

**ORIGINAL**

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Investigation into Pricing of )  
Unbundled Network Elements )  
\_\_\_\_\_ )

Docket No. 990649-TP

**REBUTTAL TESTIMONY OF**

**DAVID G. TUCEK**

**ON BEHALF OF**

**GTE FLORIDA INCORPORATED**

**SEPTEMBER 10, 1999**

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**GTE FLORIDA INCORPORATED**

**DOCKET NO. 990649-TP**

**REBUTTAL TESTIMONY OF DAVID G. TUCEK**

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

A. My name is David G. Tucek. My business address is 1000 GTE Drive, Wentzville, Missouri.

**Q. ARE YOU THE SAME DAVID G. TUCEK WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS PROCEEDING?**

A. Yes, I am.

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

A. I respond to certain issues raised by BellSouth witness Caldwell and AT&T and MCI witness Ankum concerning the requirements for the cost studies to be submitted in the next phase of this docket. Specifically, I address Ms. Caldwell's proposal to use SCIS to estimate the switch-related costs of UNEs, and rebut Dr. Ankum's (1) recommendation to use the local exchange routing guide (LERG) to identify wire centers; (2) claim that T-1 technology is appropriate for use in a forward-looking cost model; and (3) recommendation to base the prices of network facilities and equipment on public sources of information. My rebuttal testimony also addresses the requirements for cost study support and documentation.

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**Q. AT PAGE 11 OF HER DIRECT TESTIMONY, MS. CALDWELL STATES THAT BELLSOUTH INTENDS TO UTILIZE SCIS AS A BASIS FOR MODELED SWITCHING COSTS. DOES GTE AGREE WITH THE USE OF SCIS?**

A. Yes, it does. I am aware of only three models which are suitable for the development of the forward-looking costs of switching: (1) SCIS, developed by Bellcore; (2) CostMod, developed by GTE for the GTD-5; and (3) SCM, a proprietary model developed by US West. All three of these models correctly view the switch as, in Ms. Caldwell's words, "a multi-faceted entity that performs a number of functions". Other approaches to modeling switch costs that I have seen are flawed because they rely only on lines as the primary cost driver. As a consequence, such models attempt to divide the cost of the switch between local and toll via an arbitrary allocation factor and assume that the processor costs of the features are captured in the resulting line-related, or port, costs. The correct approach is to size the switch based on engineering rules and to partition the required investment between the various switch functions in accordance with the amount of resources each function requires.

**Q. AT PAGE 35 OF HIS DIRECT TESTIMONY, DR. ANKUM STATES THAT THE LOCAL EXCHANGE ROUTING GUIDE (LERG) SHOULD BE USED TO IDENTIFY THE LOCATION OF THE INCUMBENT'S EXISTING SWITCH LOCATIONS. SHOULD THE COMMISSION**

1           **RELY EXCLUSIVELY ON THIS SOURCE OF INFORMATION?**

2           A.    No, it should not. While the LERG is a valuable source of information  
3                   concerning host/remote relationships and the classification of remotes  
4                   as either pair-gain or switching devices, the locations in the LERG are  
5                   entered as vertical and horizontal coordinates that do not always  
6                   translate into the correct latitude and longitude coordinates. GTE  
7                   recommends that the Commission not rely on a single source for such  
8                   information. In addition to the LERG, information sources such as the  
9                   National Exchange Carriers Association wire center database, the  
10                  Central Location On Line Entry System maintained by Telecordia, and  
11                  company records should be used to insure that the modeled switch  
12                  locations and relationships are correct.

13  
14          **Q.    AT PAGE 35 OF HIS DIRECT TESTIMONY, DR. ANKUM**  
15                  **RECOMMENDS THAT COARSE-GAUGE CABLE AND LOAD**  
16                  **COILS BE REPLACED WITH T-1 TECHNOLOGY IN ORDER NOT**  
17                  **TO IMPEDE THE PROVISION OF ADVANCED SERVICES. IS THIS**  
18                  **POSITION CONSISTENT WITH THOSE ESPOUSED BY AT&T IN**  
19                  **OTHER FORUMS?**

20          A.    No, it is not. For example in California Docket R.93-04-003/l.93-04-  
21                  002, AT&T Witness John Lynott testified that a loop consisting of  
22                  copper-based T-1 is not a forward-looking technology. (Deposition of  
23                  John Lynott , Calif. P.U.C., Nov. 19, 1997, at 437). More recently, in  
24                  their June 15, 1999, comments in FCC Docket No. 98-147, AT&T  
25                  stated (at page 15):

1 "Because of the ongoing widespread deployment of ADSL  
2 modems, T1 deployment must be managed to promote more  
3 efficient utilization of copper cable plant without causing undue  
4 burden to carriers or significant service disruption to  
5 customers. AT&T therefore recommends that existing  
6 repeater-based T1s be:

- 7
- 8 - grandfathered, allowing for no further deployment within  
9 the loop plant.
  - 10 - moved to separate binder groups. The Commission has  
11 noted that incumbent LECs currently assign T1s to  
12 segregated binder groups. To the extent a T1 is not in  
13 a separate binder group, it should be moved to one  
14 during any repair, maintenance or grooming activity to  
15 the T1.
  - 16 - migrated to newer technology (e.g., replaced with HDSL  
17 or other similar technology) over a specified time frame  
18 (e.g. three years) if the preceding steps prove  
19 inadequate to accommodate the growing demand for  
20 advanced services."

21

22 **Q. HAS THE FCC TAKEN A POSITION ON THE USE OF T-1**  
23 **TECHNOLOGY IN THE COST MODEL DEVELOPED BY ITS STAFF**  
24 **FOR USE IN THE HIGH-COST SUPPORT DOCKET?**

25 **A. Yes. In its Further Notice of Proposed Rulemaking, the FCC**

1 tentatively concluded that it should not use the T-1 option in the  
2 synthesis model, in part because it "may not be a forward looking  
3 technology." (FCC Docket Nos. 96-45 & 97-160, FNPRM, at para. 61  
4 (May 27, 1999).) Consistent with this position, the proposed input  
5 values for the synthesis model on the FCC's Web site turn off the T-1  
6 technology option.

7  
8 **Q. IS THIS TREATMENT OF THE T-1 INPUT CONSISTENT WITH THE**  
9 **FCC'S RECOMMENDATION IN THE ADVANCED SERVICES**  
10 **PROCEEDING?**

11 A. Yes, it is consistent. In the Advanced Services Docket (No. 98-147),  
12 the FCC stated "We strongly believe that industry should discontinue  
13 the deployment of well recognized disturbers (a disturber is a service  
14 that significantly degrades another service) such as AMI T-1. We  
15 further believe carriers should, to the fullest extent possible, replace  
16 AMI T-1 with new and less interfering technologies." (CC Docket 98-  
17 147, First Report and Order and Further Notice of Proposed  
18 Rulemaking, at para. 74 (March 31, 1999).)

19  
20 It is clear from the foregoing that AMI T-1 impedes the provisioning of  
21 advanced services and is not a forward-looking technology. Any  
22 model that relies on this technology to provision extremely long loops  
23 (in excess of 12 kilofeet) should not be accepted by this Commission.

24  
25 **Q. SETTING ASIDE THE ISSUE OF T-1 AND ITS IMPACT ON**

1           **ADVANCED SERVICES, IS THERE ANY OTHER REASON WHY**  
2           **DR. ANKUM'S RECOMMENDED USE OF T-1 SHOULD BE**  
3           **REJECTED?**

4           A.    Yes.  Dr. Ankum's recommendation is essentially a proposal to  
5           provision extremely long loops via an out-moded technology over a  
6           copper transmission medium.  What the proposal overlooks is the cost  
7           of expanding capacity along this transmission path to accommodate  
8           increases in telecommunications demand.  Once the capacity of the  
9           T-1 facility is reached, the only way to accommodate any increase in  
10          demand would be to deploy additional copper T-1 facilities.  While this  
11          may be feasible in the real network if the additional copper facilities  
12          already exist, it is not feasible in the modeled network unless the  
13          model deploys more copper than is initially required.  If the  
14          transmission medium was instead a fiber optic cable, increases in the  
15          demand for telecommunications services could be accommodated  
16          simply by changing the electronic equipment on each end of the cable  
17          -- a more cost-effective and forward-looking approach.  Indeed, AT&T  
18          has recognized the desirability of fiber over copper in testimony filed  
19          in North Carolina.  AT&T witness Donald J. Wood stated "There are  
20          existing DLC systems that utilize copper wire pairs, but forward-  
21          looking DLC architectures assume the use of fiber optics transmission  
22          facilities." (Supplemental Testimony of Donald J. Wood, AT&T  
23          Communications of the Southern States, Inc. and MCI  
24          Telecommunications, Inc., N.C. P.U.C., Docket No. P100, SUB 133d,  
25          Feb. 16, 1998, Footnote 1).

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**Q. AT PAGE 37 OF HIS DIRECT TESTIMONY, DR. ANKUM RECOMMENDS THAT THE MODEL SHOULD IDENTIFY PUBLIC SOURCES OF INFORMATION REGARDING THE PRICES OF NETWORK FACILITIES AND EQUIPMENT. DO YOU AGREE WITH THIS RECOMMENDATION?**

A. No, I do not. As I explained in my direct testimony the cost studies filed in Phase II of this proceeding must produce estimates of the forward-looking, economic costs each company expects to incur in provisioning UNEs and telecommunications services out of its own network. If the input prices for material and labor do not reflect what each company actually pays, then the resulting cost estimates will depart even further from company-specific costs. There are no public sources of information regarding what individual companies pay for material and labor. Rather than seeking such sources, the Commission should rely on the companies' own contracts and on the information systems they use in the normal cost of business to manage their planning and purchase-order processes.

**Q. SEVERAL PARTIES HAVE PROPOSED REQUIREMENTS FOR COST STUDY SUPPORT AND DOCUMENTATION. WHAT TYPE OF SUPPORT DOES GTE INCLUDE IN ITS COST FILING PACKAGE?**

A. GTE files its entire cost model and cost study on a CD-ROM that contains all of the executable programs and input files needed to

1 reproduce the Company's filing or to conduct sensitivity analyses. In  
2 addition, the actual code underlying the cost model and a narrative  
3 description documenting the model methodology are included on the  
4 CD-ROM. In hardcopy form, consisting of approximately 15 binders,  
5 GTE's filing includes summary statewide reports showing the per-unit  
6 TELRIC and underlying investments for each UNE. (The same  
7 information is provided on the CD-ROM by individual wire center.)  
8 Also included in the binders is a copy of the model documentation and  
9 user guide, as well as work papers showing the development and  
10 sources for the material and placement inputs. Some of this  
11 information, such as the contracts for switching or for placement of  
12 outside plant facilities, is highly confidential and requires execution of  
13 a satisfactory proprietary agreement that protects the interests of both  
14 GTE and the vendors involved. Finally, the binders contain  
15 miscellaneous costs studies performed outside of GTE's main model,  
16 and supporting documents related to engineering practices, labor and  
17 material loadings, and the SCIS and CostMod runs.

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19 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

20 A. Yes, it does.

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