DOCKET FILE COPY ORIGINAL

AT&T

Mark A. Keffer
Chief Regulatory Counsel
Atlantic Region

Room 3-D
3033 Chain Bridge Road
Oakton, VA 22185
703 691-6046
FAX 703 691-6093
Email Fax No. 202 263-2692
mkeffer@att.com

RECEIVED

JAN 17 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 17, 2002

By Hand Delivery

Magalie R. Salas, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: **CC Docket Nos. 00-218 & 00-251**
In the Matter of Petition of AT&T Communications of Virginia, Inc., TCG Virginia, Inc., ACC National Telecom Corp., MediaOne of Virginia and MediaOne Telecommunications of Virginia, Inc. for Arbitration of an Interconnection Agreement With Verizon Virginia, Inc. Pursuant to Section 252(e)(5) of the Telecommunications Act of 1996

In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Expedited Preemption of the Jurisdiction of the CC Docket No. 00-218 Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration

Dear Ms. Salas:

Enclosed please find an original and three (3) copies of the public version of the Joint Initial Post Hearing Brief of WorldCom, Inc. and AT&T On Switch Cost Issues.

No. of Copies rec'd 0+3
List ABCDE

Recycled Paper

Thank you for your consideration in this matter.

Respectfully submitted,

Mark Keffer

cc: Service List

Enclosures

RECEIVED
JAN 17 2002
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration	)	CC Docket No. 00-218
In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes With Verizon Virginia Inc.	)	CC Docket No. 00-251

JOINT INITIAL POST-HEARING BRIEF OF WORLDCOM, INC. AND AT&T ON SWITCH COST ISSUES

Lisa B. Smith
Allen Freifeld
Carl Giesy
WorldCom, Inc.
1133 19th Street, N.W.
Washington, D.C. 20036

Mark D. Schneider
Marc A. Goldman
Jenner & Block LLC
601 Thirteenth Street, N.W.
Washington, D.C. 20005

Counsel for WorldCom, Inc.

Mark A. Keffer
Stephanie Baldanzi
AT&T
3033 Chain Bridge Road
Oakton, Virginia 22185

Matthew W. Nayden
Stuart M. Kreindler
Ober Kaler Grimes & Shriver
120 E. Baltimore St.
Baltimore, MD 21202

Cynthia A. Coe
5406 Kirkwood Drive
Bethesda, MD 20816

David M. Levy
Alan C. Geolot
R. Merinda Wilson
Sidley Austin Brown & Wood
1501 K Street N.W.
Washington, D.C. 20005

Counsel for AT&T

January 17, 2002

TABLE OF CONTENTS

Page

I. The Switching Cost Studies Submitted in this Proceeding 3

A. AT&T/WorldCom Synthesis Model 3

B. Verizon SCIS Model 4

II. TELRIC Requires Use of the New Switch Discount and Rejection of Verizon's Proposed Growth-only Discount 5

A. The Synthesis Model Produces Appropriate Switching Costs in Accordance with TELRIC. 7

B. Verizon's Switching Cost Study Fails to Comply with TELRIC. 11

III. Verizon's Switching Costs Are Largely Non-Traffic-Sensitive. 15

IV. Verizon's Other Criticisms of the Synthesis Model Are Without Merit. 19

A. The Synthesis Model Handles Peak Call Volumes in the Same Manner as Verizon. 19

B. The Synthesis Model Develops the Appropriate Switch UNE Costs 20

C. The Synthesis Model Provides Adequate MDF and Power Investments Factor 20

V. Verizon's Switch Cost Study Overstates and Misallocates Costs. 21

A. Verizon's TR-008 "Work-Around" in its Revised Switch Cost Study Overstates Costs 21

B. Verizon Misallocates Combination Local/Tandem Switch Costs 22

C. Verizon's Right to Use ("RTU") Fees Include One-Time Costs and Are Overstated. 22

D. The Switching Engineering, Furnished and Installed ("EF&I") Factor Is Overstated. 23

E. "Getting Started" Costs and RTU Costs Should Either Be Excluded from Reciprocal Compensation Rates, or if Allocated to the Minute-of-Use Costs, Included on the Same Basis as in Switch UNE Rates 24

F. Verizon's Features Costs Are Unsubstantiated 25

VI. WorldCom Recommends that the Commission Adopt a Flat Rated Switch Rate Design that Recovers All Costs Through a Flat Rated Port Charge. 25

VII. AT&T Recommends That The Commission Retain the Existing "Port and Per Minute" Rate Design for Unbundled Switching But Has No Objection to WCOM's Flat Rate Switching Rate Being Made Available as an Option. 27

Conclusion 29

On switching issues, as Yogi Berra said, "it's déjà vu all over again." As was the case with other cost modeling issues, Verizon again boldly declares that its switching cost study complies with TELRIC. But in Verizon's world, its cost studies *always* comply with TELRIC because Verizon's protean view of TELRIC always stretches to cover any and all manner of its embedded or short-run cost studies. TELRIC principles require that a study be long run and forward looking. Verizon's switching cost study is neither, relying as it did on a snapshot of growth switch purchases from a single year and on outmoded TR-008 technology. Verizon's last-minute submission of a new switch cost study (and subsequent amendment) – triggered by Verizon's realization that Telcordia's SCIS model regarded TR-008 as outmoded technology and "dropped" one million lines from Verizon's original study – is no more TELRIC-compliant than its original study. Even putting aside the revised study's failure to comply with TELRIC, the many other problems with the Verizon cost study -- the misallocation of non-traffic-sensitive costs to the minute of use, the overstated EF&I factors, the inflated right-to-use fees, the unsubstantiated feature costs, and the inappropriate methodology for computing reciprocal compensation – result in significantly overstated switch costs and skewed UNE switch rates.

By contrast, AT&T/WorldCom's Synthesis Model clearly complies with TELRIC. Verizon vigorously challenges the application of the TELRIC standard (an issue not before this Commission in this state arbitration) and argues for a smaller switch discount, but does not seriously dispute that the Synthesis Model switching cost methodology is based on long-run and forward-looking principles. Verizon's claims that switching costs are largely traffic sensitive, but AT&T/WorldCom demonstrated that traffic-sensitive costs are roughly 15-20% of total switching costs, and Verizon conceded during the hearing that switches are port limited and do not exhaust as a result of call capacity. Verizon also alleges that the Synthesis Model does not

model sufficient investment to handle peak day traffic, but the Synthesis Model uses substantially the same methodology as Verizon to determine peak-day and peak-hour traffic.

Verizon's cost study so far departs from TELRIC principles that the rates it generates are quite literally off the charts. Verizon's recommended switching rates in this proceeding far exceed what has been adopted by any other state in the region, more than double rates set in Illinois, Michigan, Texas, Georgia, Pennsylvania, Florida, and the recently recommended ALJ decision in New York, and are substantially higher than those in effect where Section 271 applications have been approved. While the rates in those states themselves remain too high -- no state has yet strictly adhered to the Commission's TELRIC rules as the Commission certainly will in this case -- at least a modicum of residential competition has begun to develop in some of those jurisdictions. In Virginia, however, no competition could ever develop under Verizon's recommended rates, a point confirmed in the Attachment to this brief, which shows that any CLEC trying to enter Virginia at Verizon's proposed UNE rates would, on average, lose more than $10.00 per customer every month.

In short, although both sides claim their switching studies are faithful to TELRIC, only the Synthesis Model is, and it supports the separate switch rate design proposals sponsored by AT&T and WorldCom and set forth at the end of this brief. This Commission should adopt the Synthesis Model's switch cost methodology in determining switching costs and adopt the switching rates set forth in the AT&T/WorldCom Response to the Staff 12/01/01 Record Request.

I. THE SWITCHING COST STUDIES SUBMITTED IN THIS PROCEEDING

A. AT&T/WorldCom Synthesis Model

The switching cost models sponsored by AT&T/WorldCom and Verizon take vastly different approaches in developing switching costs. The Synthesis Model sponsored by AT&T/WorldCom determines switching investment based on a comprehensive FCC study of 1989-96 switch prices taken from large ILECs' depreciation data and switch purchase data from the Rural Utilities Service. The data set included all switches that were new or less than three years old. The Commission performed a regression analysis on these data that included variables designed to take into account changes in digital switches, including changes in price levels, features, and digital switch technology. The regression analysis produced a fixed cost for a host switch and a remote switch, and a per line cost, that reflects the forward-looking cost to Verizon for switch purchases. AT&T/WCOM Ex. 4 (Pitts Dir.) at 3-4; AT&T/WCOM Ex. 16 (Pitts Surreb.) at 3-4; Tr. 5141-43, 5149-53 (Murray, Pitts).[1] The switching cost information is then combined with Virginia-specific line count and switch usage information from ARMIS and deployment information regarding Verizon Virginia's mix of host and remote switches from the LERG to calculate Verizon's switch specific costs. AT&T/WCOM Ex. 16 (Pitts Surreb.) at 5-6. The final step (in AT&T's proposal) is the use of an adjustable input regarding the percentage of traffic sensitive costs that allocates switch costs to the fixed port charge and the minute-of-use cost elements. *Id.* at 6. The switch costs produced by the Synthesis Model are reported in two ways: first, non-traffic-sensitive costs are reported on a per-switch-port basis with the traffic-

[1] These costs are appropriate for use in this Virginia proceeding because Verizon and other large incumbent telephone companies purchase their switches on a regionwide basis and pay comparable prices for switching equipment. AT&T/WCOM Ex.4 (Pitts Dir.) at 4.

sensitive costs reported on an average minute-of-use basis; and second, total costs are reported on a per-switch-port basis. AT&T/WCOM Ex. 8 (Murray Dir.) at 16.

B. Verizon SCIS Model

Verizon used Telcordia's SCIS model to develop switching investment costs. The SCIS model maintains list price information from switch vendors, Tr. 5285-86 (Garfield), and Verizon applied a discount based on its actual year 2000 purchases to develop switching costs. It then added multiple loadings for engineering, features, and installation ("EF&I"), annual cost factors, and expenses to develop the purported TELRIC cost. Finally, various overhead loadings were added to calculate proposed prices. ATT/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 97-98.

Shortly before the commencement of the recurring cost hearings in this case, Verizon realized that its switching cost study had failed to include one million TR-008 lines, and it submitted a revised switch cost study that sought to address that problem. Verizon Ex. 125 (Matt Supp. Surreb.) at 2. The problem occurred because in updating its SCIS model Telcordia had decided that TR-008 was not a forward-looking technology for use with Lucent's SM2000 switch module, and instead modeled only GR-303 technology with the Lucent switch.[2] AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 6-7. As a result, when Verizon chose the Lucent SM2000 switch module as its forward-looking technology to model switching costs, the SCIS model did not recognize TR-008 and thus "dropped" the one million TR-008 lines from Verizon's study, an error that Verizon did not discover until the surrebuttal round of testimony. Tr. 2859 (Matt). Verizon's revised switching cost study included an out-of-model work-around

---

[2] Telcordia's determination that TR-008 does not represent forward-looking technology in connection with the Lucent SM2000 fatally undercuts Verizon's heavy reliance on TR-008 in its loop study and is simply another reflection of Verizon's devotion to its embedded network.

for the dropped TR-008 lines that overstated costs by including network investment needed to model both the GR-303 technology and the TR-008 IDLC. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 6-10 (9% overstatement of total switch investment); AT&T Ex. 142P (Verizon study showing **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]** overstatement related to packet switching equipment). Another problem involving omitted and misclassified tandem switches forced Verizon to file a *second* supplemental switching cost study on November 2, 2001. Verizon Ex. 161 (Matt Second Supp. Surreb.). This restatement changed several of Verizon's end offices to combination local/tandem switches and resulted in still further overstatement and misallocation of costs. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 10-14.[3]

II. TELRIC REQUIRES USE OF THE NEW SWITCH DISCOUNT AND REJECTION OF VERIZON'S PROPOSED GROWTH-ONLY DISCOUNT.

Given the cost of the switch and the significant discounts offered by switch vendors to purchases of switching equipment, the switch discount is the most important issue in determining appropriate switch cost investments. Tr. 5129 (Pitts).[4] Switch vendors give larger discounts for new or replacement switches than for equipment for growth or upgrades to existing switching equipment, AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 97-99, and as a result the cost models must use the appropriate discount in determining switching costs in accordance with TELRIC.

---

3 Even after two supplemental submissions, Verizon's switching cost study continued to drop wire centers from its study. Tr. 5092-97, 5331-34; AT&T Ex. 144, 145, and Verizon Ex. 173 (data request responses showing dropped wire centers and remote offices by Verizon).

4 This is especially so if the Commission relies upon Verizon's SCIS model, which calculates costs based on retail list prices that everyone acknowledges are always subject to a discount.

In determining switching costs, TELRIC measures the costs of an efficient, low-cost supplier.[5] As the FCC has stated, the rates for network elements should be "based on costs that assume that wire centers will be in place at the incumbent LEC's current wire center locations, but . . . the *reconstructed* local network will employ the most efficient technology for reasonably foreseeable capacity requirements."[6] This standard replicates the prices that would exist in a competitive market, which are forward-looking, long-run incremental costs. AT&T/WCOM Ex. 11 (Murray Reb.) at 12. The touchstone of forward-looking pricing is not what Verizon has or has not done in its existing network, but what an efficient provider would do *if unconstrained by previous investments and decisions*. Thus, "the current state of Bell's network is irrelevant for purpose of a long-run cost analysis." *Bell Atlantic-Delaware, Inc. v. McMahon*, 80 F.Supp.2d 218, 238 (D.Del. 2000).

As the acronym implies, TELRIC is a measure of *long-run* costs. AT&T/WCOM Ex. 11 (Murray Reb.) at 12-18; AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 101-03. The FCC has held that, for purposes of TELRIC, the "long run is a period so long that all of the firm's present contracts will have run out, its present plant and equipment will have been worn out or rendered obsolete and will therefore need replacement."[7] In the long run, all switches will need to be replaced. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 98-100. The Court in *McMahon* explained that the long-run perspective means that Verizon would replace all of its switches and use the replacement discount in determining switch costs:

---

5 A more detailed discussion of TELRIC principles appears in the AT&T/WorldCom Joint Initial Brief on Pricing Issues at pages 11-26.

6 *Local Competition Order*, ¶ 685 (emphasis added).

7 *Local Competition Order*, ¶ 677 n.1682 (quoting William Baumol, *Economic Theory and Operations Analysis* (4th ed. 1977)) at 290).

> In the long run (a period of time that varies according to the technology at issue), an efficient and rational competitor would replace all of its existing switches with the most current technology and receive the bulk-rate discounts. Viewed in this light, Bell's proposed switch costs, which it premised upon the small add-on discounts for which it will qualify 'in the coming years," looks only to the short-run.

McMahon, 80 F.Supp. 2d at 238-239.

In other venues, Verizon has conceded that TELRIC assumes new switches will be purchased at new switch discounts in modeling switching costs. As stated in the *McMahon* case, Verizon witness William Taylor testified before the Delaware Public Service Commission that the "long-run" requirement of the TELRIC standard "says rip every switch out. All of them. . . . Every switch in the network, rip them out. Leave the . . . wire center locations where they are. And build the network that you would build today to serve the demand."[8] *See* AT&T/WCOM Ex. 11P (Murray Reb.) at 7-10. These TELRIC principles make clear that new switches and their associated new switch discounts should be used in determining the cost that a new entrant would incur to provide service to the reasonably foreseeable demand.

A. The Synthesis Model Produces Appropriate Switching Costs in Accordance with TELRIC.

The AT&T/WorldCom Synthesis Model is consistent with these TELRIC principles. The Synthesis Model uses the switch costing methodology devised by the Commission in determining universal service fund costs.[9] The FCC study is based on switch prices between

---

8 *McMahon*, 80 F.Supp. at 238 (quoting testimony of Dr. Taylor). Similarly, Dr. Taylor testified before the Delaware PSC that the FCC's requirement of a "reconstructed local network" in its *Local Competition Order* (¶ 685), means "that all elements of the local network, including the switches, including the building that surrounds the switch . . . all of those elements get rebuilt as if the neutron bomb flattened them." AT&T/WCOM Ex. 11P (Murray Reb.) at 11.

9 As demonstrated in the AT&T/WorldCom Joint Initial Brief on Pricing Issues, this methodology can be applied directly in determining the TELRIC of unbundled network elements such as switching. *See* AT&T/WorldCom Initial Brief on Pricing Issues at 27-30, 37-40. Indeed, the

1989-96 taken from both ILEC depreciation data and smaller rural utilities switch purchases. The FCC study included any switch that was new or less than three years old at the time of the survey and thus captured new switch discounts and any growth switch additions and upgrades made during that three year period. Tr. 5142 (Pitts). The depreciation data reflects the actual prices paid for the switches and thus incorporates the switch discounts that would have been available in connection with those switch purchases. The restriction to switches that were new or less than three years old serves as a reasonable proxy for the new switch discount used by TELRIC but also captures any growth/upgrade discounts that may occur in the first three years of the switch.

The Commission's regression analysis takes into account the changes in pricing, technology, features, and usage over the period and makes the data forward-looking and appropriate for use in the Synthesis Model. AT&T/WCOM Ex. 4 (Pitts. Dir.) at 3-6; AT&T/WCOM Ex. 16 (Pitts Surreb.) at 3-4, 5-7; Tr. 5141-43, 5149-53 (Pitts, Murray). Thus, Verizon's claim that the FCC data as used in the Synthesis Model fails to take into account ISDN lines or other new equipment is demonstrably false, and in fact causes an overstatement in the Synthesis Model insofar as those costs are already included in basic port and minute-of-use costs. AT&T/WCOM Ex. 16 (Pitts Surreb.) at 3-4.

The Synthesis Model appropriately deals with the issue of growth in demand over time. As AT&T/WCOM witness Terry Murray explained, the use of the new switch (and its associated new switch discount) sized for its reasonably foreseeable demand over its economic life places an upper bound on the forward-looking economic cost of the switch. An efficient firm will

---

only change necessary to the inputs to the FCC Synthesis Model to allow the calculation of UNE switching costs is the inclusion of the ratio of traffic-sensitive costs and non-traffic sensitive costs to allow the determination of fixed port charges and separate minute-of-use charges. AT&T/WCOM Ex. 4 (Pitts Dir.) at 6-7.

choose between buying a larger switch at the new switch price or buying a smaller switch initially and then adding components to the switch at the growth price based on the net present value of the expected stream of costs associated with each option. "Growing" a switch is a rational choice if and only if that option is less expensive on an expected net present value basis than purchasing sufficient capacity up front to meet the total expected demand over the life of the switch. Thus, costs based on the new switch discount set the upper bound, on an expected net present value basis, of the costs that Verizon should incur to provision switching efficiently. AT&T/WCOM Ex. 11 (Murray Reb.) at 35 n. 46.[10]

Concern that the Synthesis Model's approach may undersize switches by not taking into account future growth and thereby understate costs is also unfounded. See Verizon Ex. 108 (Tardiff Reb.) at 50-51. First, the Synthesis Model relies on the FCC data, which address this issue by including any growth switch equipment (and associated growth discount) in the first three years of the switch. Second, this concern arises only if there is significant growth in demand throughout the life of the switch without any ability to purchase additional capacity at the net present value of the initial switch purchase price. As AT&T/WorldCom witnesses explained in their testimony, and Verizon conceded during testimony, modern digital switches almost never exhaust on processor utilization, and thus any concern with growth centers primarily on growth in circuit-switched lines. Such growth has slowed significantly in recent years due to the increase in wireless and non-circuit-switched alternatives to residential second lines previously purchased for data such as DSL, and there is no evidence that circuit-switched line growth will be significant in the future. Also reducing any such concern is the history of

---

[10] Packet switching is expected to be economically more efficient than circuit switching, and thus the current price for a narrow-band circuit switch is conservatively higher than Verizon's long-term cost of switching as it converts from circuit to packet switching. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 103.

increasing discounts for growth and upgrade switch equipment that approach new switch discounts. AT&T/WCOM Ex. 20 (Murray Surreb.) at 42-44; AT&T/WCOM Ex. 4 (Pitts Dir.) at 7-9 (switches exhaust on ports rather than processors); AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 112-16; Tr. 5449 (Verizon witness Gansert conceding that switches are designed to be port limited); Tr. 5297-99 (Murray).

Even if there is significant growth in the ultimate demand for the switch, the Synthesis Model and the discount derived from the FCC study are still the appropriate standard. If a new switch were sized to serve existing demand and future line growth were assumed to be three percent a year annually over five years, the weighting of the new switch discount would be at least 90%, and undoubtedly greater because the significant "getting started" costs of the switch should always be calculated using the higher new switch discount. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 5; Tr. 5145 (Pitts). Moreover, the growth rate in the first few years is the most significant issue because, as AT&T/WorldCom witness Terry Murray testified, in looking at growth calculations on a net present value basis, the discount rate will undoubtedly be higher than the growth rate and as a result the discounted value of any cost of capacity growth in out years will be very small. Tr. 5422-23 (Murray). Moreover, as noted above, the FCC data used in the Synthesis Model captures any growth discount occurring in the first three years of the switch.[11]

---

[11] Even with line growth, the fixed cost associated with the switch capacity ($486,000 for a standalone switch) likely will not increase, but instead any such increase will affect the total line cost at a per line cost of $87 per line associated with the growth of lines and trunks. Spreading the large fixed costs among a higher number of lines associated with ultimate demand may well result in a lower cost on a per-unit basis. Tr. 5299-5300 (Pitts); 5416-22 (Murray).

According to Verizon, Nortel has traditionally offered the same replacement and growth discounts,[12] and its per-line cost can serve as a "reality check" on the cost models because each switch vendor is likely to earn roughly the same in a competitive market. Tr. 5420, 5426-27 (Murray) (Pacific Bell acknowledgment that Nortel and Lucent provide equivalent switch price per line notwithstanding different pricing schemes). The Nortel cost per line of $88 is roughly comparable to the Synthesis Model's cost in this proceeding. AT&T/WCOM Ex. 4 (Pitts Dir.) at 4-5 (per line switch prices are roughly comparable taking into account EF&I costs). By contrast, the Verizon switch price per line as determined by the SCIS model varies **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]**. AT&T/WCOM Ex. 16 (Pitts Surreb.) at 4.

As discussed below, AT&T and WorldCom have different recommendations with respect to switch rate design. Clearly, either of these rate designs comports with TELRIC and produces switching costs that represent the forward-looking, long-run incremental switching cost for Virginia.

B. Verizon's Switching Cost Study Fails to Comply with TELRIC.

Verizon claims that its switching cost study is consistent with TELRIC. Verizon Ex.102 (Gordon Dir.) at 4-5, 20-21. In line with its other cost studies, however, the switching study embodies Verizon's embedded cost approach that looks backward rather than forward and to the short term rather than the long run. Indeed, Verizon's switch study develops costs that are even greater than Verizon's embedded costs.

---

12 As discussed *infra*, this policy may have changed recently. *See* Verizon Ex. 216 (Verizon Response to Staff Record Request 32) and p. 12-13 *infra*.

By contrast with the Synthesis Model approach, Verizon used its actual switch expenditures in 2000 and applied the discount associated with those purchases to all switching investment in determining switching costs. Verizon Ex. 107 (Verizon Recurring Cost Panel Dir.) at 189-92. The 2000 purchases include six new switches,[13] but those new switch purchases were dwarfed by the expenditures for growth/upgrade switching equipment. For Lucent, the supplier of **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY] of total Lucent switch purchases. WCOM Ex.102.

The growth switch discounts are much lower than the discounts for new or replacement switches. The discounts offered by the three switch vendors on the six new switches purchased in 2000 ranged between **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY]. Verizon Ex. 216 (Response to Staff Record Request 32). The Lucent discount percentage used in the SCIS model, reflecting the **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY] Verizon bought a new Siemens switch in Falls Church, Virginia at a **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]**, but total Verizon purchases of Siemens growth switching equipment in various states at a **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]** resulted in a diluted **[BEGIN VERIZON PROPRIETARY]** **[END**

---

13 In response to a Staff record request, Verizon reported the purchase of six new switches in 2000. This was by far the lowest number of new switches purchased over the past five years and represents only **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]** of new switch purchases during that five year period. Verizon Ex. 219.

VERIZON PROPRIETARY] applied by Verizon in its cost study. Interestingly, the Nortel bids **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY Given that Verizon's 2000 purchases were largely growth equipment, its use of the actual 2000 discount yields substantially higher costs than would use of the new switch discount mandated by TELRIC.

Verizon's application of its actual 2000 discount to all its switching investment is nonsensical, self-contradictory, and totally inconsistent with TELRIC or any other cost methodology. Verizon's cost study, in essence, assumes that an efficient carrier would repurchase its entire inventory of switches at the outset of the study period, but in the long run would obtain *only* the shallow discounts available for growth equipment. It also assumes that an efficient new entrant would not replace its switches in the long run, but would simply "add on" capacity or growth equipment. The result: costs higher than those that an efficient new entrant would incur, higher than those that Verizon incurs over the long run, and even higher than Verizon has actually incurred in the past – or is likely to incur in the foreseeable future. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 97-104, AT&T/WCOM Ex. 11P (Murray Reb.) at 33-35. Verizon's method is analogous to someone trying to calculate the price of a new car by going to the dealer and separately pricing all the car's parts.

---

14 Indeed, Verizon's cost model used a Nortel discount of **[BEGIN VERIZON PROPRIETARY]** **END VERIZON PROPRIETARY]** as did AT&T/WorldCom in its restatement of Verizon's cost study. These 2000 discount figures indicate that both the Verizon cost study and AT&T/WorldCom restatement overstate Verizon's costs.

In addition, Verizon totally ignores the TELRIC concept of the long run – the state of affairs in which all factors of production are variable, including all investment in switching equipment. Instead, it uses this snapshot of purchases from 2000, without any evidence that this year is representative or appropriate. What Verizon envisions is not the long run, but an infinite procession of short-run cost curves. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 99.

Verizon's position is also inconsistent with the competitive market model that the FCC's TELRIC rules are intended to emulate. In competitive markets, the threat of competitive entry holds prices down to those of the most efficient producer. This threat limits the prices recoverable by incumbent firms to the costs of an efficiently configured network—whether or not the actual networks of existing firms are actually optimized in this sense. *See Local Competition Orders* ¶ 675. Moreover, the competitive market pricing outcome is one that reflects the long-run asset optimization, as if it were instantaneously achieved, by the incumbent or a new entrant.

Verizon also applies its erroneous standard inconsistently. Verizon is claiming that because the short-run incremental costs of its add-on switch purchases are likely to be high, the long-run incremental costs of its baseload switching capacity are also high. If, however, the relevant standard is short-run costs (as Verizon suggests), the short-run incremental costs of Verizon's baseload switching capacity are likely to be extremely *low* because Verizon has already paid for its switches, much of Verizon's investment in those switches is sunk, and the switches have substantial spare capacity. The forward-looking cost of such sunk investment is

lower than even the net discounted cost of new replacement equipment, and may be as low as zero.[15] *See* AT&T/WCOM Ex. 11P (Murray Reb.) at 17-18.

Finally, Verizon's position is illogical. Because Verizon has replaced in Virginia *all* of its outdated analog switches with digital switches, *it obtained with respect to each and every one of those switches the very switch discounts that it now asks the Commission to disregard in setting network element rates.* Verizon would have this Commission allow it to charge its potential competitors inflated rates that reflect only a shallow growth discount for the use of switches that Verizon *actually purchased* at the much deeper discount and can continue to use at virtually no added cost for years. That flunks the straight face test.

Using an input for switch costs that assumes new switches, with the corresponding new switch discounts, conforms to the TELRIC pricing standard. Verizon has been unable to refute this principle. Its focus on growth equipment does not represent costs in the long run but, instead, represents costs in a series of short-run time frames and includes costs that in a short-term study would be regarded as "sunk" costs. Verizon's cost study results are excessively high and, if used, will inappropriately inflate UNE prices and impede the development of competition in the Virginia local exchange market.

III. VERIZON'S SWITCHING COSTS ARE LARGELY NON-TRAFFIC-SENSITIVE.

Another significant issue is the ratio of traffic-sensitive to non-traffic-sensitive costs in Virginia. While the Synthesis Model uses this ratio to allocate costs between the fixed port charge and the variable minute-of-use element, Verizon assigns SCIS model results directly to the traffic-sensitive and non-traffic-sensitive categories. AT&T and WorldCom have

---

[15] *See* A. Kahn & W. Shew, *Current Issues In Telecommunications Regulation: Pricing*, 4 Yale J. on Reg. 191, 225 (1987).

demonstrated that switching costs are largely non-traffic-sensitive, whereas Verizon claims that the majority of switching costs are traffic-sensitive.

Cost causation should determine the allocation of costs between traffic sensitive and non-traffic sensitive elements to provide appropriate economic signals to consumers. AT&T/WCOM Ex. 8 (Murray Dir.) at 6-7; Tr. 5460 (Murray). Digital switches are now basically large computers, and advances in technology associated with memory and processing power provide current digital switches with memory and processing power that far exceed expected demand. Given the computing power available in modern switches, the primary limiting factor in today's digital switch is not processing capacity but rather the exhaustion of the number of ports. AT&T/WCOM Ex. 4 (Pitts Dir.) at 7-8.

Much of the total cost of a switch is associated with memory and processors and is incurred at the time a switch is placed in operation. These "getting started" costs do not vary with usage or features.[16] If a switch does exhaust because the maximum port capacity is reached, then a wire center must incur the cost of a second switch. The exhaustion of the first switch's ports is the primary cause for incurring the "getting started" cost for the second switch, and accordingly these costs should be assigned to the ports. AT&T/WCOM Ex. 4 (Pitts Dir.) at 7.[17] Moreover, to the extent that costs are traffic-sensitive, these costs are caused by the need to serve peak capacity. AT&T/WCOM Ex. 8 (Murray Dir.) at 14.

Verizon claims that the switch performs multiple tasks in connection with each call and that therefore it is "appropriate to categorize a significant portion of the switch as traffic

---

16 Similarly, the right-to-use ("RTU") fees paid for switch software do not vary with usage and, like the "getting started" costs, are non-traffic sensitive. As a result, one cannot remove feature costs from the "getting started" costs as those costs do not change for features.

sensitive." Verizon Ex. 109 (Murphy Reb.) at 52-56. Taking this approach, Verizon's SCIS Model treats **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]** as traffic sensitive.

Verizon's approach ignores cost causation principles. Verizon's own switch experience shows that the switch does not exhaust on processor capacity, and Verizon's switch usage data show that switch usage as a percentage of processor capacity is "infinitesimally small." AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 112 & n.93; Tr. 5171 (Pitts). Indeed, switch usage could double or quadruple without exceeding processor capacity. Tr. 5447, 5455-56 (Pitts).

Telcordia, the developer of the SCIS model, also states that the primary reason for switch module exhaust is terminal (i.e., port) exhaust and not call capacity: **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY]

During the hearings Verizon witness Gansert conceded that a switch is designed to be port-limited and generally will not exhaust on processing capacity:

> [T]here is no question that in ordering the switch, it's designed so it will be, in effect, port-limited, so [what] will trigger you to do additions is ports. But that doesn't imply you don't have to have processing resources. It only says that that's the way you design it.

---

[17] Telcordia's SCIS model manual states **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY]

> Secondly, the evidence of that is it's true that if you exceeded the [processor] limit, you would have to put in more switches, and over recent years we haven't been doing that. The reason why is because the vendors have been increasing the capacity of their switches. Tr. 5449 (Gansert).[18]

Mr. Gansert also conceded that Verizon was not allocating costs based on cost causation but rather based on the use of resources devoted to complete the call:

> Our logic for assigning investment to the traffic-sensitive category is from a cost allocation point of view is that resources that support calls are logically recovered by the benefit that they provide, that these processing -- its design -- is [to] complete calls. That's the role it plays in the switch, and it's perfectly sensible to relate the product that's benefiting from the resource to the consumption of that resource, and calls is what consumes the processor. Tr. 5450-51 (Gansert).[19]

As Ms. Murray testified, this is an inappropriate basis for allocating costs because it sends the wrong pricing signals to consumers. Moreover, positive charges for usage when Verizon incurs no incremental cost to supply those rate elements can lead to substantial overrecovery of forward-looking costs and can severely deter competitive entry. AT&T/WCOM Ex. 8 (Murray Dir.) at 13-16.

Cost causation should determine the allocation of traffic-sensitive and non-traffic-sensitive costs, with processor and "getting-started" costs being allocated to the non-traffic-sensitive fixed port element because they do not vary with volume:[20]

---

18 *See also* Tr. 5457 (Gansert) ("our assumption at the current time would be that for most of our switches the central processor is not going to exhaust.")

19 *See also* Tr. 5458-59 (Gansert) (after describing costs directly attributable to ports and costs attributable to lines, stating "[t]he other costs in the switch are there to be shared by the users of the switch. The use of the switch is measured in terms of calls that you make, and that's the most sensible way to distribute the cost because that's the way the benefit is achieved by the customers. That's our logic.")

20 AT&T/WorldCom assigned cost categories to the appropriate element based on an engineering analysis to understand the functions and capacities of the equipment whose costs are being

> the reason that we proposed treating [the processor costs and getting started costs] as per-line costs is to avoid sending the signal that usage on the margin has a variable cost, and that deterring customers when their incremental usage has a zero marginal cost from making additional calls which will benefit everyone and, ironically, reduce the average cost per call of these getting-started costs.
>
> So if you want to talk about what a good way of recovering what the parties appear to agree is a cost that will be fixed and will not change with calls, that is our rationale, . . . a cost-causation rationale because additional calls are not causing this cost. Tr. 5460 (Murray). *See also* Tr. 5176-77.

Using this cost causation principle, Verizon's costs are approximately **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY]

AT&T/WCOM Ex. 16 (Pitts Surreb.) at 7 n.17 & Prop. Ex. 1.[21]

IV. VERIZON'S OTHER CRITICISMS OF THE SYNTHESIS MODEL ARE WITHOUT MERIT.

Verizon raises several criticisms of the Synthesis Model, none of which has any merit.

A. The Synthesis Model Handles Peak Call Volumes in the Same Manner as Verizon.

Verizon criticizes the Synthesis Model for allegedly failing to provide sufficient investment to handle peak traffic. Verizon Ex. 109 (Murphy Reb.) at 50-52. This criticism is

---

assigned, and an economic analysis to ensure conformance with long run, forwarding-looking cost methodology that assigns costs based on economic cost causation. Cost categories assigned to traffic-sensitive and non-traffic-sensitive categories are set forth at pages 114-16 of AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.).

21 The ratio of traffic-sensitive and non-traffic-sensitive costs in the Verizon model and the ratio used as an input to the Synthesis Model are calculated differently. Verizon includes trunks in the non-traffic-sensitive cost category (as least initially in the cost study where the ratio is calculated), and the Synthesis Model includes trunks as a traffic-sensitive cost. AT&T/WCOM Ex. 16 (Pitts Surreb.) at 7 n. 17.

baseless, as the Synthesis Model uses the exact same process as Verizon to handle peak period traffic, except that the Synthesis Model starts with annual traffic and Verizon's model starts with the busy hour peak traffic. Indeed, the Busy Hour to Annual Ratio used by Verizon in its common transport cost study is almost identical to the same factor as derived from the Synthesis Model. AT&T/WCOM Ex. 19 (Turner Surreb.) at 5-7.

B. The Synthesis Model Develops the Appropriate Switch UNE Costs.

Verizon criticizes the Synthesis Model for failing to develop the array of switching UNE costs that are produced by its SCIS Model. Verizon Ex. 109 (Murphy Reb.) at 48; Tr. 5191-92 (Verizon questions at hearing regarding switching costs developed by Synthesis Model). This is not a concern, as many of the cost elements in question developed by the SCIS Model, for example, relate to features and are already included in the Synthesis Model costs, Tr. 5191-92 (Pitts, Murray). For ISDN costs that are not developed by the Synthesis Model, AT&T/WorldCom has provided alternative means of deriving those costs. AT&T/WCOM Ex. 4 (Pitts Dir.) at 4.

C. The Synthesis Model Provides Adequate MDF and Power Investments Factor.

Verizon claims that the Synthesis Model fails to provide sufficient MDF and power investments factor. Verizon Ex. 109 (Murphy Reb.) at 90-91. The reality is that Verizon's MDF and power investments factor are almost the same as those used in the Synthesis Model. Even if they were not comparable, however, the MDF and power investments factor relate solely to switches in the Rural Utilities Service data, a small subset (13%) of all switches in the FCC

study.[22] As a result, any changes to these figures would not have a material effect on the FCC's switch price input results. AT&T/WCOM Ex. 16P (Pitts Surreb.) at 7-8.

V. VERIZON'S SWITCH COST STUDY OVERSTATES AND MISALLOCATES COSTS.

A. Verizon's TR-008 "Work-Around" in its Revised Switch Cost Study Overstates Costs.

Verizon submitted its revised cost study after it discovered that SCIS did not regard TR-008 to be forward-looking technology for use with the Lucent 5ESS SM2000 switch module and therefore dropped one million TR-008 lines from Verizon's original switch cost study. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 6. After consultation with Telcordia, Verizon developed a "work-around" to address this problem by treating the GR-303 input data as if it were terminated at TR-008 remote terminals deployed in Virginia and by making out-of-model calculations relating to the TR-008 lines. *Id.* at 6-10.

This "work-around" resulted in additional investments in facilities that are not required for TR-008 as Verizon wants to assume.[23] Verizon in discovery acknowledged that these additional facilities increased costs by **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY]. AT&T Ex. 142P. In addition, the significant concentration available with GR-303 lines is lost in the "work-around" that assumes termination of 96 lines at older TR-008 facilities with 1:1 concentration. Using GR-303 with its 4:1 concentration ratio and ability to terminate 1039 lines per remote terminal leads to a nine percent

---

22 The switches in the FCC's ILEC depreciation data already include MDF and power investments. AT&T/WCOM Ex. 16 (Pitts Surreb.) at 8.

23 Note that this does not mean that TR-008 lines are necessarily less expensive than GR-303 – only that modeling TR-008 lines using inputs that reflect TR-008 characteristics on equipment designed to terminate GR-303 results in incorrect costs.

decrease in 5ESS switch investment. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 9-10 & n.14. Tr. 5375-76 (Pitts). On the other hand, paying for GR-303 equipment that provides concentration, and then ignoring that feature in its cost study, as Verizon has done, necessarily overstates costs.

B. Verizon Misallocates Combination Local/Tandem Switch Costs.

Verizon was forced to file a *second* revised switch cost study after it discovered that it had failed to include combination local/tandem switches in its cost study. Verizon Ex. 161 (Matt Second Supp. Surreb.) at 2-3. These combination local/tandem switches serve both subscriber lines and perform trunk-to-trunk tandem switching. To compute the costs of these combination local/tandem switches, Verizon ran its study with and without these switches and added the difference in the cost to the tandem switching costs. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 10-11.

This approach is inappropriate because it ignores the savings that should have been shared with the end office to reflect the common costs between end offices and tandem switches. Making the appropriate adjustments to share the savings based on the relative number of local line and trunk ports and tandem ports decreases the Lucent 5ESS total local end office costs approximately four percent. *Id.* at 11-12.

C. Verizon's Right to Use ("RTU") Fees Include One-Time Costs and Are Overstated.

RTU fees represent the annual switch software expense and is based on historical expenses for the 1999 and 2000 and forecasts for 2001 and 2002. Not all RTU expenses are appropriate for inclusion the switch cost study. To the extent that these expenses are "catch-up" payments to bring software current, they do not represent forward-looking expenses and should

be excluded from the cost study. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 116-17. In addition, these RTU are paid on a per-switch or per-port basis, or as part of a buyout to purchase the software for all switches. Thus, these RTU fees should be allocated to the fixed port charge and not allocated, as Verizon does, to the minute-of-use cost element. *Id.* at 119. Verizon conceded that it does not incur RTU fees on any usage-sensitive basis. Tr. 5495-96 (Gansert).

The 1999 RTU expense is significantly higher than the expense in other years. The 1999 figure was the result of a one-time expense to comply with implementation of Accounting Statement of Position 98-1, Tr. 5438 (Minion), as well as one-time payments to bring software current, and other one-time software buyouts. The payment relating to the change in accounting principle is a one-time payment that will not be recurring and has been excluded in AT&T/WorldCom's restatement. The other one-time buyouts and "catch-up" payments are not reflective of a forward-looking environment and should also be excluded from Verizon's cost study. AT&T/WCOM Ex. 24P (Pitts Supp. Surreb.) at 15; Tr. 5160-64 (Pitts).

D. The Switching Engineering, Furnished and Installed ("EF&I") Factor Is Overstated.

Verizon's region-wide switching EF&I factor is overstated. This Commission has previously questioned Verizon's Continuing Property Records, which serve as a basis for EF&I costs, and in at least some states Verizon performs its own engineering and installation work without the benefit of a competitive bid. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 120-122. Verizon has failed to provide information that would allow a determination of the reasonableness of its EF&I factor, which at **[BEGIN VERIZON PROPRIETARY]** **[END VERIZON PROPRIETARY]** is significantly higher than the 8% figure adopted by this Commission in the USF proceeding or the average of 10%

submitted by companies in the 1992 Open Network Architecture proceedings. In the absence of evidence from Verizon that its EF&I factor is reasonable, AT&T/WorldCom suggest that inputs from a Verizon filing in the Open Network Architecture proceeding, SCIS/MO outputs, and sales tax figures, be used in developing an EF&I factor of **[BEGIN VERIZON PROPRIETARY]**

[END VERIZON PROPRIETARY] This is, if anything, overly generous to Verizon, given the much lower percentage used in retail contexts.

E. "Getting Started" Costs and RTU Costs Should Either Be Excluded from Reciprocal Compensation Rates, or if Allocated to the Minute-of-Use Costs, Included on the Same Basis as in Switch UNE Rates.

For reciprocal compensation, Verizon excludes "getting started" costs and RTU fees, even though it includes those costs in its switch UNE usage rates. During the hearings, Verizon conceded that there was no cost difference between terminating a call under a reciprocal compensation arrangement and terminating a call to a UNE customer. Tr. 5488-89 (Matt); AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 122 (admitting that the "switch does not treat either type of terminating call differently" (quoting Verizon Response to AT&T Data Request 8-22)). Nonetheless, Verizon claims that it is entitled to charge different amounts for these calls under the Telecommunications Act, Tr. 5504-05, 5511-12 (Gansert), but it is merely trying to maximize its UNE revenues (thereby injuring its UNE competitors) and minimize the amounts it pays in reciprocal compensation. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 123.

Verizon should not be able to charge different amounts to terminate a call on a reciprocal compensation or UNE basis. As discussed in connection with traffic-sensitive costs, the "getting started" cost of a switch and the RTU fee should not be included in the traffic-sensitive UNE

elements, but properly belong in the non-traffic-sensitive port elements. If Verizon is required to include the "getting started" costs and RTU fee in the non-traffic-sensitive port charge, then the problem with the inconsistent charges becomes moot. However, if the Commission does not require Verizon to allocate the getting started costs and RTU fees to the non-traffic-sensitive costs, then the "getting started" cost and RTU fees should be apportioned to all traffic, including reciprocal compensation, and not just to UNE switch usage rates. AT&T/WCOM Ex. 12P (AT&T/WorldCom Recurring Cost Panel Reb.) at 124.

F. Verizon's Features Costs Are Unsubstantiated.

If the Synthesis Model is not adopted, Verizon's feature costs should be adjusted as suggested in the Pitts Supplemental Surrebuttal testimony because the feature costs vary widely, and Verizon has failed to provide supporting information to demonstrate their reasonableness or show that they are consistent with similar inputs for other features in Verizon's filing. *Id.* at 110-111; AT&T/WCOM Ex. 24P (Pitts Supp Surreb.) at 17.

VI. WORLDCOM RECOMMENDS THAT THE COMMISSION ADOPT A FLAT RATED SWITCH RATE DESIGN THAT RECOVERS ALL COSTS THROUGH A FLAT RATED PORT CHARGE.

There is more agreement than disagreement among the parties about the principles that govern appropriate switch rate design, and the application of those principles here. Thus no one disputes that ideally charges should reflect costs, such that usage or traffic-sensitive costs should be reflected in usage-sensitive charges, and that non-traffic-sensitive costs should be recovered in a flat rated port charge. WCOM Ex. 6 (Goldfarb Dir.) at 3-4; AT&T/WCOM Ex. 8 (Murray Dir.) at 6-7; Tr. 5460 (Murray). The parties also agree that some switch costs are driven by peak period usage requirements, while others are non-traffic sensitive, though they disagree about what proportion of the costs fall into either category. AT&T/WCOM Ex. 8 (Murray Dir.) at 14.

And they agree that no costs are caused by non-peak period usage. *Id. See* p. 16 *supra*. Finally, no party disputes that it is practically impossible to base a usage sensitive rate on peak period usage. WCOM Ex. 6 (Goldfarb Dir.) at 4-5.

WorldCom would prefer to pay for Verizon's peak period capacity-driven traffic-sensitive switching costs through a flat-rated port charge, so that all switching costs would be recovered in one flat-rated charge. It is easy to administer and audit, WCOM Ex. 6 (Goldfarb Dir.) at 6, and it avoids contentious issues about the appropriate usage assumptions that need to be made if a portion of the charges are assessed on a minute-of-use basis. If the rate assumes too little usage, then Verizon will receive a windfall. There is simply no reason to have to engage in unnecessary dispute over an assumption that can be avoided by recovering all costs through one flat-rated charge. *Id.*

In addition, Verizon's current residential retail rates are flat-rated, and WorldCom believes most residential customers prefer such flat rated service. If it pays a flat rated wholesale charge, WorldCom will be able to match Verizon's retail rate structure while mirroring its own cost structure. A flat charge for switching will in that way maximize competitive provision of flat based residential services. *Id.*

Finally, there is nothing inconsistent or surprising about AT&T preferring one rate design method and WorldCom another. Both carriers understand that because of the difficulties inherent in basing a rate on peak usage, a rate design that accurately mirrors cost is impossible to develop. Turning to practical alternatives, the carriers have different senses of their own business risks and the costs involved in changing to a flat-rated design structure. The more important point is one upon which they agree: that far more of the costs of switching are fixed than are usage sensitive. That fact also means that there would be no unfairness to Verizon if

some CLECs use flat rated switching and some a mixture of flat rated and usage sensitive. Because most of the charges are flat rated in either case, there is no risk that the carriers could target different groups of customers based on their rate design choice and leave Verizon under-compensated for its switching costs.

VII. AT&T RECOMMENDS THAT THE COMMISSION RETAIN THE EXISTING "PORT AND PER MINUTE" RATE DESIGN FOR UNBUNDLED SWITCHING BUT HAS NO OBJECTION TO WCOM'S FLAT RATE SWITCHING RATE BEING MADE AVAILABLE AS AN OPTION.

Verizon incurs switching costs on both a traffic sensitive and non-traffic-sensitive basis.[24] AT&T recommends that switching rates be designed the same way, so that non-traffic-sensitive costs are recovered through flat rate port charges and traffic-sensitive costs through minute-of-use charges.[25] This is the same fundamental rate design already adopted in the Commission's *Local Competition Order* and by every state commission that has implemented UNE rates. Tr. 5472-73 (Kirchberger, Murray); Tr. 5467 (West).

That being said, AT&T has no objection to the Commission also adopting, on an optional basis, the flat rate switching charge WCOM advocates.[26] Indeed, there are a number of policy reasons why such a rate structure would be appropriate, key among them under a flat rate

---

24 *See* Section III, *infra*, which discusses why the lion's share of Verizon's switching costs are non-traffic sensitive. These are the costs which should be recovered through the port charge. The traffic-sensitive costs should be recovered through per minute charges.

25 AT&T Ex. 4 (Kirchberger Dir.) at 14; Tr. 5469-70 (Kirchberger). As Ms. Murray explained, AT&T's proposal is to have a port charge that recovers all of the costs identified in the Synthesis Model run as non-traffic sensitive, which is a higher proportion of non-traffic-sensitive costs than is reflected in current Virginia rates. Tr. 5473 (Murray).

26 WorldCom witness Goldfarb acknowledged on rebuttal that WorldCom is willing to have flat rated switching available as an optional service, offered in addition to the traditional port/MOU rate structure. WCOM Ex. 23 (Goldfarb Reb.) at 5.

structure Verizon would be offering switching to its wholesale customers in the same manner that it offers it to its high use retail customers.[27]

AT&T readily acknowledges the need to constrain the flat rate option to protect against arbitrage. Absent appropriate constraints, a CLEC could have an incentive to purchase per minute switching for its low volume customers and flat rate switching for its high volume customers. This could leave Verizon with unrecovered costs, depending on how the rate was calculated. To preclude such a result, AT&T recommends that CLECs be required to designate, for each carrier code under which it operates, either the per minute or flat rate option for all of its customers served under that code.[28] With this constraint, CLECs would not have the ability to vacillate between per minute and flat rate switching based on each individual customer's calling volumes. Rather, the CLEC would be required to elect either the per minute or the flat rate option for all of its customers, high volume and low volume alike.

Verizon, even though it acknowledges that the flat rate option is "sensible," Tr. 5475 (West), nevertheless opposes it, primarily out of concerns over the arbitrage problem that AT&T's designation recommendation resolves.[29] If AT&T's constraint is adopted, Verizon's only real objection is resolved.

---

27 WCOM Ex. 6 (Goldfarb Dir.) at 7. Mr. Goldfarb also indicates that a flat rate option would be easier to apply, easier to audit, would minimize Verizon's opportunities to inflate its competitors' costs, and would end debates over how Verizon's per minute rates are to be applied to intra-switch calls. *Id.* at 4-7.

28 Some CLECs, including AT&T, do business under multiple carrier codes. AT&T's recommendation is that a CLEC be required to designate the per minute or flat rate option on a per-code basis. Tr. 5469-5471 (Kirchberger).

29 Verizon's witness conceded that the potential for arbitrage is Verizon's primary concern with a flat rate switching option. "[I]f you did introduce an option, carriers would gravitate to the option that best suits them. My guess is that high-usage customers would go for a flat-rate port. Low usage or carriers who provide service to relatively low-use customers would gravitate towards the measured structure. . . . [T]he bottom line Verizon isn't getting itscosts covered, and I think *that more than anything else is why we disagree with that.*" Tr. 5474-75 (West) (emphasis added).

Even without the constraint AT&T recommends, Verizon's objection has no merit. At present, unbundled local switching is not even available for business customers with more than three lines per location in major metropolitan areas. These are likely to be the high volume customers that CLECs would want to target with flat rate switching, but cannot because of the Commission's restriction on switching availability. Tr. 5480 (Murray). Thus, if anything, the Commission's existing restrictions on unbundled local switching actually protect Verizon against the problems it perceives with WorldCom's flat rate switching proposal.

CONCLUSION

Yogi Berra also said that "You can observe a lot by just watching." In this proceeding, we have seen a lot: Verizon's improper reliance on its costs derived from its embedded network, its adoption of all manner of cost adjustments and factors designed solely to increase costs and perpetuate that embedded base, and its aversion to forward-looking long-run costs. Verizon's switch cost study, in its many iterations, merely perpetuates its past practices and never looks ahead. It is time to move forward on the cost methodology issues. This Commission should reject all Verizon's cost studies and send a signal to state commissions by adopting the Synthesis Model as the appropriate way to determine UNEs. Everyone is watching.

Respectfully submitted,

Mark D. Schneider /DWR

Lisa B. Smith
Allen Freifeld
Carl Giesy
WorldCom, Inc.
1133 19th Street, N.W.
Washington, D.C. 20036

Mark D. Schneider
Marc A. Goldman
Jenner & Block LLC
601 Thirteenth Street, N.W.
Washington, D.C. 20005

Counsel for WorldCom, Inc.

Mark A. Keffer
Stephanie Baldanzi
AT&T
3033 Chain Bridge Road
Oakton, Virginia 22185

Matthew W. Nayden
Stuart M. Kreindler
Ober Kaler Grimes & Shriver
120 E. Baltimore St.
Baltimore, MD 21202

Cynthia A. Coe
5406 Kirkwood Drive
Bethesda, MD 20816

David M. Levy
Alan C. Geolot
R. Merinda Wilson
Sidley Austin Brown & Wood
1501 K Street N.W.
Washington, D.C. 20006

Counsel for AT&T

January 17, 2002

ATTACHMENT

WCOM ANALYSIS OF CLEC UNE-P LOSSES UNDER VERIZON VIRGINIA RATES

	State	Cell 1	Cell 2	Cell 3
Households (000)	1,909	1,543	202	165
Density	100%	81%	11%	9%
Local Revenue (1)	$22.74	$22.92	$22.21	$21.70
Access Revenue	$3.47	$3.47	$3.47	$3.47
Total Revenue	$26.21	$26.39	$25.68	$25.17
Switch Port	$2.91	$2.91	$2.91	$2.91
Loop (2)	$22.33	$17.86	$26.31	$43.45
Switch Feature	$0.00	$0.00	$0.00	$0.00
Switching & Transport	$11.02	$11.02	$11.02	$11.02
DUF Charge	$0.43	$0.43	$0.43	$0.43
Total Telco (3)	$36.68	$32.21	$40.66	$57.80
Gross Margin	($10.48)	($5.83)	($14.99)	($32.64)

1 Includes line fee, 1 feature (Call Waiting @ $3.85), and SLC.

2 Represents VZN state average loop.

3 Does not include NRC.

Note: Analysis does not include CLEC internal costs (e.g., billing, customer service, sales/acquisition, bad debt)

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Petition of AT&T Communications	)	
of Virginia, Inc., Pursuant	)	
to Section 252(e)(5) of the	)	
Communications Act, for Preemption	)	**CC Docket No. 00-251**
of the Jurisdiction of the Virginia	)	
State Corporation Commission	)	
Regarding Interconnection Disputes	)	
with Verizon-Virginia, Inc.	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of January, 2002, a copy of the public version of the Joint Initial Post-Hearing Brief Of WorldCom, Inc. and AT&T On Switch Cost Issues was sent via hand delivery, federal express and/or by email to:

Dorothy Attwood, Chief
Common Carrier Bureau
Federal Communications Commission
Room 5-C450
445 12th Street, S.W.
Washington, D.C. 20544

Jeffrey Dygert
Assistant Bureau Chief
Common Carrier Bureau
Federal Communications Commission
Room 5-C317
445 12th Street, S.W.
Washington, D.C. 20544

Katherine Farroba, Deputy Chief
Policy and Program Planning Division
Common Carrier Bureau
Federal Communications Commission
Room 5-B125
445 12th Street, S.W.
Washington, D.C. 20544

Jodie L. Kelley, Esq.
Jenner and Block
601 13th Street, NW
Suite 1200
Washington, DC 20005
(for WorldCom)

Jill Butler
Vice President of Regulatory Affairs
Cox Communications, Inc.
4585 Village Avenue
Norfolk, Virginia 23502

Karen Zacharia, Esq.
Verizon, Inc.
1515 North Court House Road
Suite 500
Arlington, Virginia 22201

Danny W. Long

Danny W. Long