASSUMPTIONS?**

9   **A.    BST's non-recurring cost model filed in Florida does not recognize the**  
10   **currently available OSS systems that allow CLECs to interface with BST**  
11   **electronically. In its cost study, BST has instead assumed that all CLEC**  
12   **orders will be processed manually. This results in non-recurring charges**  
13   **far higher than is appropriate using current technology. As a matter of fact,**  
14   **BST has included lower cost electronic ordering assumptions in the cost**  
15   **studies filed in its other jurisdictions. In addition, as disclosed by discovery**  
16   **in Georgia in BST's response to AT&T's First Set of Interrogatories, item**  
17   **39 in Docket 7061-U, BST's non-recurring cost modeling assumptions are**  
18   **based on time estimates and other information gathered in the early 1990's**  
19   **(majority before 1993, approximately 80% before 1995). Clearly,**  
20   **assumptions based on information that is this old, averaged in many**  
21   **instances and then projected, cannot reflect forward looking, least cost**  
22   **technology, and the many cost improvements that current and future**  
23   **methodology improvements create. In many cases, the approach used by**

1 BST leads to overstated cost levels that do not reflect a competitive  
2 environment.

3 In addition, the CLECs will sometimes order a loop and the cross-connect  
4 to the collocation cage in order to provide service to their customers using  
5 the CLECs own switch. BST treats each of these unbundled network  
6 elements as being provisioned separately and requires the CLEC to issue  
7 two orders for the provisioning of a single service. A UNE loop cannot  
8 work by itself. It must be connected to another element in order to provide  
9 service to an end user. This results in another overstatement of costs by  
10 BST.

11 BST's non-recurring cost study also overstates necessary work functions and  
12 time necessary to complete requested tasks.

13  
14 **Q. PLEASE EXPLAIN YOUR CONCERN WITH THE INFORMATION**  
15 **BST HAS USED AS THE BASIS FOR ITS COST STUDIES.**

16 **A.** Most of the non-recurring cost studies BST has filed in this docket  
17 determine non-recurring costs by estimating the time required to perform  
18 certain activities and the likelihood that the activities will need to be  
19 performed, e.g., the likelihood of application of special construction  
20 charges. This is basically the same approach the AT&T/MCI nonrecurring  
21 cost model uses to estimate the cost of nonrecurring charges. To perform  
22 these studies properly on a forward-looking basis, BST should have based  
23 its order processing assumptions and time estimates on forward-looking

1 technology. Instead, BST has based its cost studies upon manual order  
2 processing and surveys of its service centers performed as far back as 1989.  
3 These surveys reflect all of the inefficiencies that existed in BST's systems  
4 at the time the surveys were done. This historic data does not reflect all of  
5 the new technologies, or more reliable OSSs available today that allow  
6 electronic interfaces with CLECs.

7

8 **Q. DID THE BST COST ANALYSIS CONSIDER THE MOST**  
9 **FORWARD-LOOKING, LEAST COST AND MOST EFFICIENT OSSs**  
10 **WHEN MODELING THE NON-RECURRING COSTS?**

11 **A. No. BST relied on surveys based on early 1990's conditions, which do not**  
12 **reflect forwarding looking, least cost and most efficient technologies and**  
13 **methodologies that are currently available today, and in fact are being**  
14 **deployed by BST today.. New entrants should have non-recurring charges**  
15 **that are based on forward-looking costs of optimized systems. Any other**  
16 **approach to costing would not stimulate a competitive environment.**

17

18 **Q. HAS AT&T/MCI ADJUSTED THE BST NRC COST STUDIES TO**  
19 **REFLECT A LEAST COST, FORWARD LOOKING TECHNOLOGY**  
20 **ENVIRONMENT?**

21 **A. Yes. AT&T and MCI have adjusted the cost studies filed by BST, to**  
22 **reflect more appropriate work times and work activities. The results of**  
23 **these adjustments are contained in the testimony of Wayne Ellison, and**

1 reflect my recommended changes to eliminate or reduce work activity and  
2 the time to complete remaining work activity.

3

4 **IV. Collocation**

5

6 **Q. PLEASE EXPLAIN THE EQUIPMENT BST HAS INCLUDED IN ITS**  
7 **COST MODELING FOR COLLOCATION.**

8 **A. Under BST's cost methodology, the equipment identified to provide an**  
9 **EICT includes not just jumpers, tie and coax cables, but also electronic**  
10 **equipment such as regenerators and DXSs. This additional equipment is**  
11 **unnecessary, driving the level of recurring and non-recurring costs**  
12 **significantly beyond the least cost and most efficient manner for**  
13 **provisioning this type of cross-connect.**

14 **It is unreasonable for BST to charge interconnectors for the cost of**  
15 **regenerators in a physical collocation arrangement as most cabling**  
16 **arrangements can be established such that distances do not require the**  
17 **application of regenerators for physical collocation service. The FCC**  
18 **recently concluded in FCC 97-208, Physical Collocation Investigation,**  
19 **Paragraph 117-120, dated June 13, 1997, that the charges for regeneration**  
20 **should be excluded. The FCC reasoned that the ILECs control the**  
21 **collocation design and resulting cabling routes and lengths, and have the**  
22 **ability to control whether regeneration devices are required. Thus an ILEC,**  
23 **if allowed to charge for regeneration, would not have the incentive to locate**  
24 **competitors in the most efficient location available and it would allow the**

1 ILEC to discriminate against its competitors.

2

3 **Q. WHAT IS BST PROPOSING REGARDING THE DESIGN OF ITS**  
4 **COLLOCATION JUMPER?**

5 **A. BST has built costs into its study for the termination of collocated circuits**  
6 **on an Intermediate Distribution Frame (“IDF”). This is an unnecessary**  
7 **requirement that also inflates costs for the new entrants. BST’s response to**  
8 **MCI’s Fourth Set of Data Requests, page 1, Item 4-1 b), Georgia Public**  
9 **Service Commission, Docket 7061-U indicates that a minimal number of**  
10 **offices have such frames in place and that there is no intention to establish**  
11 **such frames in all offices. However, BST’s cost study assumes that many**  
12 **collocation circuits terminate on an IDF.**

13

14 **Q. ARE CROSS CONNECTIONS AND/OR DSXs REQUIRED WHEN**  
15 **USING FORWARD LOOKING TECHNOLOGIES SUCH AS DCS**  
16 **AND GR-303 IDLC?**

17 **A. No. In the case of a DS1 terminating on an IDLC, no DSX (or collocation**  
18 **cross connection) is required. A properly installed DCS is cabled or**  
19 **hardwired to the office repeater bay or fiber Multiplexer without a DSX.**  
20 **This allows all new-connects, disconnects, and rearrangements to flow**  
21 **through automatically via upstream OSSs over a standard TL1/X.25**  
22 **interface.**

23 **If BST were to assume forward-looking technology such as IDLC with GR-**  
24 **303 interface or DCS in its cost studies, the software based stored program**  
25 **control technology would allow for flow-through provisioning and**

1 maintenance from upstream OSS systems right down to the network  
2 elements in a matter of seconds with little or no human intervention. This  
3 would eliminate the cost contained in the BST study for manual order  
4 processing and for running manual cross connects to the MDF every time a  
5 customer changed providers.

6

7 **V. Other Modeling Concerns**

8

9 **Q. WHAT IS A MAJOR COST COMPONENT OF BST'S NON-**  
10 **RECURRING COSTS?**

11 **A. The non-recurring cost studies for several elements, including the unbundled**  
12 **loop and port, include time for unnecessary activities at BST's Local**  
13 **Customer Service Center (i.e., ICSC/LCSC). Utilizing forward looking,**  
14 **least cost, most efficient technology, the new entrant will be the entity that**  
15 **will be doing the ordering, and will send the information electronically to**  
16 **BST's OSSs. To include additional and unnecessary manual intervention**  
17 **from the LCSC would delay the provisioning and increase the costs. The**  
18 **LCSC need not be involved with new entrant's orders unless requested by**  
19 **the new entrant or to work the very small amount of fallout that would**  
20 **occur. The assumed LCSC activities are inappropriate in light of the FCC's**  
21 **requirement that electronic interfaces be available by January 1, 1997. By**  
22 **assuming manual intervention at the LCSC, BST's cost studies do not**  
23 **reflect least cost, most efficient OSS modeling assumptions. Therefore, this**  
24 **Commission should require BST to eliminate all unnecessary manual costs**  
25 **associated with service ordering. In addition, BST has stated that system**

1 improvements would be completed in September 1997 that would provide  
2 front end editing, so that any order information received with errors would  
3 be returned to the sender without manual intervention. Additionally, BST is  
4 obligated to provide to AT&T and MCI electronic notification of rejection  
5 of any order. Once receiving such electronic notice, the CLEC, and not  
6 BST, will correct the order for resubmission to BST for completion. This  
7 addition, when implemented by BST early next year, will also eliminate the  
8 need for extensive manual intervention on the part of BST.

9 As previously ordered by this Commission, Order PSC-96-1579-FOF-TP,  
10 page 89, BST should not be allowed to recover the incremental investment  
11 cost to put OSS interconnect systems in place for CLECs. This is a  
12 substantial barrier for entry into this business for new entrants. Each  
13 participant in this business is already establishing new and costly processes  
14 to interconnect effectively with BST. If each party is responsible for its  
15 own costs in this area, each participant will be driven to establish a least  
16 cost and efficient interface. If the new entrants are required to pay  
17 whatever cost BellSouth undertakes and any subsequent costs due to  
18 inappropriate assumptions of fallout, BellSouth will not necessarily build the  
19 most effective least cost system.

20 **Q. PLEASE EXPLAIN YOUR CONCERN REGARDING TRAVEL**  
21 **COSTS REFLECTED IN BST'S NON-RECURRING STUDIES.**

22 **A.** BST has assumed that travel time (e.g., 20 minutes to and from the office)  
23 would be required to complete particular tasks. The travel time estimates  
24 are also based on the 1990's studies from which BST has drawn its other  
25 time estimates. Travel time will rarely be necessary where the facilities are

1 in place and provisioning functions occur remotely and electronically. Even  
2 when dispatch is required, the level of time BST has assumed per order is  
3 excessive and assumes that employees are dispatched on a per order basis.  
4 BST has central offices that are staffed. BST also has central offices that  
5 are not staffed. When work is needed in these non-staffed offices, the  
6 employee is sent to do several jobs at one time.

7  
8 Moreover, when technicians are dispatched, they should be equipped with  
9 mechanized field access systems that allow them to complete orders, get  
10 new work assignments, close trouble tickets, update LFACs data bases, get  
11 remote access to test systems (e.g., MTL, SARTS) and complete their work  
12 in a mechanized fashion. BST does not dispatch employees out on a per  
13 order basis and should not be using such an assumption in its cost studies.

14  
15 **Q. PLEASE EXPLAIN YOUR CONCERN WITH BST'S COST**  
16 **MODELING ASSUMPTIONS IN THE CASE WHERE NEW**  
17 **ENTRANTS PURCHASE THE UNBUNDLED NETWORK**  
18 **ELEMENTS FOR IN PLACE FACILITIES?**

19 When service is established for the first time at the premise, a Network  
20 Interface Device and a drop wire (either buried or aerial) are installed at the  
21 premises. The drop wire and the distribution cable are cross-connected to  
22 the feeder cable through a Serving Area Interface ("SAI") or through a  
23 Remote Terminal ("RT"). The feeder cable terminates in the central office  
24 on the Main Distribution Frame ("MDF") and where required, a cross  
25 connect on the MDF connects the cable pair with the switch.

1           Once these cross connects are established, they are rarely “broken down” or  
2           disconnected. ILECs have found that when a customer disconnects service,  
3           another customer typically will be establishing service at that same location.  
4           Therefore, it does not make economic sense to disconnect the cross  
5           connects. This practice is known as Dedicated Inside Plant (“DIP”) and  
6           Dedicated Outside Plant (“DOP”). This process was designed to promote  
7           internal efficiencies and cost savings, while at the same time enhance  
8           delivery of the service to the customer.  
9           Given these practices, BST simply needs to groom, or electronically re-  
10          arrange, the IDLC facilities and/or update the billing record to “install” an  
11          order when:

- 12                   (1) A CLEC places an order to migrate an existing customer’s  
13                   facilities to CLEC service; or  
14                   a CLEC places an order to connect an existing customer’s loop to  
15                   the CLEC’s collocation facilities

16          In both of these instances, the order would flow through the electronic  
17          gateway service order process to automatically make the required changes  
18          and would require no manual intervention.

19          Rather than assuming the simple grooming and billing change activity that  
20          would be performed by BST to install the order in these instances, the BST  
21          cost study assumes a significant amount of manual intervention for service  
22          order, engineering and connect and test thus significantly overstating the  
23          non-recurring costs.

24

25   **Q.   DO YOU HAVE ANY CONCERNS WITH THE INCLUSION OF**

1           **DISCONNECT COSTS IN BST'S NRC COST STUDY?**

2    **A.**    Yes. BST's cost study includes a significant amount of manual intervention  
3           and costs associated with disconnects. As discussed above, in a DIP/DOP  
4           environment, these costs are inappropriate.

5           The inclusion of all disconnect costs in BST's cost studies will also generate  
6           windfall profits for BST in a competitive environment. These windfall  
7           profits occur when BST continues to collect disconnect charges even when  
8           there is no costs incurred. For example, BST has already charged  
9           disconnect costs to the end user when the service was first installed and  
10          holds that money in escrow until the service is disconnected. In a  
11          competitive environment, customers will be able to change their existing  
12          service to another local exchange carrier. Each time that an existing service  
13          is converted to another local exchange carrier, BST proposes to charge  
14          disconnect costs even though disconnect costs will not be incurred. For  
15          example, if a BST local customer were to convert to AT&T local service  
16          BST would charge an additional disconnect charge in that NRC, even  
17          though money for disconnecting the service was already being held by BST  
18          and the service would not be disconnected - merely rerouted to AT&T with  
19          AT&T incurring the costs of the conversion. To further compound this  
20          problem, BST proposes to charge the same disconnect costs every time a  
21          customer converts carriers. In the preceding example, if the same customer  
22          subsequently changes to MCI, the disconnect costs would be applied once  
23          again by BST. In this example BST would have collected the disconnect  
24          costs three times without ever disconnecting the service.

25          If the Commission does not adopt the NRC model sponsored by MCI and

1           AT&T, it should adjust the BST NRC cost study to correct these flaws.

2

3   **Q.   DOES THAT CONCLUDE YOUR TESTIMONY?**

4   **A.   Yes.**

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was furnished to the following parties by U.S. Mail or hand delivery(\*\*) this 9th day of December, 1997.

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