

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**IN THE MATTER OF THE CONTINUED)
COSTING AND PRICING PROCEEDING)
FOR INTERCONNECTION, UNBUNDLED) DOCKET NO. UT- 003013
ELEMENTS, TRANSPORT AND)
TERMINATION, AND RESALE)**

DIRECT TESTIMONY OF

JOHN J. BOSHIER

GROUP MANAGER-WHOLESALE MARKETS

ON BEHALF OF

GTE NORTHWEST INCORPORATED

SUBJECT: LINE-SHARING POLICY AND TERMS & CONDITIONS

MAY 19, 2000

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I. BACKGROUND INFORMATION AND SUMMARY

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Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND TITLE.

A. My name is John J. Boshier. My business address is 600 Hidden Ridge Drive, Irving, Texas 76015. I am employed by GTE Service Corporation as Group Manager of Wholesale Markets and am representing GTE Northwest Incorporated (“GTE”) in this proceeding.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I received a Bachelor of Arts in Accounting in 1982 from the Catholic University of America in Washington, D. C. I received an MBA in Telecommunications Policy in 1995 from the University of Dallas. I joined Contel Telephone Operations in April 1984 as Analyst in the Revenue Requirements Group of the Revenue Department. After that time, I held various positions of increasing responsibility in Pricing, Tariffs, and Network Marketing. With the merger of Contel and GTE in 1991, I accepted the position of Product Manager with GTE. In January 1993, I was promoted to Senior Product Manager, Wholesale Markets. In September 1996, I was promoted to my current position as Group Marketing Manager – Wholesale Markets. In this capacity, I am responsible for business policy formulation and product development for collocation and unbundled network elements, including line-sharing.

1 **Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE ANY REGULATORY**
2 **COMMISSIONS?**

3 A. Yes. I have testified in Alabama, California, Florida, Maine, New Hampshire, New York,
4 Pennsylvania, South Carolina, Vermont, Virginia, and West Virginia. In addition, I recently
5 filed direct testimony in Texas.

6
7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. The purpose of my testimony is: (1) to provide an overview of line-sharing; (2) to
9 summarize the line-sharing collaborative discussions and negotiations between GTE and
10 various competitive local exchange carriers (CLECs) that resulted in GTE's line-sharing
11 proposal; and (3) to outline GTE's positions on the significant open issues relative to these
12 negotiations and to address certain of these issues within my area of expertise in more detail.

13

14 **II. LINE-SHARING OVERVIEW**

15

16 **Q. WHAT IS LINE-SHARING?**

17 A. Line-sharing is the ability of two different service providers to offer separate
18 telecommunications services over the same line, with each provider employing different
19 frequencies to provide such services. The two services occupy different frequencies or
20 bandwidths on a single copper wire pair. Analog voice services, also known as plain old
21 telephone service (POTS), generally occupy the low frequency band of the line from 300 to
22 3,000 Hz. Asynchronous Digital Subscriber Line (ADSL) services will occupy the high
23 frequency band above 4,000 Hz.

1 **Q. HOW IS LINE-SHARING PROVISIONED?**

2 A. To provision line-sharing, xDSL service is added to a local loop that is being used for
3 "traditional" voice service by deploying special equipment at each end of the end users' local
4 loop. Specifically, passive signal filters, or "splitters," are installed at each end of the end
5 users' loop to accomplish this operation. In most cases, one splitter is installed at the end
6 users' premise, and another at the central office. The central office splitter filters the high
7 frequency data traffic signals from the voiceband signals concurrently traversing the local
8 loop, directing only the voiceband signals through a pair of copper wires to the Class 5
9 switch, while permitting the full frequency spectrum, including the digital traffic, through
10 another pair of copper wires to a digital subscriber line access multiplexer, or DSLAM,
11 attached to the packet-switched network.

12
13 **Q. IS COLLOCATION A PREREQUISITE FOR LINE-SHARING?**

14 A. Yes. The CLEC must place DSLAM equipment, and splitters in GTE's central offices.
15 Additionally, tie-cables must be acquired by the CLEC and installed between the collocation
16 cage and the Main Distribution Frame ("MDF"). All of these requirements are met with
17 GTE's existing collocation offerings contained in our 251/252 interconnection agreements.

18
19 **Q. WHAT ARE THE KEY CONSIDERATIONS REGARDING THE**
20 **IMPLEMENTATION OF LINE-SHARING?**

21 A. First, it is important to recognize that line-sharing between companies has never been done
22 before and many operational issues need to be addressed prior to commercial roll-out of line-
23 sharing service. The Federal Communications Commission ("FCC") initially ordered

1 incumbent local exchange carriers ("ILEC") to provide line-sharing to CLECs by June 6,
2 2000. This six month deadline makes the implementation process challenging. Second, a
3 threshold operational determination is which party, GTE or the CLEC, owns and controls the
4 location of the central office splitter. Among other things, this determination impacts how
5 repair and maintenance take place. Third, because line-sharing is a brand new product
6 offering, new operational support processes must be established, including preordering,
7 ordering and provisioning. Finally, as with other unbundled network element ("UNE")
8 product offerings, pricing is a key consideration.

9
10 **III. COLLABORATIVE LINE-SHARING DISCUSSIONS AND NEGOTIATIONS**

11
12 **Q. HAS GTE DISCUSSED PROPOSED TERMS AND CONDITIONS FOR PROVIDING**
13 **LINE-SHARING WITH ANY OF THE CLECS?**

14 **A.** Yes. GTE has held a number of meetings with various CLECs to discuss issues related to
15 line-sharing and to consider proposed contract language. All parties have acknowledged
16 that, while these efforts have been focused on meeting the California Public Utilities
17 Commission ("CPUC") time line requirements, the discussions themselves are intended to
18 form the basis for national agreements. These collaborative discussions, which I believe all
19 parties regard as very productive, included participants from Covad, Rhythms, Northpoint,
20 AT&T, New Edge and others. As a result of these discussions, and conceptual agreements
21 reached on a number of issues, GTE is submitting Exhibit No. JJB-2 with the Company's
22 proposed terms and conditions for providing line-sharing to CLECs in Washington in the

1 form of a line-sharing amendment to an Interconnection Resale and Unbundling
2 Assessment¹.

3
4 **Q. PLEASE DESCRIBE THESE COLLABORATIVE DISCUSSIONS.**

5 A. Actually, GTE's collaborative discussions with CLECs on line-sharing began well before
6 formal negotiations. In January 2000, GTE began working with the CLEC community on
7 a collaborative effort to define the general terms and technical parameters of a line-sharing
8 proposal. This process began at the request of Covad, and quickly grew to include up to 13
9 CLECs. Since January 2000, weekly conference calls have been held among the technical
10 and operational experts in each company. These discussions led to a workshop held on
11 February 22, 2000 in Dallas, Texas to define the operational parameters of a planned line-
12 sharing trial.

13
14 That trial is presently underway in five GTE California central offices: West Los Angeles,
15 Westwood, Del Amo, Del Rey, and Redondo. Although all offices are in California, the trial
16 is intended to provide information that will prove useful on a nationwide basis. Covad,
17 Rhythms Links and Northpoint are participating in the trial and providing high frequency
18 xDSL service via line-sharing to end users who also receive analog voice service from GTE.

19 The trial is intended to evaluate the processes, activities and timeframes involved in placing
20 an order, provisioning and testing service, operating the splitter, reporting and repairing

¹ The proposed terms and conditions do not include line-sharing rates. Line-sharing rates are discussed in the testimony of GTE witness Mr. Robert Tanimura.

1 trouble, disconnecting service, and billing. At the conclusion of the trial, all participants will
2 evaluate the results.

3
4 **Q. WHEN DID FORMAL LINE-SHARING NEGOTIATIONS BEGIN BETWEEN GTE**
5 **AND THE CLECS?**

6 A. Concurrent with development and implementation of the trial, GTE commenced formal
7 negotiations with much the same group of CLECs. The parties met in San Francisco on
8 March 9, 10 and 20, 2000, and again in Dallas on April 17 and 18, 2000 for the purpose of
9 reaching agreement on issues relating to line-sharing. Additionally, in order to address an
10 issue that arose during the first round of negotiations, on March 16, GTE, Covad, Rhythms
11 and Northpoint also participated in a simulation of GTE's 4-TEL testing equipment in GTE's
12 Del Rey central office.

13
14 **Q. PLEASE PROVIDE A SPECIFIC EXAMPLE OF THE PROGRESS THAT HAS**
15 **BEEN MADE IN NEGOTIATIONS.**

16 A. As I mentioned earlier in my testimony, one of the key considerations regarding the
17 implementation of line-sharing is the ownership and location of the splitter. It is GTE's
18 preference to install and maintain the splitters in a GTE area of the central office to enable
19 efficient and effective use of the local loop by both service providers. However, all parties
20 quickly recognized that GTE's capacity to deploy infrastructure in over 300 offices
21 nationwide could be a limiting factor to the CLECs' ability to quickly enter these markets.

1 As a result, GTE and the CLECs reached a compromise. GTE identified central offices
2 across the nation where collocation activity indicates a need for line-sharing. This office
3 schedule was compiled, reviewed and prioritized with CLEC input on a state by state basis.
4 GTE has committed to having 50% of the CLEC selected Washington offices configured
5 with GTE owned splitters by June 6, 2000, subject of course to unforeseen delays or
6 circumstances beyond GTE's control. The remaining 50% of the offices identified on the
7 central office list will be configured by June 30, 2000. A list of these wire centers is attached
8 as Exhibit No. JJB-3. This configuration will be available for a limited time, until CLECs
9 are able to acquire their own splitters and place them either virtual or physical collocation
10 arrangements.

11
12 **Q. DO YOU BELIEVE THAT GTE'S LINE-SHARING PROPOSAL NOTED IN**
13 **EXHIBIT JJB-2 MEETS THE REQUIREMENTS OF THE FCC LINE-SHARING**
14 **ORDER?**

15 A. Yes. It adequately addresses all of the key considerations that I described earlier in my
16 testimony, and ensures the efficient deployment of line-sharing by June 6, 2000, by staying
17 within the parameters of the FCC's order in CC Docket 98-147, released December 9, 1999.

18
19 **IV. NETWORK DEPLOYMENT REQUIREMENTS AND INFORMATION**

20
21 **Q. HOW HAS GTE APPROACHED NETWORK PLANNING AND**
22 **INFRASTRUCTURE INSTALLATION FOR THE INTRODUCTION OF LINE-**
23 **SHARING?**

1 A. As I mentioned earlier in my testimony, GTE has undertaken a collaborative approach to
2 planning for the installation of line-sharing infrastructure. GTE has identified central offices
3 across the nation where collocation activity indicates a need for line-sharing. The
4 Washington central offices are listed in Exhibit JJB-3. Next, GTE turned to the CLEC
5 community for forecasts, and assistance in prioritizing offices into a deployment schedule.
6

7 **Q. ARE THERE PARTICULAR INSTANCES WHERE IT IS IMPORTANT FOR THE**
8 **CLECS TO PROVIDE GTE WITH CERTAIN FORECASTS?**

9 A. Yes. In cases where the CLECs offer promotions designed to stimulate their sales relative
10 to DSL services, GTE requires that notification and a forecast be provided prior to the
11 promotions. This requirement will enable GTE to ensure the proper network infrastructure
12 is in place to handle the increased demand. In situations where no previous demand for GTE
13 provided splitters has been communicated, GTE should be permitted 90 days to engineer the
14 placement of equipment, order materials and install bays, cable racks and associated cabling
15 necessary for line-sharing.
16

17 **V. SPLITTER AND NETWORK CONFIGURATION OPTIONS**

18
19 **Q. PLEASE DESCRIBE GTE'S PROPOSED LINE-SHARING SPLITTER AND**
20 **NETWORK CONFIGURATION OPTIONS.**

21 A. As I discussed earlier in my testimony, GTE is proposing to provide CLECs with line-sharing
22 using three basic network configurations. By providing these three configuration options,
23 CLECs will have complete flexibility to reach all markets regardless of whether GTE has

1 deployed necessary facilities for line-sharing. This flexibility permits the CLEC to select the
2 markets they wish to compete in and the speed with which they enter them.

3
4 **Q. WHAT IS THE FIRST NETWORK CONFIGURATION?**

5 A. In GTE's preferred network configuration, the CLEC owns the splitter and places it in a
6 virtual collocation-like arrangement. In this arrangement the CLEC would own the splitter
7 and lease it to GTE for \$1. GTE will install the splitter in a GTE-managed area of the central
8 office, and operate and maintain the equipment on behalf of the CLEC. The splitters are
9 dedicated to the CLEC and no other carrier will be able to use them. The voice path is cross-
10 connected from the GTE MDF to the CLEC collocated splitters through tie cables provided
11 by the CLEC. Likewise the combined voice and data path will be returned over a separate
12 CLEC-provided tie cable. This arrangement is depicted in Exhibit No. JJB-4 to my
13 testimony. GTE proposes that the rates, terms and conditions for this type of configuration
14 be negotiated on a case-by-case basis. GTE has a virtual collocation tariff on file with the
15 FCC (Section 17, GTOC FCC Tariff No. 1), which addresses some of the terms and
16 conditions necessary for this type of arrangement.

17
18 **Q. WHAT IS THE SECOND NETWORK CONFIGURATION?**

19 A. As an alternative to the virtual collocation-like arrangement described above, the CLEC can
20 own and install the splitter in its physical collocation area. The voice service path will be
21 connected from the GTE switch, to the MDF, and then cross-connected to the splitter located
22 in the CLEC collocation area. There, it is combined with the data service path, and the
23 combined voice/data service path leaves the splitter in the CLEC collocation area and is

1 cross-connected back to the MDF, where it is then wired to the local loop. Two connections
2 between the MDF and collocation area are required in this case. Both are provided under
3 existing collocation terms and conditions. This arrangement is shown in Exhibit No. JJB-5
4 to this testimony.

5
6 **Q. WHAT IS THE THIRD NETWORK CONFIGURATION?**

7 A. The third configuration, in which GTE owns the splitter, is shown in Exhibit No. JJB-6 to
8 my testimony. From June 6, 2000 through August 31, 2000 GTE will own, and install in
9 selected central offices, a bay containing splitters configured to combine and separate the
10 high and low frequency portions of the end users' service. The voice service path will be
11 connected from the GTE switch to the MDF, and then cross-connected to a splitter mounted
12 in the splitter bay. Likewise, the CLEC-provided DSL service will be cabled to the GTE
13 MDF and cross-connected to the same splitter in the splitter bay. The combined voice/data
14 service path leaves the splitter bay and is cross-connected back to the MDF where it is then
15 wired to the local loop. GTE is making this arrangement available to facilitate the initial
16 offering of line-sharing as a way to enable CLEC access to the high frequency band of the
17 local loop immediately on June 6, 2000. The period between June 6 and August 31, 2000
18 should be used by the CLECs to place splitters in GTE offices using one of the first two
19 options

1 **Q. WERE OTHER POSSIBLE NETWORK CONFIGURATIONS DISCUSSED AND**
2 **CONSIDERED?**

3 A. Yes. Another proposal required that splitters be placed in a common area of the central
4 office. In this arrangement both GTE and the CLECs would have access to the splitters for
5 testing purposes. In particular, the CLECs are seeking to have access to the cable pair side
6 of the splitter, so they can test the physical loop.

7
8 **Q. WHY HAS GTE ELECTED TO EXCLUDE THIS ALTERNATIVE FROM ITS**
9 **PROPOSAL?**

10 A. This alternative was excluded for several reasons. First, current options for collocation
11 include cageless collocation, which allows the CLEC to place its own splitters in an open
12 arrangement and accessible bay. As I described earlier, GTE is proposing a line-sharing
13 option to enable CLECs to own splitters and place them in their collocation areas. This
14 configuration makes the common splitter unnecessary.

15
16 Second, GTE is proposing to provide CLECs with access to its loop testing system known
17 as 4-TEL through GTE's internet-based GUI wholesale internet service engine ("WISE").

18 This system will provide CLECs with the capability to test the loop path from GTE's
19 switch, through the splitter, to the end user premise. Test access by 4-TEL eliminates the
20 possibility that testing of the physical loop will interfere with voice services. Before 4-TEL
21 performs any such tests, it monitors the loop to ensure that it is not in use. 4-TEL makes test
22 access at the splitter unnecessary when GTE is the owner of the splitter. In fact, in response
23 to this issue coming up during early negotiations, GTE and several CLECs conducted a test

1 of GTE's 4-TEL test equipment at one of the central offices involved in the trial. It is my
2 understanding that all parties to the demonstration indicated their satisfaction that the 4-TEL
3 equipment will provide the necessary test data in a shared line scenario.

4
5 Third, GTE does not configure central offices with open areas providing community access
6 to equipment. To initiate floor space allocations to support this approach would create an
7 inefficient use of GTE's limited central office space. For all of these reasons, GTE believes
8 this configuration is unnecessary.

9
10 **VI. PRICING AND COSTING ISSUES**

11
12 **Q. WHAT PRICING STRUCTURE HAS GTE PROPOSED FOR LINE-SHARING?**

13 A. As explained in the testimony of GTE witness Robert Tanimura, GTE is proposing to recover
14 costs associated with line-sharing through both recurring and non-recurring rates.
15 Specifically, service order processing, installation of jumpers and initial testing, and line
16 conditioning (also referred to as de-conditioning by some carriers) costs will be recovered
17 through non-recurring charges. Capital costs associated with the splitters, splitter bays, and
18 cabling between the bays and the GTE MDF will be recovered through a monthly recurring
19 charge. Costs associated with all tie-cables between the GTE MDF and CLEC collocation
20 area are recovered through collocation cross-connect charges and cable charges, which are
21 already established within GTE's collocation service offering.

1 **Q. WHY HAS GTE PROPOSED THESE CHARGES?**

2 A. In the FCC's Order, Deployment of Wireless Services offering Advance Telecommunications
3 Capability, CC Docket No's. 98-147 and 96-98, FCC 99-355, the FCC views access to the
4 high frequency loop spectrum as incremental to the existing basic local voice services
5 provided over the same loop. The charges GTE has proposed will recover operating and
6 capital costs associated with providing high frequency access to the loop.

7
8 As shown in Exhibits JJB-4, JJB-5, and JJB-6 the components of each network configuration
9 that are associated with line-sharing are identified as bold lines (per diagram key). These
10 cost components are recovered through line-sharing rates or existing collocation charges.

11

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

13 A. Yes.