

1 BEFORE THE  
2 FLORIDA PUBLIC SERVICE COMMISSION

3 In the Matter of : DOCKET NO. 960847-TP  
4 Petitions by AT&T Communications of : DOCKET NO. 960980-TP  
5 the Southern States, Inc., MCI :  
6 Telecommunications Corporation, MCI :  
7 Metro Access Transmission Services, :  
8 Inc., for arbitration of certain :  
9 terms and conditions of a proposed :  
10 agreement with GTE Florida :  
11 Incorporated, concerning :  
12 interconnection and resale under :  
13 the Telecommunications Act of 1996. :  
14 :

15 SECOND DAY - AFTERNOON SESSION

16 VOLUME 10

17 PAGE 1101 through 1256

18 PROCEEDINGS: HEARING  
19 BEFORE: CHAIRMAN SUSAN F. CLARK  
20 COMMISSIONER J. TERRY DEASON  
21 COMMISSIONER JULIA L. JOHNSON  
22 COMMISSIONER DIANE K. KIESLING  
23 COMMISSIONER JOE GARCIA  
24 DATE: Tuesday, October 15, 1996  
25 PLACE: Betty Easley Conference Center  
Room 148  
4075 Esplanade Way  
Tallahassee, Florida  
REPORTED BY: NANCY S. METZKE, RPR, CCR  
APPEARANCES:

(As heretofore noted.)

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(Transcript continues in sequence from Volume 9)

CHAIRMAN CLARK: Mr. Gillman, are we ready to stipulate the testimony in?

MR. GILLMAN: I think so.

CHAIRMAN CLARK: Okay.

MR. GILLMAN: The first one being Mr. Hartshorn.

CHAIRMAN CLARK: That's correct.

MR. GILLMAN: And Mr. Hartshorn had direct testimony in 960847, and I would ask that that testimony be inserted into the record as though read.

CHAIRMAN CLARK: I have that he has --

MR. GILLMAN: He adopted Mr. Wood's testimony. You want me to go through each one of them?

CHAIRMAN CLARK: Okay. We are doing the direct testimony right now, okay.

MR. GILLMAN: And there were four exhibits attached to that testimony, and I would request that that be marked as the next composite exhibit.

CHAIRMAN CLARK: The exhibits marked AEW-1 through 4?

MR. GILLMAN: Yes, AEW-1 through 4, I'm sorry.

CHAIRMAN CLARK: Will be marked as composite

1 exhibit 27.

2 (SO MARKED EXHIBIT 27)

3 MR. GILLMAN: And Mr. Hartshorn has also adopted  
4 the testimony of Mr. Wood with respect to the MCI  
5 arbitration.

6 CHAIRMAN CLARK: The rebuttal testimony of  
7 Mr. Wood?

8 MR. GILLMAN: Well, I'm sorry, I'm trying to do  
9 this off of a chart. He filed direct in the MCI rebuttal  
10 in adopting Wood. Okay, let's start over.

11 CHAIRMAN CLARK: Okay.

12 MR. GILLMAN: For Mr. Hartshorn we had talked  
13 about the direct testimony that was, where he adopted  
14 Albert Wood. He had MCI or direct testimony of Albert Wood  
15 that was filed in the MCI arbitration. There were no  
16 exhibits.

17 MS. CANZANO: Staff has an exhibit for  
18 Mr. Hartshorn.

19 COMMISSIONER KIESLING: I'm sorry, I'm completely  
20 confused.

21 CHAIRMAN CLARK: I'm trying to sort it out too.  
22 Would it be correct that we have direct -- it's all  
23 entitled Albert E. Wood.

24 MR. GILLMAN: Yes.

25 CHAIRMAN CLARK: Except for the rebuttal

1 testimony, and that is Larry Hartshorn; is that correct?

2 MR. GILLMAN: Yes.

3 CHAIRMAN CLARK: All right. And we have direct  
4 testimony filed in Docket 960847, and that is the one that  
5 has the exhibits attached to it that we have identified as  
6 exhibit 27.

7 MR. GILLMAN: Yes.

8 CHAIRMAN CLARK: Okay. And then we have another  
9 piece of direct testimony, and that docket number is  
10 960980-TP. That is two pages of direct testimony also of  
11 Mr. Albert E. Wood.

12 MR. GILLMAN: Which Mr. Hartshorn has adopted.

13 CHAIRMAN CLARK: All right. That testimony will  
14 be inserted in the record as though read, and then finally  
15 we have rebuttal testimony of Larry Hartshorn filed in  
16 Docket 960847. It has no exhibits. It's five pages.

17 MR. GILLMAN: That's correct.

18 CHAIRMAN CLARK: All right. That testimony will  
19 be inserted in the record as though read. Is that all the  
20 testimony for Mr. Hartshorn?

21 MR. GILLMAN: There was also -- Mr. Hartshorn  
22 filed his own rebuttal testimony in the MCI case with no  
23 exhibits.

24 CHAIRMAN CLARK: Okay.

25 COMMISSIONER KIESLING: Could I get one more

1 clarification?

2 MR. GILLMAN: Yes, ma'am.

3 COMMISSIONER KIESLING: Because I've got three  
4 sets of rebuttal, and I also have a copy of a letter from  
5 GTE that says you're withdrawing one set and replacing it  
6 with the other.

7 MR. GILLMAN: The rebuttal that should be  
8 inserted into the record was filed October 7th of 1996;  
9 that replaced the previous one.

10 CHAIRMAN CLARK: The rebuttal testimony filed in  
11 960980, it consists of ten pages?

12 MR. GILLMAN: Yes.

13 CHAIRMAN CLARK: Okay. That testimony will be  
14 inserted in the record as though read. Is there anything  
15 else for Mr. Hartshorn?

16 MR. GILLMAN: No, there is not.

17 MS. CANZANO: Staff has an exhibit for  
18 Mr. Hartshorn, and we have prepared it as AEW-5 consisting  
19 of his deposition transcript from October -- from September  
20 30th, 1996 and with his late-filed deposition exhibit  
21 number 1.

22 CHAIRMAN CLARK: All right. The document  
23 entitled AEW-5 which is the deposition transcript and  
24 late-filed deposition exhibit number 1 for Larry Hartshorn  
25 will be identified as exhibit 28.

1 (SO MARKED EXHIBIT 28)

2 MS. CANZANO: Thank you.

3 CHAIRMAN CLARK: And exhibit 27 and 28 will be  
4 admitted in the record without objection.

5 MR. GILLMAN: Douglas Morris filed direct  
6 testimony in Docket Number 960847. There were five  
7 exhibits marked DNM-1 through DNM-5, and I'd ask that those  
8 exhibits be marked as the next composite exhibit and ask  
9 that the direct testimony be inserted into the record as  
10 though read.

11 CHAIRMAN CLARK: Would you -- how many pieces of  
12 testimony do we have for Mr. Morris?

13 MR. GILLMAN: Three.

14 CHAIRMAN CLARK: Okay. I have direct testimony  
15 filed in Docket 960847 which is 28 pages with an attached  
16 exhibit of DNM-1 through 5?

17 MR. GILLMAN: Yes.

18 CHAIRMAN CLARK: All right. We'll mark that as  
19 composite exhibit 29.

20 (SO MARKED EXHIBIT 29)

21 MR. GILLMAN: Then there was, Mr. Morris filed  
22 direct testimony of two pages in 960980.

23 CHAIRMAN CLARK: Right.

24 MR. GILLMAN: No exhibits.

25 CHAIRMAN CLARK: The direct testimony filed in



1 960980 will be inserted in the record as though read.

2 MR. GILLMAN: Mr. Morris also filed rebuttal  
3 testimony in 960980 of three pages with no exhibits.

4 CHAIRMAN CLARK: That testimony will be inserted  
5 in the record as though read.

6 MR. GILLMAN: Okay. And that's it for the  
7 testimony.

8 CHAIRMAN CLARK: And staff has no exhibits?

9 MS. CANZANO: Staff does not.

10 CHAIRMAN CLARK: Okay. Thank you.

11 MR. GILLMAN: Alan Peters filed rebuttal  
12 testimony in Docket Number 960847-TP numbering four pages,  
13 no exhibits.

14 CHAIRMAN CLARK: That testimony will be inserted  
15 in the record as though read.

16 MR. GILLMAN: That's the only piece of testimony  
17 for Mr. Peters.

18 CHAIRMAN CLARK: Pardon me?

19 MR. GILLMAN: That is the only piece of testimony  
20 for him.

21 CHAIRMAN CLARK: Okay.

22 MR. GILLMAN: Mr. Jernigan, testimony was filed  
23 on behalf of Charles F. Bailey in 960847-TP, 17 pages  
24 adopted by Mr. Jernigan, no exhibits.

25 CHAIRMAN CLARK: That testimony will be inserted

1 in the record as though read.

2 MR. GILLMAN: Charles Bailey also -- there was  
3 testimony filed on behalf of Charles Bailey, direct  
4 testimony in 960980 of two pages also adopted by  
5 Mr. Jernigan.

6 CHAIRMAN CLARK: That testimony will be inserted  
7 in the record as though read.

8 MR. GILLMAN: Mr. Jernigan filed rebuttal  
9 testimony in Docket Number 960847 of three pages and no  
10 exhibits.

11 CHAIRMAN CLARK: That testimony will be inserted  
12 in the record as though read.

13 MR. GILLMAN: Mr. Jernigan also filed rebuttal  
14 testimony in Docket Number 960980 of seven pages with no  
15 exhibits.

16 CHAIRMAN CLARK: That testimony will be inserted  
17 in the record as though read.

18 MR. GILLMAN: The next witness is Kirby  
19 Cantrell. Direct testimony was filed of John W. Ries in  
20 Docket Number 960847, 24 pages adopted by Mr. Cantrell, no  
21 exhibits. Ready?

22 CHAIRMAN CLARK: You said 24 pages?

23 MR. GILLMAN: Yes.

24 CHAIRMAN CLARK: All right. That testimony will  
25 be inserted in the record as though read.

1 MR. GILLMAN: Direct testimony was also filed by  
2 John W. Ries in Docket Number 960980 which was adopted by  
3 Mr. Cantrell. It has two pages, no exhibits.

4 CHAIRMAN CLARK: That testimony will be inserted  
5 in the record as though read.

6 MR. GILLMAN: Mr. Cantrell filed rebuttal  
7 testimony in Docket Number 960847 consisting of 6 pages and  
8 no exhibits.

9 CHAIRMAN CLARK: That testimony will be inserted  
10 in the record as though read.

11 MR. GILLMAN: And Mr. Cantrell also filed  
12 rebuttal testimony in 960980 consisting of six pages with  
13 no exhibits.

14 CHAIRMAN CLARK: That testimony will be inserted  
15 in the record as though read. That concludes the testimony  
16 we need to get into the record.

17 MR. GILLMAN: Yes.

18 (Transcript follows in sequence in Volume 11)  
19  
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**GTE FLORIDA INCORPORATED**

**DIRECT TESTIMONY OF ALBERT E. WOOD, JR.**

**DOCKET NO. 960847-TP**

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

A. My name is Albert E. Wood, Jr. My business address is 545 E. John Carpenter Freeway, Irving, TX, 75062.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

A. I am employed by GTE Telephone Operations as a Staff Administrator in the Service Activation Section of the Service Fulfillment Department.

**Q. PLEASE BRIEFLY STATE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.**

A. I received a B.B.A degree from the University of Texas at El Paso. I have completed numerous technical and business related courses provided through GTE's Education and Training Department.

I began my career with GTE in 1980 as a Central Office and Toll Network Supervisor. In 1984 I joined the Service Fulfillment Department working on the implementation of a mechanized telephone service provisioning and activation system. In 1989 I

1 became responsible for E9-1-1 systems implementation, data base  
2 generation and update processing for GTE's 13 Central Area  
3 states. I served as team leader of the Operation's Systems  
4 migration team in the Central Area for the GTE /Contel merger.  
5 In 1995 I assumed my current position in the Service Activation  
6 section at GTE Telephone Operations Headquarters.

7

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

9 A. My testimony presents GTE's position on the open issues  
10 between it and AT&T with regard to AT&T's requests for  
11 unbundled elements and wholesale services. I address only loop  
12 and switch unbundling (other parts of the network--such as  
13 Signaling System 7 and Advanced Intelligent Network--are  
14 discussed by other witnesses). I will explain how these network  
15 elements are interrelated, and how a request for one network  
16 element might affect other network elements, including operator  
17 services and directory assistance. I will state the relevant  
18 provisions of the Telecommunications Act of 1996 (the "Act")  
19 and the FCC's rules that govern the unbundling of the loop and  
20 switch. I will next summarize the issues to be arbitrated and the  
21 party's position with respect to loop and switch unbundling and  
22 operator service and directory assistance issues. Finally, I will  
23 explain the rationale underlying GTE's position.

24

25

1 Accompanying this testimony (and labelled as Exhibit No. AEW-1)  
2 is a videotape that provides a tour of one type of GTE central  
3 office. The central office depicted in the video is just one type of  
4 central office that is included in GTE's network. GTE's network  
5 includes many different types of central offices, loops and  
6 switches that each have different capabilities and functions. For  
7 example, some central offices may use "remote switching units"  
8 or other remote units that may affect how calls are carried, how  
9 central offices function, and whether certain network elements  
10 may be unbundled. In sum, there is no "one size fits all"  
11 assumption one may rely upon in determining whether a particular  
12 part of GTE's network can be unbundled. This video includes a  
13 computer graphic diagram of the loop and switch, and this  
14 diagram is reproduced as Exhibit No. AEW-2.

15

16 **Q. PLEASE DESCRIBE THE LOOP.**

17 **A.** As depicted in the video and on the attached diagram, the local  
18 loop begins at the network interface device ("NID"), which is the  
19 point of demarcation between the customer's inside wiring and  
20 GTE's facilities. A customer's telephone line typically extends  
21 from the NID to a pedestal, where it is aggregated with a handful  
22 of other nearby subscriber lines into a single cable sheath. In  
23 many of GTE's local networks, the cable containing these  
24 aggregated lines extends from the pedestal to a distribution box  
25 (the distribution box is often referred to as a "cross-connect"),

1 where the cable is aggregated with other cables into a higher  
2 capacity cable, or "feeder" cable (as discussed in this testimony,  
3 application of pair-gain technology is an alternative to the use of  
4 feeder cables). The feeder cable extends to the central office,  
5 where it is connected to the main distribution frame ("MDF").  
6 The lines and cables extending from the NID to the MDF are  
7 referred to collectively as the local loop.

8  
9 Many of GTE's local networks have different types of distribution  
10 and feeder facilities that use different technologies and have  
11 different capabilities. This point is especially important, because  
12 AT&T erroneously assumes that all of GTE's loop facilities are  
13 alike, and that a "one size fits all" approach to loop unbundling is  
14 possible. AT&T's erroneous assumption will be discussed in later  
15 sections of this testimony.

16

17 **Q. PLEASE DESCRIBE THE SWITCH.**

18 **A.** The switching part of the network begins where the local loop  
19 ends. In many of GTE's local networks, the local loop (or  
20 "subscriber line") is extended from the MDF by way of cabling  
21 facilities to a port. This port provides the subscriber line with  
22 access to the tables and call processors that are part of the  
23 integrated switching fabric. The switch itself is a computer that  
24 provides call-related capabilities and functions such as dial tone,  
25 basic switching, custom calling features (e.g., call waiting and

1 three-way calling), and call signaling generation. It also provides  
2 access to transport facilities, operator systems, databases and  
3 Signaling System 7 ("SS7") capability, and some switches even  
4 are capable of providing access to GTE's Advanced Intelligent  
5 Network ("AIN").

6  
7 In order to understand the issues presented by AT&T's request  
8 for switch unbundling and why this request is not technically  
9 feasible, one must understand how a switch operates. Imagine  
10 that you are in Tampa and you want to call a friend in New York  
11 City. You pick up the phone and dial the long distance number.  
12 The digits you dialed travel over the local loop to the MDF, where  
13 they are "cabled over" to the line card where your port resides.  
14 The port provides these digits with access to the switching fabric.  
15 Embedded in this fabric are tables that "read" the digits you have  
16 dialed and that route your call to the appropriate trunk group. In  
17 our example, you are making a long-distance call to New York  
18 City; therefore, you dialed the numbers "1-212-NXX-XXXX." The  
19 table reads these numbers, recognizes that you are placing a long-  
20 distance call, and the switch's call processors route your call to  
21 the dedicated trunk group serving your presubscribed long-  
22 distance carrier.

23  
24 If you were making a local call to someone served by the same  
25 central office, then your call would be routed to the appropriate



1 port of the called party. Similarly, if you called Directory  
2 Assistance ("DA") by dialing "411" or Operator Services ("OS")  
3 by dialing "0," the tables and call processors would route your  
4 call to the DA or OS trunk group.

5  
6 The "table reading functions" and the "call processor routing  
7 functions" described above are accomplished by the assignment  
8 of a Line Class Code ("LCC") to every subscriber telephone  
9 number. LCCs are table values that define, among other things,  
10 the class of service provided to a specific subscriber, the rate  
11 center for a given subscriber line, and dialed number  
12 analysis/routing information associated with that line. A LCC  
13 must be assigned to a specific subscriber line in order for the calls  
14 placed over that line to be read and routed to the appropriate  
15 trunk group.

16  
17 AT&T proposes that GTE assign LCCs to each of AT&T's  
18 customers, or that GTE provision all of its switches in some other  
19 manner to accommodate the trunk groups requested by AT&T.  
20 GTE's rationale later in the testimony explains why AT&T's  
21 proposal is not feasible. The testimony also explains why AT&T's  
22 proposals with regard to Busy Line Verify and Busy Line Interrupt  
23 will require AT&T to pay the significant costs of implementing  
24 such proposals.

25

1       **Q.    WHAT ARE THE ILEC'S UNBUNDLING REQUIREMENTS UNDER**  
2       **THE TELECOMMUNICATIONS ACT OF 1996 AND THE FCC'S**  
3       **ORDER?**

4       **A:    Section 251(c)(3) of the Act requires incumbent local exchange**  
5       **carriers ("ILECs") to provide to any requesting**  
6       **telecommunications carrier "nondiscriminatory access to network**  
7       **elements on an unbundled basis at any technically feasible point**  
8       **on rates, terms, and conditions that are just, reasonable, and**  
9       **nondiscriminatory." 47 U.S.C. § 251(c)(3) (1996). The Act**  
10       **defines network element to mean**

11               **a facility or equipment used in the provision of**  
12               **a telecommunications service. Such term also**  
13               **includes features, functions, and capabilities**  
14               **that are provided by means of such facility or**  
15               **equipment, including subscriber numbers,**  
16               **databases, signaling systems, and information**  
17               **sufficient for billing and collection or used in**  
18               **the transmission, routing, or other provision**  
19               **of a telecommunications service.**

20               **(Act at § 153(29).)**

21

22               **In its recent Order, the FCC identified seven network elements**  
23               **that ILECs must offer on an unbundled basis, including the NIDs,**  
24               **the local loop, local and tandem switching capability, and OS and**  
25               **DA facilities (as discussed in this testimony, the type of access to**

1 OS and DA facilities, functions and capabilities requested by  
2 AT&T requires further unbundling of GTE's switches; therefore,  
3 our discussion of the feasibility of access to OS and DA is  
4 included in this testimony). (Implementation of Local Competition  
5 Provisions in the Telecommunications Act of 1996, CC Docket  
6 96-98, FCC 96-325 (released Aug. 8, 1996) ("Order") at ¶ 366.)  
7 The FCC did not require sub-loop unbundling, but noted that State  
8 commissions are free to prescribe additional unbundled elements  
9 and that parties may agree to the unbundling of additional  
10 elements through voluntary negotiation. *Id.*

11

12 The FCC found that it was technically feasible for ILECs to  
13 unbundle the NID, the loop and the switch, for it adopted a very  
14 broad definition of technical feasibility:

15 [w]e conclude that the term "technically  
16 feasible" refers solely to technical or  
17 operational concerns, rather than economic,  
18 space, or site considerations.

19 (Order at ¶198.) The FCC concluded that all State commissions  
20 must apply this definition of technically feasible. (Order at ¶  
21 281.) (The FCC has placed the burden of proof regarding  
22 technical feasibility on ILECs by requiring ILECs to show that it is  
23 technically infeasible to unbundle a given element. (Order at ¶  
24 194.) However, GTE makes this showing regarding certain  
25 elements requested by AT&T below.)

1 As discussed in the Arbitration Brief included in GTE's Response,  
2 GTE disagrees with the FCC's definition of technical feasibility.  
3 Indeed, under the FCC's definition almost anything is "feasible,"  
4 because the question of feasibility is decided in a vacuum without  
5 reference to real-world concerns such as cost, space, or existing  
6 network configurations. As a threshold matter, GTE requests that  
7 the Commission reject the FCC's definition and permit the parties  
8 to introduce evidence of technical feasibility based on a more  
9 reasonable definition of this term. Having preserved this  
10 argument, GTE will address in this testimony AT&T's request for  
11 unbundled NIDs, loops and switches using the FCC's definition of  
12 technical feasibility.

13

14 **Q. WHAT ARE THE PRICING STANDARDS UNDER THE**  
15 **TELECOMMUNICATIONS ACT OF 1996 AND THE FCC'S ORDER?**

16 **A.** Under section 252(d) of the Act, State commissions are given the  
17 authority to establish prices for unbundled network elements--  
18 including the NID, the loop, and the switch--pursuant to the  
19 following pricing standards:

20

21 (1) INTERCONNECTION AND NETWORK ELEMENT  
22 CHARGES. -- Determinations by a State commission  
23 of the . . . just and reasonable rate for the network  
24 elements for purposes of [section 251(c)(3)] --

25

1 (A) shall be (i) based on the cost (determined  
2 without reference to a rate-of-return or other rate-  
3 based proceeding) of providing the interconnection  
4 or network element (whichever is applicable), and (ii)  
5 nondiscriminatory, and  
6 (B) may include a reasonable profit.

7 (Act at § 252(d)(1)(A)-(B).)

8  
9 Despite the Act's plain language granting the States the authority  
10 to set prices for unbundled elements, the FCC adopted rules  
11 requiring unbundled network elements to be priced at Total  
12 Element Long Run Incremental Cost ("TELRIC") plus a reasonable  
13 share of joint and common costs. GTE disagrees with the FCC's  
14 authority to make such a decision. The pricing methodology as  
15 defined and applied by the FCC, and GTE's position on this issue  
16 is set forth in the Direct Testimony and associated Report of  
17 David S. Sibley.

18

19 **Q. WHAT ARE THE APPROPRIATE STANDARDS FOR COST**  
20 **RECOVERY?**

21 **A.** In addition to the question of appropriate pricing for unbundled  
22 elements, the Commission must identify the appropriate cost  
23 recovery mechanisms where GTE is required to modify its  
24 network to accommodate AT&T's requests for interconnection  
25 and unbundling.

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Many of AT&T's requests, including its requests for loop and switch unbundling, require significant modifications to GTE's existing networks, and in many instances require new technologies to be developed and deployed. The question, of course, is who should bear the cost of these modifications and technologies.

In its rules, the FCC rejected the ILECs' position that requesting carriers "take the ILEC networks as they find them," and requires ILECs to take "affirmative steps" to modify their existing facilities to meet the requirements of requesting carriers. (See, e.g. Order at ¶ 382.) GTE disagrees with the FCC's decision to require ILECs to take affirmative steps to modify their networks. But assuming, *arguendo*, the FCC's decision is lawful, the FCC itself recognizes that the requesting carrier must bear the cost of compensating the ILEC for modifications (See, e.g., Order at ¶ 225 ("as long as new entrants compensate incumbent LECs for the economic cost of the higher quality interconnection, competition will be promoted"); ¶ 382 (the requesting carrier must bear the cost of compensating the ILEC for loop conditioning); ¶ 393 ("the new entrant bears the cost connecting its NID to the incumbent LEC's NID"); ¶ 751 (ILECs may recover costs of collocation cages)). Simply put, if an alternative local exchange carrier ("ALEC") demands changes to an ILEC's

1 network, it must pay for them.

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2  
3 AT&T, however, does not agree with this principle; instead, AT&T  
4 would have GTE and its customers pay for modifications to  
5 facilitate interconnection with AT&T's network. But the FCC's  
6 rules are quite clear on this point:

7 [w]e conclude that the term "technically  
8 feasible" refers solely to technical or  
9 operational concerns, rather than economic,  
10 space, or site considerations. We further  
11 conclude that the obligations imposed by  
12 sections 251(c)(2) and 251(c)(3) include  
13 modifications to incumbent LEC facilities to  
14 the extent necessary to accommodate  
15 interconnection or access to network  
16 elements.

17 \* \* \*

18 We find that the 1996 Act bars consideration  
19 of costs in determining "technically feasible"  
20 points of interconnection or access [to  
21 unbundled elements]... Of course, a  
22 requesting carrier that wishes a "technically  
23 feasible" but expensive interconnection  
24 would, pursuant to section 252(d)(1), be  
25 required to bear the cost of that

1 interconnection, including a reasonable profit.

2 (Order at ¶ 198 and 199 (emphasis added)).

3

4 Similarly, in explaining that site restrictions do not represent a  
5 "technical" obstacle for purposes of interconnection or unbundling  
6 where it is possible for a site to be expanded, the FCC expressly  
7 recognized that "the requesting party would bear the cost of the  
8 necessary expansion." (Order at ¶ 201 (emphasis added).)

9

10 In sum, AT&T must bear the costs associated with all of its  
11 modifications. Indeed, to impose these costs on the ILEC would  
12 result in an unconstitutional taking of ILEC property without just  
13 compensation. This issue is discussed in greater detail in the  
14 Takings Report included in GTE's Response.

15

16 Finally, although the FCC adopted an overly broad definition of  
17 technical feasibility, it recognized that a request for  
18 interconnection or unbundled elements that pose threats to  
19 network reliability and security are "necessarily contrary" to a  
20 finding of technical feasibility:

21

22

23

24

25

[w]e...conclude, however, that legitimate  
threats to network reliability and security  
must be considered in evaluating the technical  
feasibility of interconnection or access to  
incumbent LEC networks. Negative network



1 reliability effects are necessarily contrary to a  
2 finding of technical feasibility. Each carrier  
3 must be able to retain responsibility for the  
4 management, control, and performance of its  
5 own network.

6 (Order at ¶ 203.)

7

8 As discussed below, assuming the Commission adopts the FCC's  
9 definition of technical feasibility, and assuming this definition  
10 withstands judicial scrutiny, GTE agrees to perform the necessary  
11 modifications requested by AT&T pending appeal, provided that  
12 such modifications will not interfere with GTE's current or future  
13 network configurations, and provided further that GTE will  
14 recover all the costs of such modifications from AT&T.

15

16 **Q. PLEASE DISCUSS THE POSITIONS OF THE PARTIES RELATIVE**  
17 **TO THE LOOP.**

18 **A. AT&T has proposed that the local loop be divided into four**  
19 **elements that can be offered separately or in combination: (1) the**  
20 **NID; (2) Loop Distribution; (3) Loop Feeder; and (4) the Loop**  
21 **Concentrator/Multiplexer.**

22

23 The FCC does not require ILECs to permit a new entrant to  
24 connect its loops directly to the ILEC's NID. (Order at ¶ 394.)  
25 Instead, the FCC requires requesting carriers to connect their own

1 NID to the ILEC's NID. GTE, however, will do more than what the  
2 FCC requires: GTE will allow AT&T to connect its loops directly  
3 to GTE's NID, provided that such interconnection does not  
4 adversely affect GTE's network.

5  
6 GTE also agrees to unbundle the loop from the switch; provided,  
7 however, that AT&T (1) notify GTE when it intends to deploy any  
8 service-enhancing copper cable technology (e.g., HDSL, ISDN)  
9 and, if so, certify that such technology will not interfere with  
10 GTE's existing or future technology within a given cable sheath  
11 or other GTE facility; and (2) pays all the costs associated with  
12 unbundling the loop from the switch, including the costs of  
13 testing AT&T's technology and the costs of any loop  
14 conditioning.

15  
16 Finally, GTE agrees to provide as separate elements the loop  
17 distribution, loop feeder, and loop concentrator/multiplexer on an  
18 individual case-by-case basis, subject to the above conditions  
19 regarding total loop unbundling.

20

21 **Q. PLEASE DISCUSS THE POSITIONS OF THE PARTIES RELATIVE**  
22 **TO THE SWITCH.**

23 **A. AT&T requests that GTE unbundle its switch so that AT&T can**  
24 **route its customers to AT&T's OS and DA platforms, and**  
25 **dedicated trunk groups linked to any interexchange carriers of**

1 AT&T's designation. AT&T apparently believes that such  
2 unbundling is technically feasible because GTE's switches already  
3 provide this capability, and all AT&T seeks to do is provide GTE  
4 with a service order.

5  
6 AT&T's request is predicated upon an erroneous assumption.  
7 AT&T seeks the ability to do much more than just provide GTE  
8 with a service order; indeed, AT&T wants GTE to establish  
9 separate trunk groups so that AT&T can route its customers' calls  
10 to AT&T-owned and operated OS and DA centers (or those  
11 designated by AT&T). This request is not technically feasible,  
12 because it ignores the limited switch capacity available to meet  
13 AT&T's demands. Moreover, AT&T ignores the fact that  
14 substantial costs will be incurred to provide existing switches  
15 with the capability of performing the routing requested by AT&T.  
16 Finally, unbundling the switch as AT&T requests will permit AT&T  
17 to avoid access charges, because GTE will have no way of  
18 knowing whether a call routed by AT&T is a local call, an  
19 intraLATA call, or a long-distance call. The Act and the FCC's  
20 rules require AT&T to continue paying certain access charges for  
21 a limited time, but AT&T's proposal will enable it to do indirectly  
22 that which it cannot do directly.

23  
24 AT&T also requests that the GTE network allow AT&T operators  
25 to perform Busy Line Verification and Busy Line Interrupt

1 functions. Although this request is technically feasible, allowing  
 2 AT&T operators to perform these functions will require GTE to  
 3 add equipment to its end office switches and direct trunk groups  
 4 in order to record and bill this service. Accordingly, AT&T must  
 5 pay GTE's costs of adding this equipment, as well as the  
 6 recurring cost of providing the service.

7  
 8 Given the problems presented by AT&T's request, GTE will agree  
 9 to switch unbundling only where (1) AT&T agrees to pay all the  
 10 costs associated with near-term unbundling, and its share of the  
 11 costs of long-term unbundling solutions, including the costs of  
 12 adding new capacity, conditioning existing switches and  
 13 necessary enhancements and modifications to ordering,  
 14 provisioning and billing systems; and (2) AT&T establishes a  
 15 method to ensure that it pays all the access charges required by  
 16 law.

17  
 18 **Q. WHAT IS GTE'S POSITION ON THE NID?**

19 **A.** GTE will allow AT&T to connect its loops directly to GTE's NID,  
 20 provided that (1) such interconnection does not adversely affect  
 21 the reliability and security of GTE's network, (2) GTE recovers all  
 22 costs associated with unbundling its NID, and (3) GTE receives  
 23 "just and reasonable" compensation from AT&T for the unbundled  
 24 NID.

25

1 Q. WHAT IS GTE'S POSITION ON LOOP AND SUB-LOOP  
2 UNBUNDLING?

3 A. GTE's loop plant consists of several different types of facilities  
4 used to connect customers to their central office. This plant is  
5 typically designed in one of two ways: (1) a feeder/distribution  
6 design; or (2) a main cable-fed design.

7  
8 Under a feeder/distribution design, the local loop begins at the  
9 NID and extends to a pedestal, where it is aggregated with a  
10 handful of other nearby subscriber lines into a single cable sheath.  
11 The cable containing these aggregated lines extends from the  
12 pedestal to a distribution box, where it is aggregated with other  
13 cables into a single higher capacity cable, or "feeder" cable. The  
14 feeder cable extends to the central office, where it is connected  
15 to the MDF.

16  
17 In a main cable-fed design, the feeder cable begins at the MDF of  
18 the central office and terminates at the NID located on the  
19 customer's premises. With this type of design, there may not be  
20 a distinct physical point where a feeder loop section ends and a  
21 distribution section begins. A cable-fed design is typically used  
22 when service is being provided to a large business or an office  
23 building where many individual subscribers can be served on the  
24 customer side of the NID.

25

1           Because GTE's network includes both types of designs, any  
2           request for sub-loop unbundling must be examined on a case-by-  
3           case basis. In addition, there are special loop designs within any  
4           given feeder/distribution design or main cable-fed design that  
5           must be considered in determining whether and how sub-loop  
6           unbundling may be achieved. For example, feeder plant can be  
7           provisioned using "pair gain" electronics. If the pair gain uses a  
8           central office terminal configuration (a double-ended pair gain),  
9           there exists a physical point of interface with the MDF at the  
10          serving wire center. But if the pair gain device uses a direct  
11          connect configuration (a single-ended pair gain) (the FCC's Order  
12          refers to this type of device as an integrated digital loop carrier  
13          ("IDLC")), then the wire center connection is made directly into  
14          the switch by way of a DS-1 interface. In this latter case, there  
15          is no connection or access to the MDF; therefore, additional  
16          equipment such as channel banks must be installed in order to  
17          unbundle the loop.

18  
19          This point is illustrated in the following example. Assume that  
20          AT&T requests unbundled loops from a central office where loops  
21          are provisioned by an IDLC, which is a type of single-ended pair  
22          gain device as shown on Exhibit No. AEW-3.

23  
24          As you can see on the Exhibit, many individual telephone lines  
25          (subscriber lines) are aggregated at a remote unit, such as an

1 Integrated Digital Loop Concentrator ("IDLC"), which is connected  
2 to the central office by a single, high-capacity transmission  
3 facility. (The central office is the host to the remote unit.)  
4 Although only one IDLC is depicted here, there may be several  
5 IDLCs serving one central office. In this way, more efficient use  
6 is made of the network -- instead of having each individual  
7 subscriber line extended to the central office, the lines are  
8 aggregated at the IDLC, where messages can be carried over one  
9 facility to the central office. The use of IDLCs is a common  
10 practice in the telecommunications industry, and reflects well-  
11 settled principles of network engineering.

12  
13 GTE's network -- including the deployment of IDLCs -- was  
14 engineered on the assumption that a single, integrated company  
15 would provide local telephone service to every subscriber. The  
16 use of IDLCs thus enables GTE and other ILECs to achieve  
17 economies of scale. Now, however, much of GTE network must  
18 be "reengineered" to accommodate AT&T's requests for  
19 unbundled loops. In order to unbundle local loops at central  
20 offices that use IDLCs, it is necessary to add channel banks at  
21 both the IDLC site and at the central office (this process does not  
22 apply to next generation DLC ("NGDLC") technology).

23  
24 The cost of this reengineering will be significant. In Florida,  
25 GTE's network consists of over 2 million access lines -- all of

1 which are served by numerous central office switches and many  
2 if not most of which are also served by a variety of ILDCs and  
3 similar remote switching units, or pair gain devices. AT&T's  
4 request for unbundled loops indicates that AT&T wants the ability  
5 to obtain unbundled loops at all GTE central offices and wants  
6 these loops provisioned immediately. To do so, GTE would have  
7 to add either central office line cards or channels banks to those  
8 lines served by IDLCs, at a cost that could amount to many  
9 millions of dollars.

10  
11 Of course, if AT&T needs all the local loops in a given central  
12 office unbundled, there may be more cost-effective methods of  
13 provisioning the unbundled loops. But in order for the parties to  
14 determine the best method, AT&T must notify GTE of the specific  
15 central offices or specific loops it wants unbundled, and the  
16 parties must discuss the feasibility of AT&T's requests on a case-  
17 by-case basis. AT&T's "one size fits all" approach simply does  
18 not work where different types of loop distribution and feeder  
19 facilities are deployed throughout the network. And this is  
20 especially true when one considers that there exist no formal  
21 industry standards applicable to the cross-connection of ILEC and  
22 third-party feeder and distribution facilities. For example,  
23 standards for voltage, impedance, cross-talk, and other  
24 transmission characteristics have not yet been established for  
25 sub-loop elements, and the lack of such standards is one of the



1 reasons that loop and sub-loop interconnection must be reviewed  
2 for technical compatibility on a case-by-case basis.

3  
4 Also, when considering sub-loop unbundling for  
5 feeder/distribution design plant, the integrity of the network  
6 would be put at significant risk if AT&T and other carriers were  
7 given unrestricted access to GTE's cross-connect locations in  
8 order to connect and disconnect their facilities. For example, the  
9 network could be physically damaged at the cross-connect  
10 locations due to the intentional or inadvertent acts by non-GTE  
11 personnel. Furthermore, if appropriate security precautions are  
12 not taken, a third party could establish connections for  
13 eavesdropping, wiretap and toll fraud purposes. GTE's outside  
14 plant personnel are constantly on the lookout for unauthorized  
15 connections to the Company's facilities. Today, all connections  
16 to GTE's outside plant facilities belong to and are controlled by  
17 GTE, making such security checks possible. But if multiple  
18 carriers are given access to these facilities, it would be difficult to  
19 determine who is responsible for unauthorized connections.

20  
21 Given these security concerns, GTE does not believe that sub-  
22 loop unbundling is technically feasible. This conclusion is  
23 supported by the FCC's rules, which provide that:

24 legitimate threats to network reliability and  
25 security must be considered in evaluating the

1 technical feasibility of interconnection or  
2 access to incumbent LEC networks. Negative  
3 network reliability effects are necessarily  
4 contrary to a finding of technical feasibility.  
5 Each carrier must be able to retain  
6 responsibility for the management, control,  
7 and performance of its own network.

8 (Order at ¶ 203 (emphases added).)

9  
10 At the very least, if sub-loop unbundling is ordered then AT&T  
11 must be required to adhere to reasonable security and reporting  
12 procedures that will minimize threats to network reliability and  
13 security (assuming such procedures could be developed), and  
14 AT&T must bear responsibility for network problems and security  
15 breaches caused by AT&T's negligence. Furthermore, it is  
16 essential that all work performed by non-GTE personnel at these  
17 facilities be promptly and accurately reported to GTE. In this  
18 way, GTE's facility assignment records can be updated to ensure  
19 that facility records are accurate and can be relied upon for  
20 maintaining existing subscriber lines or adding new ones.

21  
22 AT&T also demands that the installation, maintenance and repair  
23 intervals applicable to GTE's "bundled" loops must also be made  
24 available to AT&T's unbundled loops that are contained in the  
25 same class of loops located in the same geographic area. Here,

1 too, AT&T's request ignores the effect of loop unbundling upon  
2 installation, maintenance and repair of subscriber lines. In the  
3 GTE network, approximately 20% of customers are connected to  
4 central offices served by IDLCs. But with loop unbundling and  
5 the introduction of multiple providers, the overlay point-to-point  
6 transport capacity (such as the D4 banks) will be exhausted  
7 sooner than planned. Therefore, customers will experience  
8 service delays unless additional capacity is added to  
9 accommodate AT&T's requests. If additional capacity is required,  
10 then AT&T and the other requesting carriers must pay for the  
11 costs associated with this additional capacity.

12

13 **Q. WHAT IS GTE'S POSITION ON SWITCH UNBUNDLING?**

14 **A** AT&T requests that GTE unbundle its switch so that AT&T can  
15 route its customers to AT&T's OS and DA platforms, and  
16 dedicated trunk groups linked to any interexchange carrier of  
17 AT&T's designation. AT&T apparently represents that such  
18 unbundling is technically feasible because GTE's switches already  
19 provide this capability, except that GTE will receive a service  
20 order from the new carrier's service center as opposed to its own  
21 GTE service centers.

22

23 AT&T misinterprets the nature of the service provisioning and  
24 activation process. In order for calls to be routed to specific trunk  
25 groups as AT&T requests, appropriate Line Class Codes must be

1 identified and activated (AT&T states that it may need between  
2 32-320 LCCs per switch, but it does not set forth a method for  
3 identifying the required LCC value for each AT&T customer).  
4 More specifically, AT&T wants to offer its end-users the ability to  
5 have their OS, DA, and long-distance calls routed to separate  
6 providers. To offer this functionality, a unique LCC value must be  
7 determined for every permutation of the required options, and the  
8 LCCs must then be placed on each customer's switch entry. GTE  
9 would be required to perform a manual search to find the required  
10 LCC values. The time and labor needed to accomplish this task  
11 would depend on (1) the number of routing possibilities AT&T  
12 requests for a given switch, and (2) the number of different  
13 routing options AT&T makes available to its customers.

14  
15 AT&T also ignores the fact that substantial costs will be incurred  
16 to provide existing switches with the capability of performing the  
17 routing requested by AT&T. It is difficult to estimate the costs of  
18 increasing switch capacity because these costs will vary  
19 depending on the particular switch in question. However, GTE  
20 believes these costs could run to many tens of millions of dollars  
21 in order to meet AT&T's demands for separate OS and DA trunks  
22 alone. The interexchange trunk routing requested by AT&T would  
23 increase these costs even further.

24  
25 AT&T's request also could exhaust the capacity of the switch and

1 adversely affect network capabilities. As more LCCs and more  
2 routing options are added, the switch must perform more "look  
3 ups" and thereby perform more work than before. As a result,  
4 the switch will begin to operate at lower speeds with its ever-  
5 increasing workload resulting in call completion performance  
6 problems. Moreover, if switch capacity is exceeded, someone  
7 would be required to write the computer software programs  
8 necessary to increase capacity. Here again, AT&T does not  
9 explain who will perform and pay for these capacity upgrades.

10

11 In addition to the concerns discussed above, the attached letter  
12 from Lucent Technologies (Exhibit No. AEW-4) -- the  
13 manufacturer of the 5-ESS switch referenced in AT&T's testimony  
14 -- sets forth a number of issues that must be addressed in  
15 implementing the "LCC solution" advocated by AT&T. The issues  
16 identified by Lucent include (1) the need for every existing switch  
17 to be preconditioned, (2) the need to evaluate the potential  
18 "memory exhaust impact" upon the switch, (3) the class of  
19 service limitations that could result, and (4) the unavailability of  
20 local 555 service. In its letter, Lucent acknowledges that a long-  
21 term solution to the LCC problem is needed, and notes that once  
22 a solution is available, "[any] recent change effort should be  
23 reversed to restore memory resources," and that "effort will be  
24 required to move all alternate provider lines into original line  
25 classes, remove all screening, and other database work" (See

1 Lucent Letter at 4 - Exhibit AEW-4). Such a long-term solution  
2 will very likely involve the development of industry standards from  
3 which equipment manufacturers, such as Lucent Technologies,  
4 can design and build products. Such standards do not exist  
5 today. In other words, AT&T's proposal for switch unbundling  
6 requires GTE first to alter its existing switches to accommodate  
7 AT&T, and then to "undo" what GTE has done when a permanent  
8 solution is found. And, of course, GTE must pay for all this under  
9 AT&T's position.

10  
11 Not only does AT&T's proposal for routing to AT&T's DA and OS  
12 platforms present serious and costly operational problems, its  
13 request for unbundling of GTE's DA database would also present  
14 technical difficulties that would, at the very least, require AT&T  
15 to cover GTE's costs of implementation. GTE's DA database is  
16 designed for access by only one service provider. To allow for  
17 access by multiple service providers, GTE would be required to  
18 establish a gateway and firewalls to ensure protection of  
19 proprietary information. In addition, the database would have to  
20 be modified to add access ports. Thus, implementation of access  
21 to GTE's DA database is dependent on vendor delivery of  
22 modifications and adequate cost recovery.

23  
24  
25 Additionally, because there are distinct and specific technical

1 interface requirements between operator position equipment and  
 2 GTE's DA database, AT&T would be required to ensure that its  
 3 equipment can interface with GTE's DA database, and  
 4 compensate GTE for any modifications GTE might make in order  
 5 to ensure compatibility.

6  
 7 AT&T has asked to establish Busy Line Verify (BLV) and  
 8 Emergency Interrupt, also referred to as Busy Line Interrupt (BLI)  
 9 as a required capability of AT&T operators. AT&T apparently  
 10 believes that it should be able to deploy segregated one-way  
 11 trunk groups from its operator services positions to GTE's end  
 12 offices to perform these functions without having to call the GTE  
 13 operator on an 'inward' basis. BLV and BLI interoperability  
 14 between LECs utilize common verify and interrupt trunk groups.  
 15 BLV and BLI charges are recorded and billing records initiated at  
 16 the operator services switch. However, AT&T's request would  
 17 require recording and billing at the end office. GTE would have  
 18 to provision direct trunk groups with the capability of recording  
 19 and billing in order to allow AT&T's operators to perform BLV and  
 20 BLI functions. GTE would, of course, expect AT&T to pay for the  
 21 cost of implementing this functionality at the end office switch.

22  
 23 **Q. WILL YOU PLEASE SUMMARIZE YOUR TESTIMONY?**

24 **A.** For all the reasons I discussed above, GTE will agree to switch  
 25 unbundling only where (1) AT&T agrees to pay all the costs

1 associated with near-term, interim unbundling, and its share of  
2 the costs of long-term unbundling solutions, including the costs  
3 of adding new capacity or conditioning existing switches; (2) all  
4 users pay for the long-term industry standard solution; and (3)  
5 AT&T establishes a method to ensure that it pays all the access  
6 charges required by law.

7

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 **A. Yes, it does.**

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**GTE FLORIDA INCORPORATED**

**DIRECT TESTIMONY OF ALBERT E. WOOD, JR.**

**DOCKET NO. 960980-TP**

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

A. My name is Albert E. Wood, Jr. My business address is 545 E. John Carpenter Freeway, Irving, TX, 75062.

**Q. ARE YOU THE SAME ALBERT E. WOOD, JR. WHO FILED DIRECT TESTIMONY IN DOCKET 960847-TP, THE ARBITRATION BETWEEN AT&T AND GTE?**

A. Yes, that Testimony was filed on September 10, 1996.

**Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?**

A. That Testimony presented GTE's positions on the open issues between it and AT&T with regard to AT&T's requests for unbundled elements and wholesale services.

**Q. DOES MCI'S PETITION PRESENT ESSENTIALLY THE SAME ISSUES AS AT&T'S?**

A. Yes, I believe MCI and AT&T have requested fundamentally the same level of unbundling and terms for wholesale provision of network elements. The same principles covered in my Direct Testimony in the AT&T proceeding thus apply equally to MCI. For that reason, it would

1 be unduly repetitive to submit wholly new testimony in this MCI  
2 arbitration. I am thus adopting my Direct Testimony in the AT&T  
3 arbitration as my Direct Testimony in this MCI arbitration. This  
4 approach is consistent with the Commission's consolidation of the two  
5 arbitration dockets into a single proceeding. If there are any  
6 outstanding MCI-specific issues or positions, I will address them in  
7 my Rebuttal Testimony.

8

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

10 **A. Yes.**

11

12

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**GTE FLORIDA INCORPORATED****REBUTTAL TESTIMONY OF LARRY HARTSHORN****DOCKET NO. 960847-TP**

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

A. My name is Larry Hartshorn. My business address is One GTE Place, Thousand Oaks, California 91362.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

A. I am employed by GTE California Incorporated (GTE) as Manager-Network Design.

**Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

A. I received my Bachelor of Science degree in electrical engineering from the University of California at Davis. I have worked in the telecommunications industry for over 27 years. I have been with GTE for over 22 years, and have held positions in both manufacturing and telephone operations. I started with GTE as an applications engineer specializing in microwave radio and later served as Product Manager for transmission and radio products. Between 1987 and 1993, I held manager positions in both engineering and planning for GTE Hawaiian Telephone Company. I joined GTE California in 1993 as

1 Network Engineering Manager and assumed my current position of  
2 Network Design Manager in 1994.

3

4 **Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT**  
5 **POSITION?**

6 A. I plan the growth and modernization of the network infrastructure for  
7 GTE, including outside plant cable and electronics, central office  
8 equipment, and interoffice facilities as well as developing  
9 infrastructure necessary to deliver new products and services to GTE  
10 customers.

11

12 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY STATE**  
13 **COMMISSIONS?**

14 A. Yes. I have testified in several matters in both Hawaii and California.

15

16 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

17 A. No. I did not. But I am hereby adopting the Direct Testimony of  
18 GTEFL witness Albert E. Wood, Jr. This witness substitution is  
19 necessary because the GTE Operating Companies are involved in so  
20 many arbitration hearings around the country at the same time.  
21 Given this situation, it is inevitable that conflicts will arise for the  
22 limited number of witnesses available to testify on any given subject  
23 matter.

24

25

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

2 A. I will respond to certain unbundling and related demands by AT&T  
3 and MCI.

4

5 Q. AT&T, AT LEAST, HAS ASKED FOR UNBUNDLED ACCESS AT  
6 THE USER NETWORK INTERFACE (UNI) DATA NETWORKING  
7 LEVEL. IS GTEFL WILLING TO PROVIDE SUCH ACCESS?

8 A. Yes. GTE has agreed to allow unbundled access at the UNI data  
9 networking level.

10

11 Q. DOES GTEFL AGREE TO ALLOW UNBUNDLED ACCESS AT THE  
12 NETWORK-TO-NETWORK INTERFACE (NNI) DATA  
13 NETWORKING LEVEL, AS AT&T HAS ALSO REQUESTED?

14 A. GTEFL has agreed to allow this type of unbundled access on a case-  
15 by-case, negotiated basis, due to potential protocol interface  
16 differences that may exist between network technologies.

17

18 Q. SHOULD GTEFL BE REQUIRED TO PROVIDE DARK FIBER AS  
19 REQUESTED BY MCI'S WITNESS CAPLAN AND AT&T'S WITNESS  
20 CRAFTON?

21 A. No. Dark or dim fiber is not a network element, and so is not subject  
22 to unbundling. The Act defines "network element" to include only  
23 those facilities that are "used in the provision of a telecommunications  
24 service." (Act at sec. 3(45) [emphasis added].) Because ILECs do  
25 not use dark fiber in their networks—transport circuits must be "lit" to

1 be used—dark fiber does not meet the statutory definition. Therefore,  
2 GTEFL should not be compelled to provide it to AT&T and MCI in this  
3 proceeding.

4

5 **Q. CAN YOU RESPOND TO AT&T'S DEMAND FOR LOOP TESTING?**

6 **A.** Yes. AT&T has requested that GTEFL perform loop testing in  
7 accordance with AT&T's standards on each of GTEFL's loops before  
8 AT&T initiates service. AT&T also demands that GTEFL provide  
9 complete reports of the test results. These are unreasonable  
10 demands. In a resale environment, GTEFL will provide the same  
11 quality service to AT&T's customers as it provides to other ALECs  
12 and to itself. GTEFL will ensure that the network meets its own  
13 parameters, but it should not be required to satisfy unique—different  
14 or higher—standards for each ALEC, as AT&T's would have it do.  
15 GTEFL does not routinely test every loop on a new installation, and  
16 should not be forced to do so by AT&T. Reporting parameter  
17 information to AT&T for its concurrence or validation in the instances  
18 GTEFL does perform tests is also unwarranted and unnecessary. As  
19 noted, the same standards will apply to service provided to both  
20 GTEFL and AT&T end users.

21

22

23 If AT&T raises the loop testing question in an unbundling, rather than  
24 resale, context, then AT&T must notify GTEFL of the service-  
25 enhancing technologies it plans to use, so that it does not interfere

1 with GTEFL or other network users as discussed more fully in my  
2 direct testimony.

3

4 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

5 **A. Yes, it does.**

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**GTE FLORIDA INCORPORATED**  
**REBUTTAL TESTIMONY OF LARRY HARTSHORN**  
**DOCKET NO. 960980-TP**

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

A. My name is Larry Hartshorn. My business address is One GTE Place, Thousand Oaks, California 91362.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

A. I am employed by GTE California Incorporated (GTE) as Manager-Network Design.

**Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

A. I received my Bachelor of Science degree in electrical engineering from the University of California at Davis. I have worked in the telecommunications industry for over 27 years. I have been with GTE for over 22 years, and have held positions in both manufacturing and telephone operations. I started with GTE as an applications engineer specializing in microwave radio and later served as Product Manager for transmission and radio products. Between 1987 and 1993, I held manager positions in both engineering and planning for GTE Hawaiian Telephone Company. I joined GTE California in 1993 as



1 Network Engineering Manager and assumed my current position of  
2 Network Design Manager in 1994.

3

4 **Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT**  
5 **POSITION?**

6 A. I plan the growth and modernization of the network infrastructure for  
7 GTE, including outside plant cable and electronics, central office  
8 equipment, and interoffice facilities as well as developing  
9 infrastructure necessary to deliver new products and services to GTE  
10 customers.

11

12 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY STATE**  
13 **COMMISSIONS?**

14 A. Yes. I have testified in several matters in both Hawaii and California.

15

16 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

17 A. No. I did not. But I am hereby adopting the Direct Testimony of  
18 GTEFL witness Albert E. Wood, Jr. This witness substitution is  
19 necessary because the GTE Operating Companies are involved in so  
20 many arbitration hearings around the country at the same time.  
21 Given this situation, it is inevitable that conflicts will arise for the  
22 limited number of witnesses available to testify on any given subject  
23 matter.

24

25

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

2       **A.    I will respond to certain unbundling and related demands by AT&T**  
3       **and MCI.**

4

5       **Q.    AT&T, AT LEAST, HAS ASKED FOR UNBUNDLED ACCESS AT**  
6       **THE USER NETWORK INTERFACE (UNI) DATA NETWORKING**  
7       **LEVEL. IS GTEFL WILLING TO PROVIDE SUCH ACCESS?**

8       **A.    Yes. GTE has agreed to allow unbundled access at the UNI data**  
9       **networking level.**

10

11       **Q.    DOES GTEFL AGREE TO ALLOW UNBUNDLED ACCESS AT THE**  
12       **NETWORK-TO-NETWORK    INTERFACE    (NNI)    DATA**  
13       **NETWORKING LEVEL, AS AT&T HAS ALSO REQUESTED?**

14       **A.    GTEFL has agreed to allow this type of unbundled access on a case-**  
15       **by-case, negotiated basis, due to potential protocol interface**  
16       **differences that may exist between network technologies.**

17

18       **Q.    SHOULD GTEFL BE REQUIRED TO PROVIDE DARK FIBER AS**  
19       **REQUESTED BY MCI's WITNESS CAPLAN AND AT&T's WITNESS**  
20       **CRAFTON?**

21       **A.    No. Dark or dim fiber is not a network element, and so is not subject**  
22       **to unbundling. The Act defines "network element" to include only**  
23       **those facilities that are "used in the provision of a telecommunications**  
24       **service." (Act at sec. 3(45) [emphasis added].) Because ILECs do**  
25       **not use dark fiber in their networks--transport circuits must be "lit" to**

1 be used--dark fiber does not meet the statutory definition. Therefore,  
2 GTEFL should not be compelled to provide it to AT&T and MCI in this  
3 proceeding.

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5 **Q. CAN YOU RESPOND TO AT&T'S DEMAND FOR LOOP TESTING?**

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7 accordance with AT&T's standards on each of GTEFL's loops before  
8 AT&T initiates service. AT&T also demands that GTEFL provide  
9 complete reports of the test results. These are unreasonable  
10 demands. In a resale environment, GTEFL will provide the same  
11 quality service to AT&T's customers as it provides to other ALECs  
12 and to itself. GTEFL will ensure that the network meets its own  
13 parameters, but it should not be required to satisfy unique--different  
14 or higher--standards for each ALEC, as AT&T's would have it do.  
15 GTEFL does not routinely test every loop on a new installation, and  
16 should not be forced to do so by AT&T. Reporting parameter  
17 information to AT&T for its concurrence or validation in the instances  
18 GTEFL does perform tests is also unwarranted and unnecessary. As  
19 noted, the same standards will apply to service provided to both  
20 GTEFL and AT&T end users.

21

22

23 If AT&T raises the loop testing question in an unbundling, rather than  
24 resale, context, then AT&T must notify GTEFL of the service-  
25 enhancing technologies it plans to use, so that it does not interfere

1 with GTEFL or other network users as discussed more fully in my  
2 direct testimony.

3

4 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

5 **A. Yes, it does.**

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**GTE FLORIDA INCORPORATED**

**DIRECT TESTIMONY OF DOUGLAS N. MORRIS**

**DOCKET 960847-TP**

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

A. My name is Douglas N. Morris. My business address is 600  
Hidden Ridge, Irving, TX, 75038.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

A. I am employed by GTE Telephone Operations as Senior Product  
Manager - Advanced Services.

**Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

A. I received a Bachelor of Science degree in Engineering, with a  
specialty in *Electrical Engineering*, from the University of South  
Florida (USF), Tampa, Florida, in 1971. After graduation, I began  
my career with GTE Florida in Tampa, Florida, as Central Office  
Equipment Engineer. After holding positions of increasing  
responsibility in Engineering and Planning in GTE Florida, I was  
promoted to GTE Service Corporation, Stamford, Connecticut, in  
1977, as Systems Engineer - Development. I held positions of  
increasing responsibility with GTE Service Corporation in Support  
Systems Planning, Capital Planning, Network Services Planning,  
and Business and Strategic Planning until 1988, when I

1 transferred to GTE Information Services, Tampa, Florida, as Senior  
2 Manager - Technical Planning. I moved to the GTE  
3 Telecommunication Services Incorporated business unit in 1990,  
4 as Industry Affairs Manager. In 1992, I transferred to GTE  
5 Telephone Operations in Irving, Texas, to assume my current  
6 position.

7  
8 I have obtained special knowledge and expertise of Signaling  
9 System 7 (SS7) technology through attendance at numerous  
10 courses and seminars presented by industry training experts (such  
11 as Bellcore), by participating in informational seminars held by  
12 switch and SS7 equipment manufacturers, and by working with  
13 GTE technical experts over the last 13 years.

14

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

16 **A.** My testimony presents GTE's position on unbundling of Signalling  
17 System 7 ("SS7") (as distinguished from the Advanced Intelligent  
18 Network ("AIN"), which is fundamentally different from SS7). I  
19 will first describe SS7, then restate the relevant provisions of the  
20 Act. I will next summarize the issues to be arbitrated and the  
21 parties' positions on each. Finally, I will set forth in detail GTE's  
22 position on unbundling SS7.

23

24 **Q. WHAT IS GTE'S GENERAL POSITION ON UNBUNDLING SS7 IN**  
25 **THIS ARBITRATION?**

1 A. The Telecommunications Act of 1996 (the Act) requires  
2 incumbent local exchange carriers (ILECs) to provide, on an  
3 unbundled basis, nondiscriminatory access to network elements  
4 at any technically feasible point. In its *First Report and Order*, the  
5 FCC interpreted the Act's unbundling provisions to require ILECs  
6 to provide unbundled access to Signaling Links (SLs) and  
7 Signaling Transfer Points (STPs). AT&T requests that GTE  
8 unbundle its SLs, STPs and Service Control Points (SCPs).  
9 However, the only physical point at which interconnection with  
10 an SS7 network is technically feasible without risking harm to  
11 the reliability and security of the network is the STP. SLs can be  
12 provided on an unbundled basis by interconnecting AT&T's  
13 Service Switching Points (SSPs) or STPs to GTE's signaling  
14 network at the STP.

15

16 **Q. WHAT IS SS7?**

17 A. SS7 is an advanced type of signaling. Signaling is the  
18 transmission of information required to direct and control the  
19 setup, administration and disconnection of a voice circuit. In  
20 other words, it is the communication of control information  
21 between elements of a communications network using a standard  
22 protocol understood by all signaling elements involved. Signaling  
23 functions include: (1) supervising (i.e., initiating a request for  
24 service such as on-hook or off-hook); (2) alerting (i.e., notification  
25 of activity on the circuit such as ringing); and (3) addressing (i.e.,

1 information provided to the communications system concerning  
2 the destination of the call, such as calling number via dial pulse,  
3 dual tone multi-frequency, or multi-frequency).

4

5 There are two broad types of signaling--the traditional, or in-band,  
6 signaling and the more advanced, out-of-band, signaling.

7

8 **Q. PLEASE DESCRIBE IN-BAND SIGNALING.**

9 **A.** Traditional signaling, shown in Exhibit No. DNM-1, carries signals  
10 between network nodes in the same circuit as the related voice  
11 conversation, and is referred to as "in-band" signaling. The  
12 signaling itself is carried by the voice circuit in the form of tones  
13 or other changes in electrical characteristics. Because the  
14 signaling and conversation cannot be transmitted at the same  
15 time, the signaling occurs before or after the conversation, or  
16 interrupts the conversation while it is in progress.

17

18 Some of the shortcomings of traditional signaling include its slow  
19 speed, its ability to transfer only limited information and long call  
20 set-up time, all of which result in an inefficient use of facilities  
21 and signaling equipment. Also, this type of signaling creates an  
22 opportunity for fraud because changes in the tones and electrical  
23 characteristics can be inserted into the circuit and affect the  
24 routing or content of other signaling information.

25



1    **Q.    HAS TECHNOLOGY OVERCOME THE PROBLEMS ASSOCIATED**  
2           **WITH IN-BAND SIGNALING?**

3    A.    Yes.  The problems with traditional or "in-band" signaling have  
4           been overcome by the development of common channel signaling  
5           (CCS).  As illustrated in Exhibit No. DNM-2, CCS is a technique  
6           of signaling which uses a common channel or network, separate  
7           from the voice channels used to transmit signals.  This is called  
8           "out-of-band" signaling because the signaling and voice paths use  
9           separate networks or facilities.  The advantages of "out-of-band"  
10          signaling over "in-band" signaling include the ability to handle a  
11          greater volume of signaling information, reduced call set-up times,  
12          more efficient trunk usage, and fraud reduction.  These  
13          advantages result in more efficient and faster connections, and  
14          facilitate the provision of new services for subscribers.

15

16   **Q.    HOW DOES OUT-OF-BAND SIGNALING RELATE TO SS7?**

17   A.    SS7 is a standardized network architecture and protocol used by  
18          the international telecommunications industry to accomplish CCS  
19          (or "out-of-band" signaling).  The SS7 network architecture and  
20          protocol were adopted by international and United States  
21          standards-setting bodies many years ago, and have been used in  
22          providing services or applications since their adoption.

23

24   **Q.    WHAT IS THE ROLE OF THE INDUSTRY STANDARDS IN**  
25          **PRACTICE?**

1     **A.**     Industry standards developed by United States standards bodies  
2             (e.g., American National Standards Institute or ANSI), and those  
3             developed by industry agreement (e.g., Bellcore), are developed  
4             in open fora with the participation of manufacturers, service  
5             providers, end users, government and other interested parties.  
6             The standards thus developed are recommended; there is no  
7             requirement or implementation schedule imposed on the user of  
8             the standards. The benefit of establishing standards is that  
9             participants in the network can reference a detailed description of  
10            a particular standard and understand what to expect from  
11            implementation of the standard. However, because other  
12            companies may have implemented other proprietary or  
13            non-standard approaches, this testimony addresses what can be  
14            accomplished within the GTE network and/or within current  
15            industry standards.

16

17     **Q.**     **PLEASE DESCRIBE THE STANDARD SS7 NETWORK**  
18             **ARCHITECTURE.**

19     **A.**     The SS7 network architecture, which is illustrated in Exhibit No.  
20             DNM-3, includes the following components:

21

- 22             •     **Signaling Point (SP).** The Signaling Point is any node on an  
23                    SS7 network (e.g., STP, SCP, end office, access tandem  
24                    or operator system). SPs have SS7 signaling capabilities,  
25                    but not necessarily the application software needed to

1 provide services to end-users.

2

3

- Service Switching Points (SSPs). Service Switching Points are SPs (end office, access tandem or operator system) which have both SS7 signaling capabilities and application-specific software to perform end-user services.

7

8

- Signaling Transfer Points (STP). The Signaling Transfer Point is a highly-reliable packet switch which is unique in the network in that it mediates, translates and routes signaling messages appropriately. STPs are provisioned in pairs to ensure reliability, redundancy and diversity. Each STP handles one-half of the signaling traffic so that if a link is damaged, the other STP in the mated pair is able to take over the signal switching and routing functions without compromising network reliability.

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- Service Control Point (SCP). The Service Control Point is a computer system which is linked to its primary STP pair and provides access to the SCP's related database or databases.

19

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24

There also are multiple links within the SS7 network, as shown in Exhibit No. DNM-3. These links can be described as follows:

25

- 1           •    **A-Links.** A-Links, or Access links, are two links (one to  
2                   each STP in the mated pair) from an SP or SSP to its  
3                   primary STP pair.
- 4
- 5           •    **B-Links.** B-Links, or Bridge Links, are four links between  
6                   two mated STP pairs at the same levels of the signaling  
7                   network hierarchy.
- 8
- 9           •    **C-Links.** C-Links, or Cross Links, may be as few as one  
10                  link between STPs of a mated pair.
- 11
- 12          •    **D-Links.** D-Links, or Diagonal links, are four links between  
13                  two mated STP pairs at different levels of the signaling  
14                  network hierarchy.
- 15
- 16          •    **E-Links.** E-Links, or Extension Links, are two links from an  
17                  SP or SSP to its secondary STP pair. E-Links are generally  
18                  not implemented in GTE's SS7 network.
- 19
- 20          •    **F-Links.** F-Links, or Fully Associated Links, may be as little  
21                  as one direct link between two SPs or SSPs. F-links are  
22                  generally not implemented in GTE's SS7 network.
- 23

24           The original distinctions between B-Links and D-Links have faded  
25           with the development of gateway screening and increased

1 signaling network interconnection. Because B-Links and D-Links  
2 perform the same functions (i.e., interconnecting two STP pairs),  
3 the terms B-Link and D-Link are often used interchangeably.

4

5 **Q. PLEASE DESCRIBE THE SS7 NETWORK PROTOCOL.**

6 A. By way of introduction, a protocol is a formal set of rules for the  
7 exchange of information between networks or among network  
8 facilities. Protocols insure that a sender and receiver of  
9 information are compatible and that communication between the  
10 two will be intelligible. A protocol also includes procedures for  
11 establishing and maintaining the communication path, and  
12 provides error detection, correction and retransmission, if  
13 required. Lastly, protocols consist of procedure definitions to  
14 establish the appropriate communications and definitions of  
15 messages and message exchanges.

16

17 As illustrated in Exhibit No. DNM-4, the SS7 protocol has five  
18 major sub-protocol layers--the Message Transfer Part (MTP); the  
19 Signaling Connection Control Part (SCCP); the ISDN (Integrated  
20 Services Digital Network) User Part (ISUP); the Transaction  
21 Capabilities Application Part (TCAP); and the Operations and  
22 Maintenance Application Part (OMAP).

23

24 **Q. WHAT ARE THE ROLES OF EACH OF THESE SUB-PROTOCOL**  
25 **LAYERS?**

1 A. ISUP and TCAP are the higher-level service or application  
2 interface components of the SS7 protocol. MTP provides  
3 functions for basic routing of signaling messages between  
4 signaling points. SCCP provides additional routing and  
5 management functions for transfer of messages other than call  
6 set-up between signaling points. ISUP provides for transfer of call  
7 set-up signaling information between signaling points. TCAP  
8 provides transfer of non-circuit related information between  
9 signaling points. OMAP provides the functions, test procedures  
10 and protocols for the operation, maintenance, administration and  
11 provisioning of the CCS signaling network and switching offices.

12

13 ISUP, TCAP and OMAP are often referred to as the higher layers  
14 of the protocol, since they use the other, or lower layers. The  
15 lower layers are used by the higher layers of the protocol to  
16 ensure reliable message transport, error detection, error  
17 correction, retransmission and destination translation and routing.

18

19 Services or applications which use MTP, SCCP, ISUP, TCAP  
20 and/or OMAP must use defined portions of the protocol in the  
21 provision of the service or application. Services or applications  
22 may use multiple sub protocols. Messages and procedures must  
23 be defined and standardized for each service or application.  
24 There are error detection and correction messages, as well as  
25 operations, maintenance and administrative messages

1 transversing the signaling network at any particular time. Uses of  
2 the individual messages and the message lengths vary  
3 significantly. For example, TCAP messages start at the overhead  
4 level of 21 bytes, and may be as long as approximately 272  
5 bytes. A single service may require multiple messages of various  
6 lengths, multiple uses of multiple protocol layers and multiple  
7 retries to attempt or complete a service.

8

9 **Q. HOW IS SS7 RELATED TO CLASS SERVICES?**

10 A. SmartCall services, which is the GTE trademark for a family of  
11 services, including services commonly referred to as CLASS  
12 (Custom Local Area Signaling Service), are performed by the end  
13 office switch in which the call is terminated. SS7 simply carries  
14 the calling party number in the transport of call set-up messages  
15 from the originating switch to the terminating switch. The  
16 terminating switch performs the SmartCall function subscribed to  
17 by the end user based on the calling party number transported by  
18 the SS7 network. The SS7 network does not perform CLASS  
19 services, but only carries calling party number information from  
20 the originating switch to the terminating switch, and the CLASS  
21 services are performed by the terminating switch.

22

23

24 **Q. WHAT ARE THE ILEC'S UNBUNDLING OBLIGATIONS UNDER THE**  
25 **ACT?**

1 A. The Act provides that each incumbent local exchange carrier  
2 (ILEC) has the duty "to provide, to any requesting  
3 telecommunications carrier for the provision of a  
4 telecommunications service, nondiscriminatory access to network  
5 elements on an unbundled basis at any technically feasible point."  
6 (Act at § 251 (c)(3) (1996). The Act further provides that,

7 [i]n determining what network elements should be  
8 made available for purposes of subsection (c)(3), the  
9 [FCC] shall consider, at a minimum, whether --  
10 (A) access to such network elements as are  
11 proprietary in nature is necessary; and  
12 (B) the failure to provide access to such network  
13 elements would impair the ability of the  
14 telecommunications carrier seeking access to  
15 provide the services that it seeks to offer. (Act at §  
16 251(d)(2)(1996).

17  
18  
19 The FCC has interpreted these provisions to require ILECs to  
20 provide access to SS7 by purchasing local switching services  
21 from the ILEC or by unbundling signaling links and STPs. (See  
22 Implementation of the Local Competition Provisions in the  
23 Telecommunications Act of 1996, First Report and Order, CC  
24 Docket No. 96-98, FCC 96-325 (released Aug. 8, 1996) ("Order")  
25 at ¶¶ 479-83.)



1    **Q.    PLEASE LIST THE ISSUES PRESENTED IN THIS ARBITRATION**  
2           **AND THE POSITIONS OF THE PARTIES ON EACH OF THEM.**

3    A.    The issues presented in this arbitration flow predominantly from  
4           the parties' differing views of the purposes and requirements of  
5           the Act. Notwithstanding GTE's willingness to interconnect SS7  
6           networks at the STP and to provide database access at the STP,  
7           GTE is not required to unbundle SCPs. The specific issues about  
8           which the parties disagree are as follows:

9

10           1.    *Is it technically feasible to unbundle GTE's SCP?*

11

12                   **AT&T's Position:** Unbundling of all signaling elements,  
13                   including the SCP, is technically feasible.

14

15                   **GTE's Position:** Although access to the databases related  
16                   to GTE's SCP may be made through a query to the SCP via  
17                   interconnection with the corresponding STP pair, it is not  
18                   currently technically feasible to provide SCPs on an  
19                   unbundled basis.

20

21           2.    *Is it technically feasible to unbundle GTE's STPs?*

22

23                   **AT&T's Position:** Unbundling of all signaling elements,  
24                   including the STPs, is technically feasible.

25

1           **GTE's Position:** Although interconnection between signaling  
2 networks is accomplished at GTE's STPs, it is not currently  
3 technically feasible to provide STPs on an unbundled basis.

4

5           3.    *Is it technically feasible to unbundle GTE's signaling links?*

6

7           **AT&T's Position:** Unbundling of all signaling elements,  
8 including the SLs, is technically feasible.

9

10          **GTE's Position:** It is not currently technically feasible to  
11 unbundle SLs within the GTE signaling network.  
12 Interconnection with GTE's signaling network is possible,  
13 however, via unbundled signaling links connecting the  
14 AT&T switch (SSP) or STP to GTE's STP.

15

16          4.    *Is it technically feasible to directly interconnect with GTE's*  
17 *SCPs?*

18

19          **AT&T's Position:** Direct interconnection with GTE's SCPs  
20 is technically feasible.

21

22

23          **GTE's Position:** Access to the databases related to GTE's  
24 SCP may be made only through a query to the SCP via  
25 interconnection with the corresponding STP pair.

1 Interconnection to the SCP directly, however, is not  
2 technically feasible.

3

4 I will elaborate on each of GTE's positions in the following  
5 discussion.

6

7 **Q. WHY IS DIRECT INTERCONNECTION TO GTE'S SCPs**  
8 **TECHNICALLY INFEASIBLE?**

9 A. Today, interconnection with an SS7 network occurs at the STP,  
10 which was designed to be the entry point to an SS7 network and  
11 to provide access to all SS7 functions. The STP is the only  
12 physical point at which interconnection is technically feasible.  
13 The STP directs SS7 message flow and provides the necessary  
14 mediation functions by preventing passage of inexecutable or  
15 dangerous messages to the SCPs, rejecting inconsistent messages  
16 regarding the same end user, and preventing unauthorized access  
17 to proprietary information. Neither the SCP nor any other point  
18 in the SS7 network can perform these functions. Indeed, the FCC  
19 has acknowledged that "STPs perform important network  
20 screening functions," which should not be "decentralized" and  
21 performed at every switch. (Expanded Interconnection with Local  
22 Tel. Co. Facilities, 9 FCC Rcd 2718, 2725 (1994).)

23

24 In addition, the SCP is not technically capable of routing SS7  
25 messages to multiple STP pairs. Access to the SCP and its

1 associated databases is technically feasible only through the STP  
2 pair associated with that SCP, whether the SCP is owned by the  
3 ILEC or another entity.

4

5 **Q. DOES THIS MEAN THAT OTHER CARRIERS CANNOT ACCESS**  
6 **GTE'S DATABASES?**

7 A. No. It only means that they have to do so through the STP.  
8 Unbundled access to GTE's 800 and LIDB databases is provided  
9 to other carriers today. This access requires interconnection to  
10 a GTE SS7 STP, using either GTE-provided links or links  
11 constructed by another provider. Providing direct access to the  
12 database or SCP raises network reliability issues due to the lack  
13 of industry standards. Standard interfaces exist for STP  
14 interconnection, but not for direct SCP interconnection.  
15 Interconnection to SCPs is a highly controversial issue at this  
16 time. Until appropriate mediation techniques and the associated  
17 software and hardware are developed to safeguard the network,  
18 access to SCPs or databases is not technically feasible.

19

20 **Q. ARE THERE OBJECTIVE LIMITATIONS ON THE LEVEL OF SS7**  
21 **UNBUNDLING THAT IS TECHNICALLY FEASIBLE?**

22 A. Yes. GTE's ability to provide elements of the SS7 network on an  
23 unbundled basis is necessarily limited by the way the SS7  
24 network is designed. Unbundling GTE's SS7 signaling network  
25 suggests that SLs, STPs, and/or SCPs within the GTE signaling

1 network could be purchased and/or provisioned independent of  
2 each other. This implies, for example, that SLs could be  
3 provisioned independently, and by multiple providers, without  
4 regard to purchase, or ownership, of the signaling node to which  
5 it connects. Similarly, this implies that a signaling node could be  
6 provided independent of other nodes and the links between them.

7  
8 However, it is generally not possible to unbundle SLs, STPs  
9 and/or SCPs because it is not possible for ALECs to self provision,  
10 either singly or in combination, SLs, STPs, and/or SCPs within the  
11 GTE signaling network.

12

13 **Q. PLEASE EXPLAIN IN MORE DETAIL WHY SIGNALING LINKS**  
14 **CAN'T BE UNBUNDLED.**

15 **A.** It is not possible for an ALEC to self-provision a signal link for  
16 routing its own signaling messages within the GTE signaling  
17 network. As described earlier, signaling links within the GTE  
18 network connect signaling nodes (e.g., SSP, STP and SCP) to one  
19 another. Current industry standards, in the interest of maintaining  
20 an efficient network structure, give various elements of the  
21 network specific functions which are not resident in others.  
22 These standards do not support the unbundling of the signaling  
23 link connecting a GTE SSP or SCP to its primary GTE STP pair as  
24 neither the SSP nor the SCP can perform appropriate screening,  
25 routing or translation functions necessary to separately distinguish

1 and route messages to multiple links. Each GTE SSP and SCP  
2 relies upon the STPs to perform these functions and properly  
3 route messages throughout the GTE signaling network and on to  
4 interconnected signaling networks.

5  
6 Similarly, it is not possible to allow a third party to provide the  
7 signal link between an SCP and its primary STP pair. As  
8 described earlier, the SCP is not capable of providing various  
9 screening and routing functions necessary to distinguish links of  
10 multiple providers and must rely upon its primary STP pair for  
11 these functions. Therefore, the signaling links must be provided  
12 between the STP pair and the SCP.

13  
14 **Q. WHY ISN'T IT POSSIBLE TO UNBUNDLE SCPs?**

15 A. As discussed above, the SCP cannot perform screening and  
16 routing functions necessary to distinguish links and/or STPs of  
17 multiple providers. The SCP relies upon its primary STP pair for  
18 this capability. Under current standards and within GTE's  
19 network the SCP must therefore be provided in conjunction with  
20 an associated link and primary STP pair--the SCP cannot be  
21 unbundled and independently provided. Thus, access to the SCP  
22 is gained through the primary STP pair and the associated links.

23  
24 **Q. WHY CAN'T STPs BE UNBUNDLED?**

25 A. It is not possible to provide STPs on an unbundled basis because

1 the STP pair was designed to be the point of interconnection to  
2 SS7 networks. Access at other points of the SS7 network is not  
3 technically feasible. Only the STP directs message flow and  
4 provides necessary network mediation functions. These functions  
5 are not performed at other points in the GTE SS7 network.

6

7 **Q. IS IT EVER FEASIBLE FOR AN ALEC TO SELF-PROVISION THE**  
8 **SS7 COMPONENTS?**

9 **A.** In some situations it is feasible for an ALEC to self-provision these  
10 components and interconnect to the GTE signaling network,  
11 creating a "network of networks." This can be accomplished in  
12 a variety of ways, depending upon the ALEC's choice of network  
13 elements and providers. There are two options for  
14 interconnection of an ALEC SS7 capable switch with the GTE  
15 signaling network. The first option is for an ALEC SS7 capable  
16 switch (SSP) to connect directly to a GTE STP pair. The GTE STP  
17 pair would then provide all of the screening, routing and  
18 translation functions for the ALEC SSP, just as it does today for  
19 GTE's SSPs. The second option is for an ALEC SSP to connect  
20 to an ALEC STP pair or to a STP pair provided by a third party.  
21 The ALEC or the third party STP pair would then establish an  
22 interconnection with the GTE network at an appropriate STP pair.  
23 These interconnections would be accomplished by interconnecting  
24 the two signaling nodes via SLs. The signaling link could be  
25 provisioned in a variety of ways, including: self-provisioned by the

1 ALEC via collocation; purchased from GTE as special access lines  
2 (SALs); provisioned over jointly constructed facilities; or  
3 provisioned in other methods that may be identified as local  
4 interconnections are discussed and negotiated.

5

6

7 **Q. IS IT POSSIBLE TO SAFEGUARD THE INTEGRITY OF THE SS7**  
8 **NETWORK IF OTHERS INTERCONNECT WITH THAT NETWORK?**

9 A. In an interconnected environment, the security of the SS7  
10 network can be assured only through mediation. Mediation refers  
11 to a number of functions. In this discussion, mediation refers to  
12 the STP functions of gateway screening. (AIN mediation, another  
13 aspect of mediation, is discussed in the testimony of GTE witness  
14 DellAngelo.) Mediation may also refer to intermediate interface  
15 with other network elements to address security and reliability  
16 issues. The gateway screening functions of the STP include  
17 screening to prevent passage of inexecutable or dangerous  
18 messages to the SCP, rejecting inconsistent messages and  
19 preventing unauthorized access to proprietary information.  
20 Neither the SCP nor any other point in the SS7 network can  
21 perform these functions. Also, access to the SCP or its  
22 associated database(s) is technically feasible only through the STP  
23 pair associated with that SCP, whether the SCP is owned by the  
24 incumbent LEC or another entity. Therefore, the SCP cannot be  
25 unbundled from the associated STPs.



1 Q. FOR WHAT PURPOSES DOES GTE PROVIDE STP  
2 INTERCONNECTION?

3 A. GTE provides STP interconnection for call setup, access to the  
4 800 data base and access to GTE's LIDB. STP interconnection  
5 for call setup and for DB800 queries takes place at the local STP  
6 pairs serving the LATA or LATAs in which the message is  
7 originated. DB800 queries are directed to the DB800 database  
8 from an appropriately-equipped end office or access tandem in the  
9 local exchange network to determine the appropriate carrier for  
10 routing an 800/888 dialed call. All switches which are equipped  
11 to perform this function (i.e., SSP functionality) must have access  
12 to a DB800 database. Offices which are not equipped to perform  
13 this function must route all 800/888 dialed calls to a switch  
14 which can perform this function. Interconnection for access to  
15 GTE's line information database (LIDB) takes place through the  
16 regional STP pair associated with the SCP and LIDB database in  
17 Indiana (local STPs in the network are connected to regional STP  
18 pair). Queries are directed and processed according to industry  
19 standards for calling card verification, third-party and reverse  
20 billing of operator-assisted calls.

21

22

23 Q. WILL INTERCONNECTION ONLY AT THE STP PAIR HARM THE  
24 ALECS' ABILITY TO COMPETE?

25 A. No. Interconnection at the STP pair will provide ALECs with the

1 ability to establish service and compete in the local service arena,  
2 since ALECs can obtain access to all SS7 functions at the STP  
3 pair. With interconnection at the STP, ALECs will also have  
4 access to all GTE databases needed for call routing and  
5 completion. Failure to obtain access to GTE's SS7 network at  
6 other points will not impair the ALEC's ability to provide their  
7 subscribers with any SS7 service equivalent to that offered by  
8 GTE today to GTE's subscribers.

9

10 **Q. ASIDE FROM ANY TECHNICAL CONSIDERATIONS, ARE THERE**  
11 **POLICY REASONS RECOMMENDING AGAINST**  
12 **INTERCONNECTION AT POINTS OTHER THAN THE STP PAIR?**

13 **A. Yes. Setting aside that technical standards do not presently exist**  
14 **for interconnection at points other than the STP pair and that no**  
15 **standards have been established and accepted for direct**  
16 **interconnection into the SCP, if direct interconnection at the SCP**  
17 **were accomplished the consequences could be extreme and**  
18 **wide-ranging. Even if a resourceful engineer were able to modify**  
19 **the hardware and logic of an SCP to accomplish such an**  
20 **interconnection, several undesirable events are possible,**  
21 **depending on the quality of the design and software development:**

22

23 • Customer proprietary network information (CPNI)  
24 contained in the SCP could be compromised thereby  
25 resulting in improper disclosure and/or modification of

1 private customer information by unauthorized persons,  
2 entities or "hackers." Access to such information could  
3 not be prevented, controlled or managed as it is with  
4 STP mediation.

5

6 • Other interconnected SS7 networks might not be able  
7 to appropriately route messages to the correct  
8 destination.

9

10 • Without mediation by the STP, the SCP would not be  
11 capable of distinguishing potentially conflicting  
12 instructions for the same customer, originating from  
13 two different networks.

14

15 • Maintenance, operational and administrative messages  
16 from the interconnecting SS7 network could affect the  
17 network of the owner of the SCP and potentially, some  
18 or all of the SS7 networks interconnected with the SS7  
19 network of the SCP owner.

20

21 *If any of the above-referenced events were to happen, customer*  
22 *service would be affected, ranging from minor impact (e.g.,*  
23 *routing of calls to the wrong destination) to catastrophic (e.g.,*  
24 *isolating a number of switching offices, or disabling portions of an*  
25 *SS7 network).*

1 Q. ARE THE CONCERNS YOU RAISE ABOUT BROAD SS7  
 2 UNBUNDLING AND INTERCONNECTION UNIQUE TO GTE'S  
 3 SIGNALING NETWORK?

4 A. No. The GTE signaling network is designed to conform with  
 5 current industry standards. The types of screening, routing and  
 6 translation capabilities needed to provide for third party access to  
 7 individual network nodes, i.e., SSPs and SCPs, are not supported  
 8 by current standards.

9

10

11 Q. HOW, SPECIFICALLY, DOES GTE PROPOSE TO ALLOW  
 12 INTERCONNECTION THROUGH THE STP TO ITS SS7 NETWORK?

13 A. GTE would offer a number of interconnection options through the  
 14 STP. These options, listed below, are a function of the  
 15 technological and network reasons discussed above.

16

17	<u>Component</u>	<u>Options</u>
18	SIs to the STP	• SLs may be self provisioned by the
19		ALEC via collocation; or
20		• SLs may be purchased from GTE as
21		special access lines; or
22		• SLs may be provisioned over jointly
23		constructed facilities; or
24		• SLs may be established by other
25		methods which are identified as

1 local interconnections are  
2 discussed and negotiated.

3

4 STP Port ● Access to GTE's SS7 system is  
5 provisioned only through the STP  
6 Port according to GTOC1.

7

8 Database queries ● Requires STP port interconnection.  
9 ● LIDB queries provisioned under  
10 terms and conditions reflected in  
11 GTOC1, GTE's Federal access  
12 tariff.

13 ● DB800 queries provisioned under  
14 the terms and conditions reflected  
15 in GTE's Carrier Selection Service,  
16 which is offered to all LECs.  
17 ● Provisioning of other database  
18 queries will be established as such  
19 databases are developed.

20

21 These options are diagrammed in Exhibit No. DNM-5.

22

23 **Q. HOW WOULD PRICING FOR ALEC INTERCONNECTION TO GTE'S**  
24 **SS7 NETWORK BE DETERMINED?**

25 **A. Pricing for ALEC interconnection to GTE's signaling SS7 signaling**

1 network will be as follows:

2	<u>Component</u>	<u>Options</u>
3	Links to STP:	<ul style="list-style-type: none"><li data-bbox="850 264 1443 653">● Pricing for the individual link "pieces" negotiated for the interconnection will be at the state tariffed rate for these "pieces" (e.g., collocation, special access facilities, etc.); or</li><li data-bbox="850 695 1443 1304">● If the ALEC wishes GTE to provide the signaling link to GTE's STP pair(s), GTE will provide Dedicated Switched Access Line (DSAL) and Dedicated Switched Access Termination (DSAT) facilities from the Customer Designated Location (CDL), with pricing from GTOC1, GTE's Federal access tariff.</li></ul>
19	STP Ports:	<ul style="list-style-type: none"><li data-bbox="850 1419 1443 1661">● The pricing for STP Ports will be the STP Port rate referenced in GTOC1, GTE's Federal access tariff.</li></ul>
24	Databases:	<ul style="list-style-type: none"><li data-bbox="850 1776 1443 1879">● Pricing for database queries will be either: (1) from GTOC1, GTE's</li></ul>

1 Federal access tariff (in the case of  
2 LIDB); or (2) at the current pricing  
3 for GTE's services offered to other  
4 LECs (in the case of DB800/Carrier  
5 Selection Service).

6  
7 **Q. WHY HAS GTE PROPOSED SEVERAL DIFFERENT**  
8 **ARRANGEMENTS FOR SS7 INTERCONNECTION?**

9 A. GTE proposes the above-referenced arrangements for SS7  
10 network interconnection instead of an all-inclusive tariff  
11 arrangement, since SS7 network interconnections are complex  
12 and not reducible to a single element. A "one-size-fits-all"  
13 approach is not well-suited for establishing SS7 interconnection.  
14 Contractual arrangements in regard to interconnection of the link  
15 between the ALECs to a GTE STP can be established at the time  
16 of negotiation of an overall interconnection agreement.  
17 Depending upon the manner in which the ALECs are linked,  
18 certain GTE tariffs will apply. GTE believes that this manner of  
19 establishing interconnection will provide the most efficient, most  
20 effective, and lowest cost solution for the ALEC.

21  
22 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

23 A. GTE's SS7 network cannot be unbundled at this time to permit  
24 physical interconnection at any point other than the STP, which  
25 fulfills a vital role in safeguarding network reliability and integrity.

1           Access at the STP pair will enable the ALECs to obtain access to  
2           any SS7 service equivalent to that offered by GTE today. GTE  
3           will charge its federally tariffed prices for interconnection into the  
4           SS7 network except where contractual negotiation is better suited  
5           to meet the needs of the ALECs in regard to the provision of  
6           particular interconnection links to the STP. Where negotiation  
7           results in provision of facilities covered by state tariffs, the state  
8           tariff rate or rates will be applicable.

9

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

11    **A.    Yes, it does.**

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**GTE FLORIDA INCORPORATED**  
**DIRECT TESTIMONY OF DOUGLAS N. MORRIS**  
**DOCKET NO. 960980-TP**

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

A. My name is Douglas N. Morris. My business address is 600 Hidden Ridge, Irving, TX, 75038.

**Q. ARE YOU THE SAME DOUGLAS N. MORRIS WHO FILED DIRECT TESTIMONY IN RESPONSE TO AT&T'S ARBITRATION PETITION IN DOCKET 960847-TP?**

A. Yes. That Testimony was filed on September 10, 1996.

**Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?**

A. That Testimony presented GTE's position on unbundling of Signaling System 7 (SS7), in response to AT&T's Petition for Arbitration.

**Q. DO THE AT&T AND MCI PETITIONS FOR ARBITRATION RAISE ESSENTIALLY THE SAME ISSUES WITH REGARD TO SS7 UNBUNDLING?**

A. Yes, I believe they do. Because fundamentally the same issues are presented by both Petitions, I don't believe wholly new testimony with regard to MCI is warranted. In an effort to avoid undue repetition, I am adopting my Direct Testimony in the AT&T arbitration as my Direct

1           Testimony in this MCI arbitration as well. This approach is consistent  
2           with the Commission's consolidation of these dockets for hearing and  
3           resolution in a single proceeding. If there are MCI-specific issues  
4           and positions that need to be addressed, I will do so in my Rebuttal  
5           Testimony.

6

7           **Q.    DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

8           **A.    Yes, it does.**

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**GTE FLORIDA INCORPORATED**

**REBUTTAL TESTIMONY OF DOUGLAS N. MORRIS**

**DOCKET 960980-TP**

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

A. My name is Douglas N. Morris. My business address is 600 Hidden Ridge, Irving, TX, 75038.

**Q. DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

A. Yes, I did.

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

A. The purpose of my rebuttal testimony is to address certain positions addressed by MCI witness Caplan.

**Q. MR. MORRIS, MCI WITNESS MR. DREW CAPLAN SUGGESTS IN HIS TESTIMONY ON PAGE 37, LINES 21-25, AND PAGE 38, LINES 1-4, THAT TWO SIGNALING POINTS OF INTERCONNECTION (SPOIS) BE ESTABLISHED IN EACH LATA, WITH ONE SELECTED BY EACH PARTY. IS THIS A REASONABLE SUGGESTION?**

A. Yes. As previously indicated in my testimony, MCI may designate the appropriate locations for the "SPOIs" referred to in Mr. Caplan's testimony.

**Q. MR. CAPLAN FURTHER SUGGESTS ON PAGE 38, LINES 5-7 OF**

1           **HIS TESTIMONY, THAT THERE BE NO EXPLICIT CHARGE FOR**  
2           **STP PORTS. DO YOU AGREE WITH THAT STATEMENT?**

3       A.    No.    Because of the varieties of possible interconnection and  
4           supporting activities required, GTE will charge MCI and other carriers  
5           for the appropriate number of STP ports required on GTE's STPs.

6  
7       **Q.    MR. CAPLAN ON PAGE 38, LINES 8-16 OF HIS TESTIMONY,**  
8           **OUTLINES THE CONNECTIVITY PROPOSED BY MCI FOR**  
9           **INTERCONNECTION WITH GTE'S SIGNALING NETWORK. DO**  
10          **YOU AGREE WITH THE CONNECTIVITY STATEMENTS?**

11      A.    Yes and no. The first bullet refers to ISDN User Part (ISUP) signaling  
12           for calls between MCI and GTE switches. I agree with that  
13           characterization if it is specific to exchange or exchange access calls  
14           where the signaling interconnection is to the GTE STPs located in the  
15           same LATA. The second bullet refers to ISUP signaling with regard  
16           to calls between MCI and other networks that "transit through the  
17           ILEC switched network". The meaning of "transit through the ILEC  
18           switched network" is not clear in this context. GTE will signal for  
19           exchange or exchange access calls between two other carriers, if  
20           those carriers are both interconnected with GTE's switched network.  
21           The third bullet refers to Transaction Capability Application Part  
22           (TCAP) messaging to query call-related databases or in support of  
23           CLASS services. GTE will support TCAP messaging for CLASS  
24           services. Querying GTE's LIDB and DB800/888 databases will be  
25           supported in accordance with my testimony. AIN services are

1 covered by Mr. Dellangelo.

2

3 **Q. ON PAGE 39, LINES 11-14 OF HIS TESTIMONY, MR. CAPLAN**  
4 **SETS FORTH THE REQUIREMENT THAT GTE MUST PROVIDE**  
5 **"MCI BILLING AND RECORDING INFORMATION TO TRACK**  
6 **DATABASE USAGE", IN ORDER FOR MCI TO GAIN ACCESS TO**  
7 **CALL-RELATED DATABASES. IS THIS POSSIBLE?**

8 **A.** Not without a more specific request and more discussion.. It is not  
9 clear exactly to what "billing and recording information" refers.

10

11 **Q. MR CAPLAN ALSO REFERS ON PAGE 39, LINES 17-19 OF HIS**  
12 **TESTIMONY, TO STORAGE OF MCI'S CUSTOMER INFORMATION**  
13 **IN GTE'S LIDB, AND IN LINES 21-25 OF THE SAME PAGE OF HIS**  
14 **TESTIMONY, OUTLINES THE FUNCTIONS TO BE PROVIDED FOR**  
15 **MCI'S CUSTOMER INFORMATION STORED IN THE LIDB. IS THIS**  
16 **POSSIBLE?**

17 **A.** This capability is offered to LECs by GTE as "LIDB Storage", under  
18 contract. The functions requested are provided for queries to the  
19 LEC's customer information.

20

21

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

23 **A.** Yes, it does.

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**GTE FLORIDA INCORPORATED**  
**REBUTTAL TESTIMONY OF ALLAN PETERS**  
**DOCKET NO. 960847-TP**

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

A. My name is Allan Peters and my business address is 600 Hidden Ridge, Irving, Texas 75038.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

A. I am employed by GTE Telephone Operations ("GTE") as Group Product Manager-Directory Services. I am responsible for all directory-related matters within GTE Telephone Operations, including the establishment of terms and conditions under which GTE Telephone Operations provides directory services to third parties, including competitive local exchange carriers.

**Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

A. I have an Associates Degree in Business Administration from Longview Community College in Lee's Summit, Missouri. I have 25 years' experience in the directory publishing industry, having been employed by L. M. Berry & Company, Mast Advertising and Publishing, United Telephone/Sprint, and Contel Service Corporation before joining GTE in April, 1991. My initial position with GTE was as

1 a Staff Administrator-Directory Services, and I was named to my  
2 current position in June, 1993.

3

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

5 A. I will respond to the positions of AT&T and MCI on directory matters.  
6 In doing so, I will describe GTE's proposed handling of directory  
7 publishing and distribution in association with interconnecting  
8 Alternative Local Exchange Carriers ("ALECs").

9

10 **Q. WILL GTE DISTRIBUTE DIRECTORIES TO ALEC'S END USER**  
11 **CUSTOMERS AS WELL AS GTE'S END USERS?**

12 A. Yes. GTEFL is willing to provide the initial distribution of the  
13 telephone directory—including both GTEFL and ALEC end users—at  
14 no charge to ALEC customers within GTE's traditional directory  
15 service area. Secondary distribution of directories (outside the  
16 *annual delivery (e.g., to new customers, request for additional copies)*  
17 will be offered to the ALEC at a reasonable rate. The ALEC will be  
18 required to supply GTEFL with all required subscriber mailing  
19 information to enable GTEFL to perform its distribution  
20 responsibilities. This will also include information on nonpublished  
21 *and nonlisted customers.*

22

23

24

25

1 Q. AT&T WITNESS CARROLL COMPLAINS THAT WHILE GTEFL  
2 DOES NOT CHARGE ITS RETAIL CUSTOMERS FOR  
3 SECONDARY DELIVERY, IT HAS PROPOSED TO CHARGE AT&T  
4 FOR THE SAME SERVICE. IS THIS PROPOSED CHARGE  
5 UNFAIR?

6 A. Absolutely not. The \$2.49 secondary distribution charge proposed by  
7 GTEFL is precisely the same charge that GTEFL pays for secondary  
8 distribution. The fact that GTEFL does not directly impose this  
9 charge on its end users is immaterial to whether GTEFL should have  
10 the right to collect this charge from AT&T and MCI. As Mr. Carroll  
11 admits, the charge for secondary delivery is presumably included in  
12 the price for local service. By the same token, AT&T can handle the  
13 charge in the way that it believes is best from a marketing standpoint.  
14 But waiving the secondary distribution charge for AT&T or MCI—and  
15 thus forcing GTEFL to pick it up—would give AT&T and MCI an  
16 unambiguous and unwarranted advantage over other ALECs and  
17 GTEFL itself. Competition would certainly not benefit through this  
18 approach, contrary to Mr. Carroll's claims.

19  
20 Q. IN ITS PETITION (AT PAGE 11), AT&T DEMANDS THAT GTEFL  
21 PROVIDE AT&T WITH SPACE IN THE GTEFL DIRECTORY THAT  
22 IS EQUAL TO THE SPACE GTEFL PROVIDES ITSELF. IS THIS  
23 POSITION REASONABLE?

24 A. No. GTEFL has the right to control the content of its publications.  
25 GTEFL does not believe the information pages of its directories are



1 the proper place for ALECs to discuss their products and services, as  
2 AT&T wishes to do. Moreover, in a competitive market, each new  
3 page on products and services that one ALEC includes may be  
4 replicated by every other ALEC. (I understand from my lawyers that  
5 whatever the Commission orders for AT&T, GTEFL may have to make  
6 available to all other ALECs as a result of the FCC's recent  
7 interconnection order.) Such a result—even if only a few ALECs took  
8 advantage of it—would make GTEFL's directories unwieldy for  
9 customers to use.

10  
11 **Q. HAS GTEFL OFFERED ANY SPACE IN ITS DIRECTORIES TO**  
12 **AT&T AND MCI?**

13 **A.** Yes. GTE is willing to provide limited space in the Information Pages  
14 of its directories at no charge for critical customer contact information  
15 (i.e., business office, billing inquiries, repair) only. No product  
16 information will be allowed in the information pages, and no ALEC  
17 logos will be placed on directory covers (as MCI has asked in its  
18 Petition at 44). GTEFL believes this proposal is fair and in keeping  
19 with the concerns I discussed above.

20  
21 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

22 **A.** Yes, it does.  
23  
24  
25

1                   granting access to every piece of equipment or real  
2                   property owned or controlled by the utility.

3                   (Order at ¶ 1185 (emphasis added)(footnote omitted).)

4  
5                   Had the FCC intended to adopt AT&T's expansive interpretation  
6                   of "rights-of-way" to include all possible "pathways" to the end-  
7                   user customer, it would have done so. Instead, it clarified the  
8                   scope of section 224(f)(1) by limiting it to an entity's ability to  
9                   "'piggyback' along distribution networks" to the extent they "are  
10                  owned or controlled by utilities." (Order at ¶ 1185 (emphasis  
11                  added).)

12

13       **Q.    ARE THE PATHWAYS AT&T REFERS TO PART OF GTE'S**  
14       **NETWORK, SUCH THAT ONLY GTE CAN GRANT ACCESS TO**  
15       **THEM?**

16       **A.    No. The areas identified by AT&T as "pathways" are not part of**  
17       the distribution network used to place GTE's facilities. Rather,  
18       they are the linking point between GTE's facilities and the  
19       customer's premises equipment. These "pathways" generally are  
20       not owned or controlled by GTE. GTE is able to place its  
21       equipment in these areas through arrangements negotiated with  
22       the premises owners. There is nothing to prevent AT&T from  
23       making its own arrangements. In this regard, GTE has  
24       represented that it will not discourage property owners from  
25       agreeing to similar arrangements with AT&T, nor will GTE enter

1 into agreements that in any way restrict the owner's ability to  
2 grant such access to AT&T.

3

4 **Q. SHOULD AT&T HAVE THE UNRESTRICTED RIGHT TO "BREAK**  
5 **OUT" OF MANHOLES ONCE GTE HAS GRANTED IT A CONDUIT**  
6 **ACCESS ARRANGEMENT?**

7 A. "Breaking out" of manholes refers to the process by which new  
8 holes are placed through the walls of manholes to provide an  
9 entrance or exit for underground cables. GTE has proposed that  
10 any company desiring to break out of a GTE manhole first should  
11 obtain authorization from GTE. In determining whether  
12 authorization should be granted, GTE would need to address at  
13 least two issues. First, GTE would have to determine whether or  
14 not the desired hole would impair the structural and operational  
15 integrity of the manhole. Only a limited number of holes can be  
16 made in a manhole wall (typically six to eight inches of concrete)  
17 before that wall becomes structurally unsound. This requirement  
18 would be consistent with the safety concerns underlying the  
19 FCC's determination that access can be denied by any utility for  
20 reasons of capacity, safety, reliability and engineering. (See Order  
21 at ¶ 1176.)

22

23 Second, depending on the extent of the effort required to make  
24 the desired hole, GTE may be required to ensure that all work is  
25 performed by qualified individuals in a safe, workmanlike manner.

1 Breaking out of a manhole typically involves the use of heavy  
2 equipment, such as a jack hammer, which can cause severe  
3 damage if not used properly. Moreover, facilities in a manhole  
4 must be properly installed, grounded and bonded to avoid future  
5 damage. Thus, such a provision would be consistent with the  
6 FCC's determination that utilities can require that "only properly  
7 trained persons" work in the proximity of their facilities. (Order  
8 at ¶ 1182.)

9  
10 **Q. SHOULD GTE BE ALLOWED TO RESERVE ANY SPACE ON ITS**  
11 **POLES AND IN ITS CONDUITS FOR ITS OWN FUTURE NEEDS?**

12 **A.** Yes. The Act's requirement of "nondiscriminatory access" does  
13 not mean that GTE's rights as an owner of poles and conduits  
14 must be relegated to the status of a mere licensee occupant.  
15 Rather, "nondiscriminatory access" requires that an owner of  
16 poles or conduits treat equally all companies seeking access.  
17 Thus, for example, an owner would not be permitted to provide  
18 access to a subsidiary or affiliate on terms and conditions more  
19 favorable than those offered to all other companies. It also  
20 means that an owner would not be allowed to place more onerous  
21 terms and conditions for access on a competitor than are imposed  
22 on non-competing company.

23  
24 As a public policy matter, ILECs, such as GTE, have special  
25 service obligations by virtue of their status as providers of last

1 resort. Because GTE must be able to serve new customers  
2 readily, it must always have reserve capacity. Depriving GTE of  
3 the ability to maintain reserve capacity would impair service to  
4 the public and cause extraordinary cost increases. Moreover,  
5 depriving GTE of the ability to reserve space on its own facilities  
6 will have a significant adverse effect on GTE's future investment  
7 in poles and conduits. If GTE cannot reserve space in its own  
8 facilities, there is no incentive to construct facilities sufficient to  
9 satisfy future needs. As a result, economic and efficient  
10 investment will be lost, and long-range strategic planning  
11 rendered impossible.

12  
13 Finally, a determination precluding GTE from reserving space for  
14 its own future needs is squarely at odds with the plain meaning  
15 of section 224(f)(1), which applies the nondiscrimination  
16 requirement only to those for whom access must be "provided,"  
17 not to the owner, whose "access" is synonymous with its  
18 ownership right.

19  
20 **Q. BASED ON YOUR COMMENTS, IT SEEMS GTE DOES NOT AGREE**  
21 **WITH THE FCC'S INTERPRETATION OF THE ACT IN THIS**  
22 **RESPECT. IS THAT CORRECT?**

23 **A.** For the reasons I discussed above, GTE does not agree with the  
24 FCC's conclusion that non-electric utilities, such as GTE, are not  
25 permitted to reserve space on their own facilities under the

1 nondiscriminatory access requirement of section 224. GTE's legal  
2 advisors believe that the FCC's conclusion, coupled with the  
3 access rate requirements of section 224 and the FCC's  
4 implementing regulations, effect a "taking" of GTE's property in  
5 violation of the Fifth Amendment of the U.S. Constitution. The  
6 takings issue is treated in detail in GTE's Takings Report, which  
7 I mentioned earlier, and this legal issue will also be discussed in  
8 the Company's post-hearing brief.

9

10 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

11 **A.** Should the Commission choose to follow the Act and the FCC's  
12 implementing regulations pending judicial review, the Commission  
13 nevertheless should recognize GTE's vested property rights and  
14 limit AT&T's access to GTE's poles, conduits and rights-of-way  
15 accordingly. Specifically, GTE asks that the Commission: (1)  
16 permit GTE to deny access to AT&T under certain situations of  
17 insufficient capacity and/or reasons of safety, reliability and  
18 generally applicable engineering purposes; (2) adopt GTE's  
19 definition of "pathways"; (3) place restrictions on AT&T's ability  
20 to break out of GTE's manholes, requiring AT&T to obtain prior  
21 approval, and (4) reserve space on its poles and conduits for  
22 future use.

23

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

25 **A.** Yes.

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**GTE FLORIDA INCORPORATED**  
**DIRECT TESTIMONY OF CHARLES F. BAILEY**  
**DOCKET NO. 960980-TP**

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

A. My name is Charles F. Bailey. My business address is 600 Hidden Ridge, Irving, TX, 75038.

**Q. ARE YOU THE SAME CHARLES F. BAILEY WHO FILED DIRECT TESTIMONY IN RESPONSE TO AT&T'S ARBITRATION PETITION IN DOCKET 960847-TP?**

A. Yes. That Testimony was filed on September 10, 1996.

**Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?**

A. That Testimony set forth GTE's position with regard to other carriers' access to GTE's poles, conduits, and rights-of-way. The discussion was in the context of AT&T's arbitration request.

**Q. HAVE AT&T AND MCI RAISED ESSENTIALLY THE SAME ISSUES WITH REGARD TO ACCESS TO GTE'S POLES, CONDUITS, AND RIGHTS-OF-WAY?**

A. Yes, I believe AT&T and MCI present fundamentally the same issues. GTE's position in response to their respective requests for access to poles, conduits, and rights-of-way will thus be the same. Because it

1           would be unduly repetitive to submit wholly new testimony in  
2           response to MCI, I am therefore adopting my Direct Testimony in the  
3           AT&T arbitration as my Direct Testimony in this MCI arbitration. This  
4           approach is consistent with the Commission's consolidation of these  
5           two proceedings. If there are any outstanding MCI-related matters,  
6           I will address them in my Rebuttal Testimony.

7

8           **Q.    DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

9           **A.    Yes, it does.**

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**GTE FLORIDA INCORPORATED****REBUTTAL TESTIMONY OF JOHN V. JERNIGAN****DOCKET NO. 960847-TP**

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

**A. My name is John V. Jernigan. My business address is 201 Franklin Street, Tampa, Florida 33601-0110.**

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

**A. I am employed by GTE Florida Telephone Operations as Project Manager - Infrastructure Provisioning.**

**Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

**A. I graduated from the University of South Florida in August 1986 with a Bachelor of Arts degree in the College of Social and Behavioral Sciences. I also have an Associate Technical Degree and an Associate Management Degree from GTE Telephone Operations. I joined GTE Florida in 1970 and have held management positions as Central Office Supervisor, Central Office Manager, General Office Administrator, Section Manager-Project Management, OPCEN Supervisor, Senior Administrator-Liaison Right-of-Way/Joint Use, and currently Project Manager-Infrastructure Provisioning.**

1       **Q.    WHAT ARE THE RESPONSIBILITIES OF YOUR CURRENT**  
2       **POSITION?**

3       **A.    I am responsible for transitioning of the Liaison Right-of-Way/Joint**  
4       **Use office duties and responsibilities to the new organization**  
5       **entitled Infrastructure Provisioning. In this proceeding, I am**  
6       **providing testimony on behalf of GTE Florida.**

7

8       **Q.    DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

9       **A.    No, I did not, but the purpose of this Rebuttal Testimony is to**  
10      **adopt the Direct Testimony of Charles F. Bailey in this docket.**  
11      **The GTE Operating Companies are involved in numerous**  
12      **concurrent arbitration proceedings with various parties around the**  
13      **country. Given this situation, it is inevitable that scheduling**  
14      **conflicts will arise for the few witnesses that are available to**  
15      **testify on any particular subject. For this reason, it is sometimes**  
16      **necessary--as it is here--to substitute one witness for another**  
17      **after testimony is prefiled.**

18

19      **Q.    DO YOU HAVE ANY SUBSTANTIVE REBUTTAL TO AT&T AT**  
20      **THIS POINT?**

21      **A.    No. Mr. Bailey's Direct Testimony was based on AT&T's**  
22      **arbitration petition and associated testimony. As such, that**  
23      **Testimony effectively rebutted AT&T's positions on access to**  
24      **GTE's poles, conduits, and rights of way.**

25

1 Q. DOES THAT CONCLUDE YOUR TESTIMONY?

2 A. Yes, it does.

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1       **Q.    WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT**  
2       **POSITION?**

3       **A.    I am responsible for transitioning of the Liaison Right-of-Way/Joint**  
4       **Use office duties and responsibilities to the new organization, called**  
5       **Infrastructure Provisioning.**

6

7       **Q.    DID YOU FILE DIRECT TESTIMONY IN THIS PROCEEDING?**

8       **A.    No, but I am hereby adopting the Direct Testimony of Charles Bailey**  
9       **and I have filed Rebuttal Testimony in the AT&T portion of this**  
10      **proceeding. Because the GTE Telephone Operating Companies are**  
11      **involved in numerous, concurrent arbitration proceedings throughout**  
12      **the country, scheduling conflicts for the few witnesses available to**  
13      **testify on a given subject are inevitable. As such, it is sometimes**  
14      **necessary--as in this instance--to change witnesses.**

15

16      **Q.    WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

17      **A.    I will respond to MCI's requests concerning access to GTEFL's poles,**  
18      **ducts, conduits, and rights-of-way.**

19

20      **Q.    IN HIS DIRECT TESTIMONY (AT PAGE 45), MCI WITNESS DON**  
21      **PRICE ASSERTS THAT THE COMMISSION SHOULD REQUIRE**  
22      **ILECS TO PROVIDE INFORMATION ON LOCATION AND**  
23      **AVAILABILITY OF ACCESS TO POLES, CONDUITS AND RIGHTS-**  
24      **OF-WAY WITHIN 20 BUSINESS DAYS OF MCI'S REQUEST. IS**  
25      **THIS POSITION REASONABLE?**

1       A.    No.   GTEFL will, upon a specific MCI request, provide it with  
2           information on location and availability of access to GTEFL's poles,  
3           conduits, and rights-of-way.  However, a mandated 20 day-period to  
4           do so is unreasonable.  Many factors determine how fast GTEFL can  
5           get the information MCI wants.  These include, for example, the  
6           volume of requests received during a given timeframe; whether  
7           easements are assignable in a particular case; the fact that a field  
8           visit will often be required to determine availability of space and  
9           access; and the ease or difficulty with which GTEFL can contact a  
10          private property owner in a given instance.  GTEFL will commit to  
11          obtaining location and availability information for MCI as soon as  
12          possible after MCI's request.  GTEFL does not believe a mandated  
13          timeframe is necessary or practical.  However, if the Commission  
14          wishes to order a presumptively reasonable period, it should be no  
15          shorter than 30 days.

16

17       **Q.    CAN GTEFL AGREE TO MCI'S REQUEST THAT GTEFL MUST**  
18       **NOT PROVIDE LOCATION AND AVAILABILITY INFORMATION TO**  
19       **ITSELF BEFORE IT PROVIDES SUCH INFORMATION TO MCI?**

20       A.    No.  This is impossible from a logical standpoint.  Because it is GTEFL  
21           that must gather the information for MCI, GTEFL will necessarily have  
22           access to the information before MCI does.  GTEFL will get it to MCI  
23           as soon as practicable after GTEFL obtains it.

24

25

1       **Q.    IS MCI'S POSITION ON RESERVATION OF SPACE FOR ITSELF**  
2       **REASONABLE?**

3       **A.    No. First, MCI asks that, for 90 days after a request, GTEFL should**  
4       **be required to reserve poles, conduits, and rights-of-way for MCI.**  
5       **GTEFL assumes that MCI means an approved request, rather than**  
6       **just a request for information on availability. In other words, GTEFL**  
7       **should not be expected to reserve space for MCI at all for any period**  
8       **before MCI has committed to using that space.**

9  
10       Once it has committed to space, MCI should be required to actually  
11       begin using the space it requests within the 90-day period. MCI's  
12       recommended six-month period is unreasonably long. Indeed,  
13       under MCI's proposal, it would not even be required to request make-  
14       ready activities--let alone actually use the poles, conduits, or rights-  
15       of-way--for six months. The bottom line is that MCI's recommendation  
16       would allow it to reserve space for at least 9 months (90 days plus 6  
17       months). This is patently unreasonable, particularly given the fact  
18       that MCI has taken the position (as reflected in its proposed contract  
19       at paragraph 3.16) that GTEFL--which has continuing carrier of last  
20       resort obligations--should not be able to reserve space even to itself.

21  
22       **Q.    IS IT APPROPRIATE FOR GTEFL TO PROVIDE COPIES OF**  
23       **ENGINEERING RECORDS THAT INCLUDE CUSTOMER-SPECIFIC**  
24       **INFORMATION WITH REGARD TO GTEFL'S POLES, DUCTS, AND**  
25       **CONDUITS, AS MCI HAS REQUESTED?**

1       A.    No. MCI has no legitimate need for such information. The only  
2           information MCI needs in response to an inquiry about space  
3           availability or accessibility is where the conduit runs, where the  
4           manholes are, and where the pole line runs. In addition, GTEFL will  
5           give MCI specific assignment information (e.g., which subduct, where  
6           to place the cable on the pole) when it is time to install their cable.

7

8       **Q.    WHO SHOULD PAY FOR THE COST OF PREPARING AND USING**  
9           **GTEFL'S POLES, CONDUITS, AND RIGHTS-OF-WAY FOR MCI'S**  
10          **USE?**

11       A.    The ALEC--in this case, MCI or AT&T--accessing GTEFL's facilities  
12           should pay, as it is the cost causer and it receives the benefits of  
13           access. The rental rates for pole and duct space should be based on  
14           their direct costs with appropriate contribution to the Company's  
15           common costs. All other charges for provision of space (e.g., make-  
16           ready activities, audits, field surveys, records checks, etc.) should be  
17           based on the actual labor and materials costs incurred. For example,  
18           make-ready work is often performed by contractors and the amount  
19           they charge should simply be passed through to the requesting  
20           ALEC. Charges for actual rights-of-way should be shared equally by  
21           all entities utilizing the right-of-way.

22

23       **Q.    IN ITS ARBITRATION PETITION (AT 60), MCI STATES THAT**  
24           **GTEFL SHOULD BE REQUIRED TO PROVIDE REGULAR**  
25           **REPORTS TO MCI ON THE CAPACITY STATUS AND PLANNED**



1           **INCREASE IN CAPACITY OF ALL OF GTEFL'S POLES, DUCTS**  
2           **AND CONDUITS. IS THIS A REASONABLE DEMAND?**

3           A.    No. MCI states that it would like these reports so that it can identify  
4           whether or not GTEFL's poles, ducts, and conduits are full and plan  
5           accordingly. It believes its position is consistent with the FCC's  
6           conclusion on this issue.

7  
8           As an initial matter, GTEFL takes issue with MCI's apparent belief  
9           that the FCC has required ILECs to generate the type of availability  
10          reports MCI requests. Moreover, this request is unduly burdensome  
11          and not necessary to promotion of local exchange competition.  
12          GTEFL does not currently track, even for itself, the information MCI  
13          wants with regard to capacity status and planned increases. Putting  
14          such tracking and reporting processes in place would be very  
15          expensive. The time, expense, and effort to do so is certainly not  
16          warranted by any competitive concerns, since MCI is highly unlikely  
17          to make entry and expansion decisions on the basis of availability of  
18          pole or duct space. As noted above, GTEFL will give MCI availability  
19          information for the facilities and areas it wishes to use, upon requests  
20          that are specific to those facilities and areas. It has no legitimate  
21          need for comprehensive, regular reports on GTEFL's current and  
22          planned capacity.

23  
24          Finally, to the extent that MCI's request for data on GTEFL's future  
25          capacity of poles, conduits and rights-of-way raises space reservation

1 issues, GTEFL emphasizes that it must be permitted to reserve  
2 capacity based on a 5-year planning horizon. It will support access  
3 demands on a case-by-case basis, taking account of this planning  
4 horizon. This approach is reasonable and necessary because  
5 GTEFL's already sophisticated and complex planning for its far-  
6 reaching network will grow even more complicated as its exchange is  
7 opened to other carriers. Assurance of adequate space for GTEFL's  
8 own expansion is essential because of its continuing status as carrier  
9 of last resort.

10

11 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

12 **A. Yes, it does.**

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**GTE FLORIDA INCORPORATED**

2

**DIRECT TESTIMONY OF JOHN W. RIES**

3

**DOCKET NO. 960847-TP**

4

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

6 A. My name is John W. Ries. My business address is 600 Hidden  
7 Ridge, Irving, TX, 75038.

8

**9 Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

10 A. I am employed by GTE Telephone Operations as Product  
11 Manager - Expanded Interconnection Services.

12

**13 Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND  
14 AND WORK EXPERIENCE.**

15 A. I graduated from the University of Missouri - Columbia in 1982 with  
16 a Bachelor of Arts degree in Mathematics and Statistics. My  
17 employment with GTE commenced in May 1982 in the Network  
18 Planning Department. I held several positions during my first six  
19 years with Network Planning. My responsibilities included capital  
20 budgeting, capital portfolio management, implementation of  
21 enhanced support products for Network Planning, and coordination  
22 of technical responses for business customer requests. In 1988 I  
23 moved into the Business Pricing group and remained there for four  
24 years. My responsibilities in the Business Pricing group included  
25 the pricing of new network services for tariff offerings as well as

1 the pricing of individual case applications. I served as Section  
2 Manager of the Business Pricing group and supervised eight  
3 employees. In March 1992 I began working on a special project for  
4 the implementation of facsimile services for GTE.

5  
6  
7 In December 1992 I assumed my current position as Product  
8 Manager for Expanded Interconnection Services. My  
9 responsibilities over the last two years have been to coordinate  
10 GTE's response to the FCC 91-141 Order on Special Access and  
11 Switched Transport Interconnection. As such, I have been  
12 responsible for organizing resources from several different  
13 departments within GTE to determine how GTE would offer  
14 physical and virtual collocation. I have worked with Engineering  
15 personnel to develop rates and Tariffs personnel to develop the  
16 tariff structure. I have also been responsible for educating and  
17 training each of GTE's regions on the various aspects of collocation  
18 and working with each regional team on how to implement  
19 collocation once requests were received. I have been active in  
20 responding to various State commissions on issues regarding  
21 collocation practices and principles, as well as responding to  
22 various customers regarding GTE's offerings under Expanded  
23 Interconnection. I am currently in the process of implementing  
24 GTE's plans to refile federal and state tariffs to allow for physical  
25 collocation under the FCC's 96-325 order with regard to

1 implementation of local competition. I am also reviewing all  
2 interconnection agreements dealing with physical collocation.

3

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

5 A. I will describe collocation in the telecommunications context,  
6 explain the collocation requirements under the federal  
7 Telecommunications Act of 1996 ("the Act"), and present GTE's  
8 position on the collocation issues that have been contentious in the  
9 negotiations with AT&T.

10

11 In brief, GTE recognizes that the Act requires incumbent local  
12 exchange carriers ("ILECs") to allow competing telecommunications  
13 carriers to place equipment on their premises if necessary to  
14 interconnect with unbundled elements of an ILEC's network. But  
15 AT&T has taken the position that the Act permits AT&T to have  
16 virtually unencumbered access to all of GTE's facilities to collocate  
17 whenever it is to AT&T's convenience or advantage. AT&T's  
18 extreme position is unsupported by the Act, which is careful to limit  
19 collocation to what is necessary for fair competition.

20

21 **Q. WHAT IS COLLOCATION?**

22 A. Collocation can take two forms, "physical collocation" and "virtual  
23 collocation."

24

25

1       **Physical collocation** essentially enables an interconnector to set up  
2       *a mini-facility on the premises of a local exchange carrier ("LEC").*  
3       The LEC leases a portion of the space in its facility to the  
4       interconnector, which then places its own equipment in the  
5       segregated space. Typically, that space is enclosed by "cages" or  
6       similar structures to provide security for the ILEC facilities and the  
7       installed equipment. The interconnector is permitted to enter the  
8       facility to install, maintain, and repair collocated equipment.

9  
10       In the case of **virtual collocation**, the interconnector does not  
11       occupy a portion of the LEC's facility, nor does it own the  
12       equipment that is used to interconnect with the LEC's network.  
13       Instead, the LEC owns or leases the equipment necessary to  
14       terminate the interconnector's circuits and dedicates that  
15       equipment to the exclusive use of the interconnector. This  
16       dedicated equipment is housed inside the LEC's facility (usually the  
17       central office) and is linked to the interconnector's circuits outside  
18       the facility (typically at a manhole). As opposed to physical  
19       collocation, the LEC provides installation, maintenance and repair  
20       services for the equipment.

21

22   **Q.    WHAT IS THE PURPOSE OF COLLOCATION?**

23   **A.    A central objective of the Act is to facilitate competition in local**  
24       *exchange markets by allowing new entrants to interconnect with*  
25       unbundled elements of an ILEC's network. For example, an

1 alternative local exchange carrier ("ALEC") may wish to terminate  
2 its own transmission links and interconnect them with an ILEC's  
3 switch, located in the central office, for routing to individual  
4 customers. In doing so, it may want to utilize its own circuit  
5 termination equipment rather than purchase termination and  
6 transport service from the ILEC. For technical reasons (e.g., the  
7 cable required to cross-connect two communications circuits  
8 cannot exceed a certain length), the ALEC's circuit termination  
9 equipment must be in close proximity to the ILEC's network  
10 equipment. In these circumstances, it may be necessary to allow  
11 the ALEC to "collocate" its equipment on the ILEC's premises.

12

13

14 **Q. WHAT ARE THE ILEC'S COLLOCATION OBLIGATIONS UNDER THE**  
15 **ACT?**

16 **A.** *The Act takes account of the technical need to provide some level*  
17 *of collocation to enable ALECs to interconnect with an ILEC's*  
18 *network and access to unbundled network elements. Section*  
19 *251(c)(6) of the Act sets out an ILEC's collocation obligations. It*  
20 *states that an ILEC has: "The duty to provide, on rates, terms, and*  
21 *conditions that are just, reasonable, and nondiscriminatory, for*  
22 *physical collocation of equipment necessary for interconnection or*  
23 *access to unbundled network elements at the premises of the local*  
24 *exchange carrier, except that the carrier may provide for virtual*  
25 *collocation if the local exchange carrier demonstrates to the State*

1 commission that physical collocation is not practical for technical  
2 reasons or because of space limitations."

3

4 The FCC has interpreted this provision to require collocation to be  
5 provided:

- 6 • on a physical or virtual basis at the request of an ALEC;
- 7 • at "all buildings or similar structures owned or leased by the  
8 incumbent LEC that house LEC network facilities";
- 9 • for transmission equipment "used" or "useful" for  
10 interconnection or access to unbundled elements, but not for  
11 switching equipment;
- 12 • for "cross-connects" between collocated ALEC equipment;
- 13 and
- 14 • consistent with reasonable security measures, including  
15 cages.

16 (See In re Implementation of the Local Competition Provisions in the  
17 Telecommunications Act of 1996, First Report and Order, CC  
18 Docket No. 96-98, FCC 96-325 (released Aug. 8, 1996)  
19 (the"Order") at ¶ 555 forward.)

20

21 **Q. DO GTE AND AT&T AGREE ON ALL ASPECTS OF GTE'S**  
22 **IMPLEMENTATION OF THESE COLLOCATION OBLIGATIONS?**

23 A. No. Notwithstanding the recent release of the FCC's Order, GTE  
24 and AT&T continue to disagree on a number of issues regarding  
25 implementation of the statutory provision. (Because of the short



1 time between release of the FCC's Order and the commencement  
2 of arbitration, GTE has been unable to confirm whether the Order  
3 has prompted AT&T to modify positions it took in negotiations.) In  
4 some cases, these disagreements appear to be predicated upon  
5 differing interpretations of the statutes or the FCC's requirements.  
6 In others, they are based on differing opinions regarding the  
7 lawfulness of the FCC's actions. As I explain below, these  
8 disagreements give rise to the issues presented in this arbitration.

9

10 Q. PLEASE LIST THE AREAS OF CONTINUING DISAGREEMENT  
11 BETWEEN GTE AND AT&T.

12 A. As I stated earlier, the issues presented in this arbitration flow  
13 predominantly from differing views of the Act's purpose and  
14 requirements and, specifically, the interpretation of Section  
15 251(c)(6). The questions which must be resolved are:

16

17 (1) *What types of equipment are necessary for interconnection?*

18

19 **AT&T's Position:** AT&T should be permitted to collocate any  
20 type of telecommunications equipment it chooses on GTE's  
21 premises.

22

23 **GTE's Position:** AT&T should be allowed to place on GTE's  
24 premises only equipment that is technically necessary to  
25 provide basic transmission service, such as circuit

1 termination equipment. It should not be permitted to  
2 collocate switches, enhanced services equipment or  
3 customer premises equipment.

4

5 (2) *Should AT&T be permitted to collocate at any and every*  
6 *structure owned by GTE irrespective of its purpose or*  
7 *capabilities?*

8

9 **AT&T's Position:** GTE must allow AT&T to collocate  
10 equipment at any and all structures that house GTE network  
11 elements.

12

13 **GTE's Position:** AT&T should be permitted to collocate at  
14 central offices, serving wire centers, and tandem switches.  
15 It should be permitted to collocate equipment at remote units  
16 only if a given unit offers routing or rating capability and has  
17 sufficient space. AT&T should not be allowed to collocate  
18 at vaults or manholes.

19

20 Pending judicial review of the FCC's Order, GTE will provide  
21 collocation at central offices, serving wire centers, tandem  
22 offices, all buildings or similar structures owned or leased by  
23 GTE and housing GTE network facilities, and any structures  
24 that house GTE network facilities on public rights-of-way, so  
25 long as collocation is technically feasible, space is available,

1 reasonable security arrangements can be provided, and  
2 AT&T pays all costs associated with the requested  
3 collocation.

4

5 (3) *Can AT&T demand virtual collocation as an option even*  
6 *where physical collocation is available?*

7

8 **AT&T's Position:** AT&T should have the option of choosing  
9 virtual collocation as an alternative to physical collocation.

10

11 **GTE's Position:** GTE supports virtual collocation, but the  
12 Commission does not have the authority to mandate virtual  
13 collocation as an alternative without first determining that  
14 physical collocation is infeasible.

15

16 Pending judicial review of the FCC's Order, GTE will provide  
17 virtual collocation where technically feasible and space is  
18 available, so long as AT&T pays all costs associated with the  
19 requested collocation.

20

21 (4) *May GTE require the implementation of reasonable safety*  
22 *and security measures when collocation is established?*

23

24 **AT&T's Position:** No security restrictions should be imposed  
25 without a substantial and detailed showing of their necessity.

1           **GTE's Position:** It is logical and necessary to establish  
2           reasonable security measures to protect GTE's private  
3           facilities, as well as the equipment of collocators, from  
4           unauthorized access which could lead to damage of  
5           equipment or disruption of service.

6

7           (5)   *Must GTE permit two collocators to cross-connect with each*  
8           *other, thereby using GTE's facility to bypass its own*  
9           *network?*

10

11           **AT&T's Position:** There should be no prohibitions against  
12           non-GTE carriers interconnecting with one another on GTE's  
13           premises.

14

15           **GTE's Position:** The Act does not require collocators housed  
16           on GTE property to cross-connect with each other in order  
17           to bypass GTE's network.

18

19           Pending judicial review of the FCC's Order, GTE will permit  
20           the interconnection via cross-connects of the collocated  
21           equipment of different ALECs under the following conditions:  
22           (1) the provisioning of the cross-connect by GTE or the  
23           ALECs shall be at the option of GTE, (2) the connected  
24           equipment is used for interconnection with GTE or access to  
25           GTE's unbundled network elements, (3) adequate space is

1 available, (4) reasonable security arrangements can be  
2 provided, and (5) the ALECs pay all costs associated with  
3 the cross-connect.

4

5 **Q. ARE AT&T'S POSITIONS ON THESE ISSUES CONSISTENT WITH**  
6 **THE ACT?**

7 **A. No. AT&T is not seeking simply to collocate equipment "necessary**  
8 **for interconnection or access to unbundled network elements" on**  
9 **GTE premises as the Act allows, (at § 251(c)(6) (emphasis added)),**  
10 **or even equipment that is "used or useful" for that purpose.**  
11 **Rather, AT&T seeks to use GTE's property whenever it is to**  
12 **AT&T's convenience or advantage to do so. Section 251(c)(6) of**  
13 **the Act does not support the positions AT&T has taken in**  
14 **negotiations with respect to collocation.**

15

16 GTE's lawyers have advised me that, even where the FCC has  
17 agreed in part with AT&T, its Order is not consistent with the  
18 scope of its authority to order collocation under the principles of  
19 statutory construction enunciated in the District of Columbia Circuit  
20 Court of Appeal's 1994 decision overturning the FCC's previous  
21 physical collocation mandate. (See Bell Atlantic Tel. Cos. v. FCC,  
22 24 F.3d 1441, 1445 (D.C. Cir. 1994).) There, the Court said that:  
23 "The Commission's decision to grant CAPs the right to exclusive  
24 use of a portion of the petitioners' central offices directly implicates  
25 the . . . Fifth Amendment"; and that agencies may not "use

1 statutory silence or ambiguity to expose the Treasury to liability  
2 both massive and unforeseen." The takings issue is addressed in  
3 detail in GTE's Takings Report, included in the Company's  
4 Response to AT&T's Petition for Arbitration.

5  
6 Accordingly, GTE maintains its negotiating positions on the  
7 disputed issues, but offers alternative interim positions on several  
8 issues should the Commission determine the FCC's conclusions to  
9 be binding pending judicial review. It is important to keep in mind  
10 that collocation is a limited measure, designed to remove technical  
11 barriers to new local exchange providers entering the local  
12 telephone market and effectively competing with ILECs.  
13 Collocation is not intended as a vehicle by which new entrants may  
14 avoid offering true facilities-based competition by building their  
15 business on the premises of their competitors. Below, I discuss in  
16 greater detail the justifications for GTE's positions with respect to  
17 the disputed collocation issues.

18

19 **Q. SHOULD AT&T BE PERMITTED TO COLLOCATE ON GTE'S**  
20 **PREMISES ANY EQUIPMENT IT CHOOSES?**

21 **A.** No. In negotiations, AT&T has taken the position that Section  
22 251(c)(6) permits it to place any type of equipment on GTE's  
23 premises, including switches, enhanced services equipment (such  
24 as voice messaging equipment), and customer premises equipment  
25 ("CPE"). This position completely disregards the plain language of

1 the provision which limits collocated equipment to that "necessary  
2 for interconnection or access to unbundled network elements." 47  
3 U.S.C. § 251(c)(6) (emphasis added). While the FCC's  
4 interpretation of the "necessary" qualifier as "used or useful" is  
5 questionable, the FCC correctly concludes that switching  
6 equipment, enhanced services equipment and CPE may not be  
7 collocated. (Order at ¶¶ 579-82.) Thus, both the Act and the  
8 Order foreclose AT&T's demand to collocate on GTE facilities  
9 equipment that is not necessary. Necessity, not convenience, is  
10 the touchstone of collocation under the Act.

11

12 **Q. IS COLLOCATION OF ANY AND ALL TYPE OF EQUIPMENT**  
13 **NECESSARY TO ACHIEVE THE ACKNOWLEDGED PRO-**  
14 **COMPETITIVE GOALS OF INTERCONNECTION?**

15 **A.** No. The fundamental purpose of the "interconnection and access"  
16 provisions is to enable an interconnector to use ILEC network  
17 components without having to purchase complete switched access  
18 or exchange service. As the FCC has stated, a "fundamental  
19 purpose of expanded interconnection . . . is to allow  
20 interconnectors to use LEC switches without having to purchase  
21 the LECs' end-to-end switched access services. If interconnectors  
22 want to do their own switching, they may place switches on their  
23 own property." (Expanded Interconnection with Local Tel. Co.  
24 Facilities, CC Docket No. 91-41, and Amendment of Part 36, CC  
25 Docket No. 80-286, Second Report and Order and Third Notice of

1 Proposed Rulemaking, 8 FCC Rcd 7374 (1993) ("Switched Access  
2 Order") at ¶ 62, (quoting PacTel Comments at 46-47).)

3

4 The FCC has recognized the importance of limiting the types of  
5 equipment that must be collocated on a LEC's premises to  
6 equipment that is necessary and directly related to the competitive  
7 provision of basic transmission service, and it has consistently  
8 rejected suggestions that LECs be required to provide collocation  
9 of enhanced services equipment, customer premises equipment,  
10 switches, or other non-transmission equipment: "LECs are not  
11 required to provide collocation of enhanced services, customer  
12 premises, or other non-transmission equipment." (Special Access  
13 Order at ¶ 63.); "In our earlier orders, we required LECs to permit  
14 interconnectors to place . . . in LEC central offices only equipment  
15 needed to terminate basic transmission facilities . . . [w]e conclude  
16 that the same principles should apply [for the policies] we adopt in  
17 this order". (Expanded Interconnection with Local Tel. Co.  
18 Facilities, Memorandum Opinion and Order, 9 FCC Rcd 5154  
19 (1994) ("Virtual Collocation Memorandum and Order") at ¶ 94.)  
20 Congress was clearly aware of this history when it enacted Section  
21 251(c)(6).

22

23 **Q. WHAT HARM IS THERE IN ALLOWING AT&T TO PLACE ANY TYPE  
24 OF EQUIPMENT IT WANTS TO ON GTE'S PREMISES?**

25 **A.** There are numerous negative effects, all of which will ultimately



1       harm consumers. If AT&T were permitted to place any type of  
2       equipment it wished on GTE's premises, it would quickly exhaust  
3       existing space available for collocation. For example, if the first  
4       party seeking collocation were allowed to install large switches,  
5       circuit termination equipment, enhanced services equipment, and  
6       customer premises equipment, inadequate space would be available  
7       for other competitors to collocate equipment essential to offering  
8       basic services. That first collocater--perhaps AT&T--would be able  
9       to monopolize the limited amount of usable space in GTE's  
10      facilities, and deny other interconnectors the opportunity to  
11      collocate on GTE's premises in order to compete directly with  
12      AT&T and GTE. Such a result would contravene the goals of the  
13      Act.

14  
15      Allowing any one interconnector to use up portions of GTE's  
16      facilities with equipment unrelated to providing basic service would  
17      give rise to other adverse consequences. First, it would impinge on  
18      GTE's ability to upgrade its equipment and expand its services.  
19      Second, the placement of extraneous equipment would place  
20      additional demands on the facility's power supply. Switches, for  
21      example, demand an inordinate amount of power, and significant  
22      modifications would be required to power that equipment if AT&T  
23      were permitted to install a switch. Third, similar modifications  
24      would be required to maintain the environmental stability required  
25      by central office equipment. The public ultimately would bear these

1 unnecessary costs in exchange for limited or no competitive  
2 benefits. It follows that AT&T's position is inconsistent with  
3 Congress' intent to provide limited use of ILEC property for targeted  
4 pro-competitive purposes.

5

6 **Q. WHAT TYPE OF EQUIPMENT SHOULD AT&T BE PERMITTED TO**  
7 **COLLOCATE ON GTE'S PREMISES?**

8 **A.** Under the language of the Act, AT&T should be permitted to install  
9 only equipment that must be near GTE network elements in order  
10 to make interconnection technically feasible. Such equipment is  
11 limited to concentration and circuit termination equipment (including  
12 optical line terminating equipment and multiplexers). Concentration  
13 equipment aggregates multiple loops to a single loop for more  
14 efficient transport. Termination equipment allows an ALEC to  
15 convert the optical signals on its loops to electrical signals that can  
16 be used by GTE's network equipment. Because current cross-  
17 connection technology limits the maximum distance between these  
18 various pieces of equipment, collocation is necessary and should be  
19 permitted for concentration and termination equipment. No similar  
20 justification exists for collocating switches, enhanced services  
21 equipment and customer premises equipment. Thus, to the extent  
22 the FCC's "used or useful" test may be viewed as broader than  
23 GTE's position or may be argued in the future to require collocation  
24 of additional or different equipment than that described above, GTE  
25 submits that such a construction would be contradicted by the Act

1           itself. In any case, the FCC left to State commissions the  
2           determination whether particular equipment not discussed in the  
3           Order is entitled to collocation. (Order at ¶ 581.)

4

5   **Q.    SHOULD AT&T BE PERMITTED TO COLLOCATE AT ANY AND ALL**  
6   **OF GTE'S BUILDINGS AND STRUCTURES?**

7   **A.    No. AT&T believes that it should be permitted to collocate its**  
8           **equipment at any GTE location it chooses, including vaults and**  
9           **remote units. Again, AT&T's collocation position is not limited to**  
10          **what is necessary for interconnection and fails to consider space**  
11          **limitations. Many of GTE's buildings and structures are very small**  
12          **and house network elements that do not perform routing or rating**  
13          **functions. Therefore, interconnection and collocation at many of**  
14          **those points offers few benefits that cannot be obtained by**  
15          **collocating either at a central office (where calls are routed to and**  
16          **from customers), a serving wire center (the office closest to an**  
17          **interexchange carrier's point of presence which serves as a rating**  
18          **point, but provides no switching), or a tandem switch (which routes**  
19          **calls from one central office to another). These latter facilities offer**  
20          **much greater space, the proper environmental conditions, and allow**  
21          **more efficient maintenance and repair of equipment.**

22

23   **Q.    SHOULD COLLOCATION BE PERMITTED AT REMOTE UNITS?**

24   **A.    Remote units, which are smaller structures housing certain network**  
25          **elements located some distance away from the central office, must**

1 be evaluated on an ad hoc basis. GTE maintains two types of  
2 remote units. Remote switching units ("RSUs") have some  
3 independent switching capability and may direct local transmission  
4 traffic within a particular area. Remote line units ("RLUs"), by  
5 contrast, contain no such independent capability. RLUs interact  
6 with the switch at the central office, which acts as the host  
7 computer, directing transmission traffic. (Host switches and RLUs  
8 often share NXX codes, making it impossible to route terminating  
9 traffic to a RLU.) Many remote units also lack "rating" capability--  
10 the ability to measure and record traffic flow data for billing and  
11 other purposes.

12  
13 Remote units are very small and offer very little space to  
14 accommodate collocators. The cramped confines of these facilities  
15 also make it difficult to segregate adequately different companies'  
16 equipment and to limit third-party access. Consequently, few, if  
17 any, ALECs will be able to place equipment in these structures.  
18 Since "dumb" remote units, such as RLUs, offer no significant  
19 benefits over central offices, serving wire centers and tandem  
20 switches (which contain routing and switching functions, have  
21 greater space, and offer the proper environmental conditions), GTE  
22 believes that collocation should not be permitted at such locations.  
23 For the same reasons, GTE opposes collocation at vaults and  
24 manholes which also have very limited space and which, like RLUs,  
25 house no routing or rating equipment.

1 GTE recognizes that the FCC's Order requires collocation to be  
2 provided at all structures that house GTE network facilities,  
3 including "any structures that house LEC network facilities on  
4 public rights-of-way, such as vaults containing loop concentrators  
5 or similar structures." (Order at ¶¶ 573-75.) I have been advised  
6 by GTE's lawyers, however, that such an expansion of the FCC's  
7 earlier collocation requirements is unauthorized under the  
8 Telecommunications Act and, hence, outside the FCC's power.  
9 (See Bell Atlantic, cited earlier, 24 F.3d at 1441; see also GTE's  
10 Takings Report, detailing 5th Amendment considerations). To the  
11 extent the Commission deems itself to be bound by the FCC's  
12 holding in this regard, GTE would be willing, pending judicial review  
13 of the FCC's determination, to provide collocation at such  
14 structures to the extent space is available, the interconnection  
15 requested is technically feasible, security concerns can be  
16 adequately addressed, and the collocator bears the costs of the  
17 collocation arrangement.

18  
19 Collocation at RSUs or remote units that offer independent routing  
20 or routing capability do provide greater interconnection benefits, but  
21 they too suffer from severe space limitations. Nonetheless,  
22 because RSUs contain some unique network functions, GTE will  
23 provide collocation at these sites where space is available, the  
24 requested interconnection is technically feasible, security concerns  
25 can be adequately addressed, and the collocator pays all costs of

1 the collocation arrangement. This position is consistent with the  
2 FCC's prior collocation policies. (See Special Access Order at ¶  
3 53-57.)

4  
5 **Q. SHOULD AT&T BE PERMITTED TO DEMAND VIRTUAL**  
6 **COLLOCATION EVEN WHEN PHYSICAL COLLOCATION IS**  
7 **AVAILABLE?**

8 A. No. AT&T requests that the Commission mandate virtual  
9 collocation as an alternative to physical collocation, even where the  
10 latter can be provided. GTE strongly supports virtual collocation  
11 and is willing to pursue such arrangements in voluntary  
12 negotiations. However, GTE believes that the Act does not allow  
13 the Commission to require virtual collocation as an option unless  
14 the Commission finds that "physical collocation is not practical for  
15 technical reasons or because of space limitations." (Act at  
16 251(c)(6).) I have been advised by GTE's lawyers that virtual  
17 collocation involves a "taking" of ILEC property for the benefit of  
18 another, and, under the principle of statutory construction  
19 applicable to takings enunciated in Bell Atlantic v. FCC, both the  
20 FCC and this Commission are bound by the express language and  
21 qualifications delineated by Congress. (See Bell Atlantic, 24 F.3d  
22 at 1445-46; GTE's Takings Report.) It follows that, where physical  
23 collocation can be provided by an ILEC, virtual collocation need not  
24 be offered as an option except by mutual agreement.

25

1 GTE recognizes that the FCC's Order requires virtual collocation to  
2 be provided at the option of the requesting ALEC. (Order at ¶  
3 551.) As explained above, however, GTE disagrees with the FCC's  
4 analysis. Nonetheless, to the extent the Commission deems itself  
5 to be bound by the FCC's determination in this regard, GTE would  
6 be willing, pending judicial review of the FCC's decision, to provide  
7 virtual collocation to the extent space is available, the requested  
8 interconnection is technically feasible, and the collocator pays all  
9 costs of the virtual collocation arrangement.

10

11 **Q. SHOULD GTE BE PERMITTED TO IMPLEMENT REASONABLE**  
12 **SAFETY AND SECURITY MEASURES TO PROTECT ITS SYSTEMS?**

13 **A.** Yes. Collocating two competitors in the same facility gives rise to  
14 certain unavoidable risks. Under the Act, GTE will be required to  
15 permit a third party competitor to have access to its private  
16 facilities which house highly sensitive equipment and proprietary  
17 information. Similarly, those parties that choose to collocate on  
18 GTE property also will have their equipment exposed to third-party  
19 access. It is reasonable in this highly unusual situation to establish  
20 security measures, such as partitioning areas for collocating parties  
21 and installing fencing within the partitioned areas for each  
22 collocator. This ensures that no party has access to any other  
23 party's equipment. As the FCC has recognized, such measures  
24 minimize the risk of harm to the public switched telephone network  
25 and are in the best interests of all the parties. (Order at ¶ 598.)

1 Q. SHOULD AT&T BE PERMITTED TO CROSS-CONNECT WITH NON-  
2 GTE COLLOCATORS ON GTE PROPERTY?

3 A. No. AT&T argues that the Act requires GTE to allow collocators on  
4 its premises to completely bypass GTE's network and cross-  
5 connect with each other. Although nothing in the language of the  
6 Act suggests that Congress contemplated such action, the FCC  
7 recently has required that, at the option of the ILEC, such cross-  
8 connects be made available through ILEC-provided or ALEC-  
9 provided facilities. (Order at ¶ 595.) GTE's Legal Department has  
10 determined that this requirement works a "taking" of ILEC property  
11 in excess of the FCC's authority under the Act under Bell Atlantic  
12 v. FCC. (See GTE's Takings Report.)

13  
14 The Act imposes a duty on ILECs only to interconnect their network  
15 elements with a requesting party's collocated equipment. It does  
16 not impose a duty to facilitate interconnection between third-parties  
17 anywhere, much less on its own premises. In other words,  
18 collocation authorized under section 251 only permits third parties  
19 to make use of their competitors' private property for the limited  
20 purpose of gaining access to critical network elements that are in  
21 the ILEC's control. Collocation is not an open invitation for ALECs  
22 to use ILEC property for purposes wholly unrelated to the ILECs'  
23 network.

24  
25 Finally, while GTE recognizes that this Commission has ordered



1 ILECs to allow third-party cross-connections in its Order number  
2 PSC-96-0445-FOF-TP, that Order is subject to appeal before the  
3 Florida Supreme Court. GTE, therefore, maintains its opposition to  
4 such cross-connects.

5  
6 Nonetheless, should the Commission deem itself bound to follow its  
7 own and the FCC's Order pending judicial review, GTE will permit  
8 the interconnection via cross-connects of the collocated equipment  
9 of different ALECs as long as the provisioning of the cross-connect  
10 by GTE or the ALECs shall be at the option of GTE, the connected  
11 equipment is used for interconnection with GTE or access to GTE's  
12 unbundled network elements, space is available, reasonable  
13 security arrangements can be provided, and the ALECs pay all  
14 costs associated with the cross-connect.

15

16 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

17 **A.** The Act was passed to introduce competition into the local  
18 telephone market. It recognizes that certain functions of the  
19 traditional local exchange network cannot be quickly or easily  
20 duplicated by new market entrants, and that competing providers  
21 will have to be interconnected in order to switch traffic among their  
22 customers. Collocation is a limited measure designed to remove  
23 technical and market barriers to interconnection and access to  
24 network elements. Because state-mandated physical occupation of  
25 a company's private property may offend the Constitution,

1 Congress was careful to limit collocation to equipment "necessary  
2 for interconnection." AT&T, however, goes far beyond what is  
3 necessary and seeks to collocate wherever and whenever AT&T  
4 finds it convenient and advantageous to do so. Accordingly, the  
5 Commission should adopt GTE's preferred positions as set out  
6 above or, at a minimum, GTE's alternative positions as conditioned  
7 herein and subject to judicial review of the FCC's Order.

8

9 Q. DOES THAT CONCLUDE YOUR TESTIMONY?

10 A. Yes.

11

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**GTE FLORIDA INCORPORATED**  
**DIRECT TESTIMONY OF JOHN W. RIES**  
**DOCKET NO. 960980-TP**

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

A. My name is John W. Ries. My business address is 600 Hidden Ridge, Irving, TX, 75038.

**Q. ARE YOU THE SAME JOHN W. RIES WHO SUBMITTED DIRECT TESTIMONY FOR GTE IN ITS RESPONSE TO AT&T'S PETITION FOR ARBITRATION IN DOCKET 960847-TP?**

A. Yes, I submitted that Testimony on September 10, 1996.

**Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?**

A. It described the collocation requirements under the Telecommunications Act of 1996 (Act) and presented GTE's position on the collocation issues that have been contentious in GTE's negotiations with AT&T.

**Q. ARE MOST OF THOSE SAME ISSUES RAISED BY MCI'S PETITION FOR ARBITRATION?**

A. Yes, I believe that the respective Petitions for Arbitration of AT&T and MCI present fundamentally the same collocation issues. GTE's response to these two companies will thus be essentially the same.

1           For this reason, I am adopting my testimony in the AT&T arbitration  
2           as my testimony in this arbitration with MCI. This approach avoids  
3           undue repetition, and is consistent with my understanding that the  
4           Commission has consolidated the MCI and AT&T proceedings. To  
5           the extent that there are any MCI-specific issues and positions that  
6           must be addressed, I will do so in my Rebuttal Testimony.

7

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

9           **A.    Yes, it does.**

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**GTE FLORIDA INCORPORATED**  
**REBUTTAL TESTIMONY OF KIRBY D. CANTRELL**  
**DOCKET NO. 960847-TP**

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

**A. My name is Kirby D. Cantrell. My business address is 201 N. Franklin Street, Tampa, Florida 33601.**

**Q. WHO IS YOUR EMPLOYER AND WHAT IS YOUR POSITION?**

**A. I am employed by GTE Florida Incorporated (GTEFL) as Technical Support Administrator in Carrier Markets.**

**Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

**A. I graduated from the University of Florida in 1972 with a Bachelor of Science degree in Business Administration. I joined GTEFL in 1973 and have held management positions in Sales, Product Management and Carrier Markets.**

**Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT POSITION?**

**A. I am responsible for providing technical support for alternative local exchange carriers accessing GTEFL's network, and I am the GTE collocation administrator for Florida.**

**Q. DID YOU SUBMIT DIRECT TESTIMONY IN THIS PROCEEDING?**

1       A.    No, I did not, but I am hereby adopting the Direct Testimony of  
2           John W. Ries. Given the large number of arbitration proceedings  
3           GTE Operating Companies must participate in throughout the  
4           country, scheduling conflicts are inevitable for the limited number  
5           of witnesses who can testify on a particular subject. Therefore,  
6           witness substitutions, as in this case, are sometimes necessary.

7

8       **Q.    WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

9       A.    I will respond to certain of AT&T's positions on various aspects  
10          of collocation.

11

12       **Q.    AT&T BELIEVES THAT ALECS SHOULD BE ALLOWED TO**  
13          **RESERVE SPACE FOR FUTURE USE UNDER THE SAME**  
14          **PLANNING HORIZONS THE ILEC USES. IS THIS A REASONABLE**  
15          **POSITION?**

16       A.    No. The planning horizon for an ILEC that offers switching  
17          functionality is necessarily much more complex and involved than  
18          the planning horizon an interconnector requires for deployment of  
19          equipment necessary for interconnection. Thus, GTEFL believes  
20          a 5-year planning horizon is reasonable for reserving space for  
21          future uses. GTEFL is offering numerous unbundled network  
22          components (i.e., loops, ports, switching) and therefore must  
23          adequately plan the growth of existing services along with  
24          accommodating new services. Moreover, any enhanced  
25          switching functionality will be available for all end users and will

1 benefit all entrants that purchase network services. The more  
2 services sold to an ALEC, the more room GTEFL will need for  
3 expansion.

4

5 **Q. DOES A COLLOCATION CUSTOMER HAVE SIMILAR NEEDS FOR**  
6 **SPACE RESERVATION?**

7 **A.** No. The Act requires all collocation customers to interconnect  
8 with the ILEC; the collocation customers have no analogous  
9 requirement. Further, interconnection equipment does not  
10 necessitate switching functionality; only transmission,  
11 multiplexing, and concentration equipment is needed for  
12 connection to network elements. Therefore, the amount of floor  
13 space, and the associated planning horizon of a collocating ALEC  
14 is much different from that of GTEFL.

15

16 **Q. HOW DOES THE FCC ORDER INTERPRET SPACE**  
17 **REQUIREMENTS?**

18 **A.** The FCC Order is internally inconsistent on this point. First, the  
19 FCC correctly concludes that switching equipment may not be  
20 collocated (at ¶579-82). Second, the Order allows ILECs to  
21 reserve a limited amount of space for specific future uses and  
22 allows reasonable restrictions on the warehousing of space (at  
23 ¶586). However, the Order also states that an ILEC may not  
24 reserve space for future use on terms more favorable than those  
25 that apply to other telecommunications carriers seeking to hold

1 collocation space for their own future use. (Order at ¶604.) This  
2 statement is puzzling given that both parties have different  
3 requirements for equipment deployment.

4

5 **Q. WHAT IS GTEFL'S SOLUTION TO THIS SITUATION?**

6 A. GTEFL maintains that a 5-year planning horizon is just and  
7 reasonable for the ILEC to reserve space with documented plans.  
8 GTEFL does not believe that it is necessary to place restrictions  
9 on the amount of floor space a collocator can request. However,  
10 GTEFL believes that if the collocator does not have documented  
11 plans to use their collocation space within a one-year cycle, such  
12 space should be subject to other parties' claims on a first come-  
13 first served basis.

14

15 **Q. WHAT HAS AT&T SUGGESTED IN THE EVENT THAT ADEQUATE**  
16 **SPACE FOR COLLOCATING IS NOT AVAILABLE?**

17 A. AT&T proposes that if GTEFL does not have space available for  
18 either physical or virtual collocation, it should provide and pay for  
19 the trunking necessary for AT&T to connect designated  
20 equipment in alternative locations. AT&T also believes that  
21 GTEFL should implement build-out requests based upon AT&T's  
22 needs.

23

24 **Q. WHAT IS GTEFL'S RESPONSE TO AT&T'S DEMAND FOR FREE**  
25 **TRUNKING?**



1           A.     GTEFL offers unbundled network elements, but it is not required  
2                   to give these elements away free of charge. In this case, GTEFL  
3                   certainly cannot be penalized for not having foreseen the  
4                   collocation requirement and not having forecasted its competitors'  
5                   space demands. GTEFL must continue to grow its operation to  
6                   support its own end users; doing so in an office where space is  
7                   limited will require alternative network configurations that may  
8                   cost more to deploy. It is not equitable to give one party--in this  
9                   case, the collocating ALEC--preferential cost treatment by  
10                  imposing requirements on the ILEC that will unnecessarily raise its  
11                  costs.

12

13           Q.     **HOW DOES GTEFL RESPOND TO AT&T'S DEMAND FOR BUILD-**  
14                   **OUTS?**

15           A.     The FCC Order concluded that an ILEC is not required to  
16                   construct additional plant in order to satisfy a collocation request.  
17                   (Order at ¶585.) The FCC also requires the ILEC to account for  
18                   collocation demands--just as they do any other service demands--  
19                   when renovating existing facilities and constructing or leasing  
20                   new facilities. GTEFL supports these requirements. However,  
21                   AT&T suggests that GTEFL implement build-outs when and where  
22                   AT&T requests them. This is tantamount to giving AT&T control  
23                   over the ILEC's expansion of its own network. This is not the  
24                   intention of the Act, which clearly states that virtual collocation  
25                   is a viable option if space limitations do not allow for physical

1 collocation. If GTEFL were forced to build out based simply upon  
2 AT&T's wish list, but AT&T was not required to fully compensate  
3 GTEFL for the additional space or forced to inhabit the build-out,  
4 GTEFL may in fact be adding inefficient, vacant real estate.

5

6 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

7 **A. Yes, it does.**

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**GTE FLORIDA INCORPORATED****REBUTTAL TESTIMONY OF KIRBY D. CANTRELL****DOCKET NO. 960980-TP**

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6             who can testify on a particular subject. Therefore, witness  
7             substitutions, as in this case, are sometimes necessary.

8

9

10      **Q.     WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

11      A.     I will respond to MCI's requests and positions with regard to  
12             collocation.

13

14      **Q.     MCI ASSERTS (IN ITS PETITION AT 18) THAT GTEFL MUST GIVE**  
15             **MCI THE OPTION TO CONVERT EXISTING VIRTUAL**  
16             **COLLOCATION ARRANGEMENTS TO PHYSICAL**  
17             **COLLOCATIONS, AND THAT GTEFL MUST BEAR THE COST OF**  
18             **THESE CONVERSIONS? IS THAT A REASONABLE POSITION?**

19      A.     GTEFL will allow conversion of virtual collocation arrangements to  
20             physical arrangements when space permits. The physical collocation  
21             arrangement would be provided at tariffed rates. It is unreasonable,  
22             however, to expect GTEFL to bear the costs for MCI's decision to  
23             convert its virtual arrangements to physical ones. MCI is the cost  
24             causer in this instance, and there is no legitimate, pro-competitive  
25             reason to allow it to arbitrarily raise GTEFL's costs by ordering all of

1 its virtual arrangements to be converted to physical collocations for  
2 free.

3

4 **Q. WILL GTEFL AGREE TO MCI'S REQUEST (AT PAGE 18 OF ITS**  
5 **PETITION) TO CONNECT GTEFL-PROVIDED SERVICES AND**  
6 **UNBUNDLED ELEMENTS AT A MCI COLLOCATION SITE TO ANY**  
7 **OTHER FACILITY PROVIDED BY MCI, GTEFL, OR ANY OTHER**  
8 **PARTY?**

9 A. The Act imposes a duty on ILECs only to interconnect their network  
10 elements with a requesting party's collocated equipment. It does not  
11 impose a duty to facilitate interconnection between third-parties  
12 anywhere, much less on its own premises. In other words, collocation  
13 authorized under section 251 only permits third parties to make use  
14 of their competitor's private property for the limited purpose of gaining  
15 access to critical network elements that are in the ILEC's control.  
16 Collocation is not an open invitation for ALECs to use ILEC property  
17 for purposes wholly unrelated to the ILEC's network.

18

19 GTEFL believes the Commission should not feel bound to follow the  
20 FCC's Order, especially since it has been stayed for the time being.  
21 Nonetheless, should the Commission deem itself bound to follow the  
22 FCC's Order pending judicial review, GTE will permit the  
23 interconnection via cross-connects of the collocated equipment of  
24 different ALECs as long as the provisioning of the cross-connect by  
25 GTEFL or the ALECs shall be at GTEFL's option, the connected

1 equipment is used for interconnection with GTEFL or access to  
2 GTEFL's unbundled network elements, space is available,  
3 reasonable security arrangements can be provided, and the ALECs  
4 pay all costs associated with the cross-connect.

5

6 **Q. IS GTEFL WILLING TO ALLOW MCI TO COLLOCATE**  
7 **SUBSCRIBER LOOP ELECTRONICS, SUCH AS DIGITAL LOOP**  
8 **CARRIER, IN THE CENTRAL OFFICE, AS MCI WITNESS CAPLAN**  
9 **PROPOSES?**

10 A. Yes. The Act states that basic transmission equipment, which is  
11 essential for interconnection, may be collocated. GTEFL agrees that  
12 subscriber loop electronics, such as Digital Loop Carrier, fit within this  
13 category. Equipment which provides switching functionality,  
14 however, will not be allowed. GTEFL's position is consistent with the  
15 FCC's on this point.

16

17 **Q. MR. CAPLAN ALSO BELIEVES THAT MCI SHOULD BE ABLE TO**  
18 **PURCHASE UNBUNDLED DEDICATED TRANSPORT TO THE**  
19 **COLLOCATION FACILITY, RATHER THAN PHYSICALLY**  
20 **CONSTRUCT FROM ITS OWN NETWORK TO GTEFL'S CENTRAL**  
21 **OFFICE. IS THIS POSITION REASONABLE?**

22 A. GTEFL will agree to this request. It will allow customers to purchase  
23 transport services in order to connect to their collocation equipment,  
24 in lieu of the customer having to construct its own facility to connect  
25 to its equipment. This is consistent with the FCC's position that the

1 collocator is not required to construct transmission facilities to the  
2 ILEC central office (FCC Order at ¶ 590.)

3

4 **Q. DOES MCI HAVE A RIGHT TO DEMAND VIRTUAL COLLOCATION**  
5 **OVER PHYSICAL IN ANY PARTICULAR INSTANCE?**

6 A. No. I don't believe this is required under the Act, which states that  
7 ILECs must offer physical collocation, with virtual collocation as an  
8 option only if physical is unavailable. Although GTEFL believes ILECs  
9 should have the option of offering virtual collocation as an alternative  
10 to physical, it does not believe virtual collocation can be lawfully  
11 mandated. This legal issue is treated in more detail in GTEFL's  
12 Takings Report, included in its Response to MCI's arbitration petition.

13

14 **Q. SHOULD THE COMMISSION MANDATE A MAXIMUM INTERVAL**  
15 **OF THREE MONTHS FOR ILECS TO ESTABLISH PHYSICAL**  
16 **COLLOCATIONS AND TWO MONTHS FOR VIRTUAL**  
17 **COLLOCATIONS?**

18 A. No. GTEFL believes the Act was intended to reduce unnecessary  
19 and unworkable regulations, not add to them, as MCI's proposal  
20 would. Every collocation is different--there are numerous variables  
21 that factor into any given construction--so that it is unrealistic to  
22 impose maximum intervals for establishing collocation. It is also  
23 unnecessary. In GTEFL's experience, it has consistently been ready  
24 for installation and testing before the collocator is prepared to make  
25 use of the space. Furthermore, experience shows that MCI's two and

1 three month collocation establishment deadlines are impractical.  
2 Every virtual collocation site in Florida has required a minimum of six  
3 months to complete. The primary reasons for this time frame are the  
4 permitting and placement of fiber optic cable and delays in delivery  
5 of the collocator's equipment.

6

7 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

8 **A. Yes, it does.**

9 (Transcript follows in sequence in Volume 11.)

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