



GTE Telephone Operations

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October 7, 1996 - VIA FACSIMILE

Ms. Blanca S. Bayo, Director
Division of Records & Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket Nos. 960847-TP and 960980-TP
Petitions by AT&T Communications of the Southern States, Inc.,
MCI Telecommunications Corporation and MCI Metro Access
Transmission Services, Inc. for arbitration of certain terms and conditions
of a proposed agreement with GTE Florida Incorporated concerning
interconnection and resale under the Telecommunications Act of 1996

Dear Ms. Bayo:

Enclosed are an original and fifteen copies of the Rebuttal Testimony of Larry Hartshorn in Docket No. 960980-TP. This Testimony is intended to replace the original Rebuttal Testimony filed by Mr. Hartshorn in this proceeding on September 30, 1996. Please replace that version of Mr. Hartshorn's Rebuttal Testimony with the enclosed version.

Because of a clerical error, Mr. Hartshorn's Rebuttal Testimony in the AT&T portion of this docket was resubmitted (with only the docket number changed), rather than the MCI-specific Rebuttal Testimony that should have been submitted. GTEFL does not believe any party will be prejudiced by GTEFL's correction of this inadvertent

A part of GTE Corporation

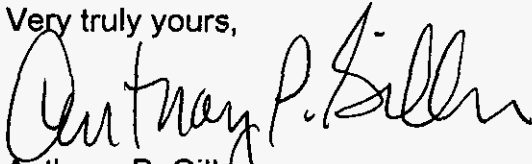
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FPSC - COMMISSION CLERK
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Blanca S. Bayo
October 7, 1996
Page 2

administrative error. The Rebuttal Testimony is not long (less than 10 pages), but it includes a few important points that will help to explain certain issues in this docket. GTEFL believes that the Commission will benefit from having this additional information.

If you have any questions, please contact me.

Very truly yours,



Anthony P. Gillman

APG:tas
Enclosures
Airborne

c: Donna Canzano, Esq. (w/e - via facsimile and overnight mail)
Tracy Hatch, Esq. (w/e - via facsimile and overnight mail)
Richard Melson, Esq. (w/e - via facsimile and overnight mail)

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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

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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 network infrastructure growth and modernization, including
7 outside plant cable and electronics, central office equipment, and
8 interoffice facilities as well as developing infrastructure necessary to
9 deliver new products and services to customers.

10

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

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

14

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

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

23

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

25 A. I will respond to certain unbundling and related demands by MCI.

1 **Q. DOES THE ACT REQUIRE GTEFL TO PROVIDE MCI ACCESS TO**
2 **GTEFL'S UNUSED TRANSMISSION MEDIA, AS MCI'S WITNESS**
3 **CAPLAN SUGGESTS?**

4 A. No. Unused transmission media--for the most part, dark fiber--is, by
5 definition, not a network element subject to unbundling. The Act
6 defines network element to include only those facilities that are "used
7 in the provision of a telecommunications service." (Act at sec. 3(45)
8 [emphasis added].) Dark fiber consists of fiber cable that is not
9 equipped with the electronics necessary to enable voice or data to
10 pass through it. In effect, dark fiber bears the same relationship to
11 the network that a line of poles does before cable is attached to it.
12 Because ILECs do not use dark fiber in their networks--transport
13 circuits must be "lit" to be used--dark fiber does not meet the statutory
14 definition. Therefore, GTEFL should not be compelled to provide it
15 to AT&T and MCI in this proceeding. In addition, GTEFL cannot
16 agree with MCI's requests for GTEFL to provide information on dark
17 fiber as requested by MCI.

18
19 **Q. ASIDE FROM THE FACT THAT ACCESS TO DARK FIBER IS NOT**
20 **REQUIRED BY THE ACT, ARE THERE POLICY REASONS TO**
21 **DENY SUCH ACCESS TO ALECS?**

22 A. Yes. First, dark fiber is spare equipment. It is similar to fiber cable
23 that is stored on a reel in a GTEFL warehouse. It has been placed in
24 the ground because, from a network planning perspective, it makes
25 better economic sense for the fiber cable to be in the ground than it

1 does for it to still be on a cable reel in the warehouse.

2

3 Planning the network in a cost-efficient way is very important to
4 GTEFL, which expends a lot of effort and expense in this respect.

5 One of GTEFL's planning considerations is the cost of placing spare
6 cable now, as opposed to the cost of placing additional cable later.

7 It is often more cost-effective for GTEFL to place the cable sooner
8 rather than later. Cost considerations include right-of-way issues and
9 the labor associated with cable placement.

10

11 GTEFL plans its cable for its anticipated use. Allowing other parties
12 to take advantage of GTEFL's spare cable placement negates its
13 planning process. This would inevitably result in situations where
14 GTEFL would have to place additional cable at a later date, incurring
15 the associated costs that it would not otherwise bear. From a network
16 planning perspective, this is inefficient for GTEFL.

17

18 Furthermore, MCI's proposal could lead to situations in which GTEFL
19 would have to deny service to an end user because another party
20 had "used up" GTEFL's spare capacity. ALECs will not route traffic
21 or design their networks in the same way GTEFL does. They will
22 have a different set of customers than GTEFL currently has and will
23 build their networks to serve those specific customers. There will
24 undoubtedly be situations where an ALEC will route more traffic
25 through a segment of the network than GTEFL would have. If this

1 happens to be a portion of the network that the ALEC has provisioned
2 by using its spare capacity, GTEFL could wind up with a capacity
3 problem.

4

5 **Q. CAN YOU PROVIDE AN ANALOGY THAT WILL ILLUSTRATE**
6 **HOW ALLOWING ALECS ACCESS TO GTEFL'S DARK FIBER**
7 **WILL DISRUPT ITS NETWORK PLANNING PROCESS?**

8 A. Yes. Pretend that I work in the city, but I live 40 miles out into the
9 country. I drive to work and back. There are no gas stations between
10 my home and town. Therefore, I have to plan my gas purchases
11 ahead. The system works well as long as I remember to plan ahead
12 as I leave town each night for home. If I do so, I will not run out of
13 gas before I get back into town the next day. The process is well-
14 established and it works.

15

16 One day, a house is built just down the road from mine. Shortly
17 thereafter, a family moves in. I go over to meet my new neighbor. It
18 turns out that she works in the same city that I do and that she drives
19 to work. However, she leaves for work 3 hours before I do, while I am
20 still asleep, and returns home 3 hours before I do, while I am still at
21 work.

22

23 She asks me that, to ensure that she never runs out of gas on her
24 way to work, could I let her, if she is running low, to stop by on her
25 way to work and siphon gas out of my tank and into hers. She notes

1 that she will, of course, reimburse me for the gas.

2

3 What is my response? If I say yes, I will have to restructure my
4 planning process to make sure that I have enough gas to get to work
5 if my neighbor happens to have used the siphon option some
6 morning. In effect, to accommodate this unknown possibility--she
7 tells me she cannot predict how often or when this will occur--I have
8 to get gas more frequently than I used to and make sure I keep a
9 larger reserve.

10

11 If we replace the gas in this analogy with dark fiber, it is not difficult
12 to understand how the ALECs' demands--uncertain as to timing and
13 quantity--will severely undermine GTEFL's ability to efficiently plan its
14 network.

15

16 **Q. COULD YOU COMMENT ON THE COSTS ASSOCIATED WITH**
17 **MCI'S REQUEST FOR ACCESS TO GTEFL'S DARK FIBER?**

18 **A.** Yes. Such access could force GTEFL to incur very significant costs.,
19 both in terms of direct expense and the more indirect costs of the
20 inefficiencies introduced into GTEFL's operations. If other parties are
21 allowed access to dark fiber, GTEFL will need more spare capacity
22 in its network. Further, if there are a number of parties requesting
23 such access--as there certainly will be--and if they do not inform
24 GTEFL in advance as to where they will want dark fiber, GTEFL will
25 have to completely reexamine its network planning criteria in order to

1 continue to provide good service to its own customers.

2

3 **Q. IN THE EVENT THE COMMISSION ORDERS GTEFL TO PROVIDE**
4 **ACCESS TO ITS DARK FIBER, HOW SHOULD IT BE PRICED?**

5 A. I am not an expert on pricing, but I do have some general
6 observations in this respect. The best approach would be to treat
7 dark fiber requests on a case-by-case basis and develop a price
8 which considers the relevant, location-specific costs. However, if the
9 Commission decides a tariff is appropriate—contrary to GTEFL's view-
10 -then the Company will have to estimate where, how often and under
11 what specific circumstances dark fiber requests will occur. This
12 before-the-fact analysis will be much less accurate and potentially
13 more contentious.

14

15

16 **Q. IS IT TECHNICALLY FEASIBLE TO PROVIDE MCI AND OTHER**
17 **ALECS CUSTOMIZED ROUTING FOR OPERATOR ASSISTANCE**
18 **(OA), DIRECTORY ASSISTANCE (DA) AND REPAIR CALLS?**

19 A. No, it is not technically feasible. A good, cost-efficient, long-term
20 solution must be developed. Such a solution does not exist today.
21 The long-term solution may well involve the development of industry
22 standards that will help manufacturers to provide the necessary
23 hardware and software. These vendors will need to endorse any
24 such solution. At present, technical implementation concerns have

25

1 prevented any vendor from supporting any solution, even for the short
2 term.

3

4 **Q. WHAT IS THE TIME FRAME FOR RESOLVING THE PROBLEMS**
5 **RELATIVE TO CUSTOMIZED ROUTING?**

6 A. It is not possible to accurately devise a timetable at this point. I would
7 estimate, however, that the long-term solution might take two years
8 to develop and begin to deploy. This process would involve
9 identifying a solution, developing standards, and manufacturing and
10 deploying hardware and software.

11

12

13 **Q. CAN YOU COMMENT ON THE COSTS ASSOCIATED WITH**
14 **CUSTOMIZED ROUTING?**

15 A. I cannot give cost figures at this point, because I believe the costs will
16 be switch-specific, depending on the type of solution, the type and
17 size of the switch and its capabilities. I am not a costing witness, but,
18 in general, it is GTEFL's position that costs should be recovered from
19 the cost causers for the required modifications—that is, the ALECs.

20

21 **Q. MR. CAPLAN STATES THAT MCI HAS REQUESTED ACCESS TO**
22 **UNBUNDLED LOOP DISTRIBUTION PLANT. WHAT IS GTEFL'S**
23 **POSITION REGARDING THIS REQUEST?**

24 A. GTEFL will allow MCI to interconnect at the feeder distribution
25 interface (FDI) for purposes of accessing GTEFL distribution cable

1 subject to the following conditions: (1) MCI agrees to pay GTEFL to
2 expand or replace the FDI (if required) over and above the
3 established price of the basic loop to accommodate terminating new
4 MCI cable; (2) MCI agrees to pay GTEFL to perform all cross-
5 connects within the GTEFL FDI in addition to the established price of
6 the basic loop; (3) MCI agrees that since GTEFL personnel will
7 perform all cross-connects, MCI personnel will not require access to
8 the FDI; (4) MCI accepts GTEFL's interface specifications and
9 maintenance and administration policies in the event the parties do
10 not reach other agreement on these issues; and (5) cost recovery
11 issues associated with the distribution element are resolved.

12

13 These conditions are reasonable because they reflect GTEFL's valid
14 security concerns and the concept that MCI should pay the costs
15 associated with its requests.

16

17 **Q. MCI HAS REQUESTED ACCESS TO GTEFL'S DIGITAL CROSS-**
18 **CONNECT SYSTEMS. WHAT IS GTEFL'S POSITION IN**
19 **RESPONSE?**

20 **A.** The FCC has stated that access to Digital Cross-Connect Systems
21 should be provided to competitive local exchange carriers on the
22 same basis that ILECs currently provide such access to
23 interexchange carriers. GTEFL will provide such access on that
24 basis.

25

1 Q. IN HIS DIRECT TESTIMONY, MCI WITNESS CAPLAN STATES
2 THAT "BECAUSE OF THEIR FUNCTIONAL SIMILARITY TO DCS,
3 WE INTERPRET THE FCC'S DIRECTIVE TO INCLUDE
4 MULTIPLEXORS SUCH AS M13S AND CHANNEL BANKS." DO
5 YOU AGREE WITH THIS INTERPRETATION?

6 A. No. The function of a DCS is to electronically cross connect digital
7 signals. The function of an M13 is to transition between two levels of
8 the digital hierarchy. The function of the channel bank is to convert
9 analog signals to digital signals. Thus, these three devices have
10 substantially different purposes. MCI's attempt to expand the FCC's
11 ruling on Digital Cross Connect systems to include M13s or channel
12 banks has no sound basis and should be rejected.

13
14 In addition, even if MCI's creative interpretation of the FCC's intention
15 were accepted, the FCC has nevertheless stated that the ILEC would
16 provide such access to ALECs only to the extent that it was provided
17 to interexchange carriers (IXCs). M13s and channel banks are not
18 provided to IXCs today except as part of tariffed services. Similar
19 access would, of course, be provided to MCI upon its request.

20

21 Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?

22 A. Yes, it does.

23

24

25