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

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Review of the Commission's Rules	)	
Regarding the Pricing of Unbundled	)	WC Docket No. 03-173
Network Elements and the Resale of Service	)	
by Incumbent Local Exchange Carriers	)	
	)	

JOINT REPLY DECLARATION OF
TERRY L. MURRAY AND CATHERINE E. PITTS

I. INTRODUCTION AND SUMMARY

1. My name is Terry L. Murray. With Catherine E. Pitts, I previously submitted a declaration in this proceeding addressing the appropriate treatment of switching costs under TELRIC principles on December 16, 2003. My background and qualifications are set forth in that initial declaration.

2. My name is Catherine E. Pitts. With Terry L. Murray, I previously submitted a declaration in this proceeding addressing the appropriate treatment of switching costs under TELRIC principles on December 16, 2003. My background and qualifications are set forth in that initial declaration.

3. Various incumbents raise their shopworn arguments in claiming that switching investment should largely reflect the smaller growth discounts or higher per-line growth prices available from switch manufacturers without also reflecting the use of new switches purchased at the larger new switch discount or better per-line

new switch prices. *See, e.g.,* Verizon at 48-53; BellSouth at 28-29; SBC at 70-73. In so claiming, they argue that manufacturers would price their switches differently in a TELRIC environment and that switching investment should reflect the current cost of switching equipment, which largely reflects growth and upgrade equipment. These arguments have no basis in fact and reflect the incumbents' short-run outlook tied firmly to their embedded switching base. By contrast, AT&T's proposed life cycle approach is consistent with forward-looking, long-run costing principles in determining switching investment over the life of the switch, based on use of a new switch with the most up-to-date technology as well as growth equipment for capacity increases over the life of the switch.

4. On the issue of switching rate structure, Verizon argues in favor of usage rates, Verizon at 53-55, ignoring the fact, demonstrated in our initial declaration, that switching costs are largely non-traffic-sensitive. Murray/Pitts Dec. ¶¶ 39-57. Moreover, the small portion of traffic-sensitive costs relate to peak-period usage, which as a practical matter cannot be allocated to peak-period users. As found by the Wireline Competition Bureau in the Virginia Arbitration Proceeding and recommended in our initial declaration, the most appropriate and practical approach is a switching rate structure based on a fixed, per-port charge.

II. THE INCUMBENTS' ARGUMENTS REGARDING SWITCHING INVESTMENT ARE ERRONEOUS.

5. Verizon presents a variety of arguments against the use of the price for new switches in a forward-looking cost study, but all ignore recent history or are the result of Verizon's short-run and embedded base mindset. Verizon argues that the current prices for new switches are atypical and "anachronistic"; switch manufacturers would not offer such low prices for new switches if, in fact, they expected incumbents to purchase many new switches as opposed to the current forecast for predominantly growth and upgrade investments. Verizon at 52-53. These arguments, however, ignore recent history. The analog-to-digital switch replacement programs began in the mid-1980s, and these programs provided highly favorable new switch prices relative to prices for growth equipment for switches.[1] The switch manufacturers routinely offered these "special" prices for more than a decade. Recent reviews of new switch prices show that most vendors continue to offer significantly lower prices per line (or switch port) for new switch purchases than for growth purchases, and new switch prices at the routine "special" pricing levels are still available, as evidenced in the Virginia arbitration proceeding and the Massachusetts UNE proceeding.[2] Given that switch vendors have offered relatively low prices for switches for a decade or more, Verizon simply cannot claim that such new switch prices are atypical or "anachronistic." Moreover, Verizon provides no evidence – only its rank conjecture – that the switch vendors' profits differ between new switch and growth switch purchases.

[1] Our comments regarding switch pricing apply whether the actual switch cost inputs are formatted as discounts or switch prices.

[2] *Virginia Arb. Order*, ¶ 385; *Massachusetts Order,* at 290-303.

6. Verizon also argues that vendors knew the expected life of their digital switches when they began marketing those switches in the 1980s and claims that manufacturers priced those switches so that they could accurately ensure full cost recovery based on the vendor's assessment of the new and growth equipment purchases expected to be purchased. Verizon at 50-51 & Shelanski Dec. ¶ 46. This theory fails to consider the massive changes that have occurred in the computer industry, the economies associated with evolving switch, computer, and microchip technologies, or the efficiencies in switch manufacturing experienced by switch manufacturers over the life cycle of digital switch technology. The differential in price between new and growth equipment can be attributed to many factors, not the least of which is the economies of scale of provisioning an entire switch compared to the manufacture and distribution of piecemeal upgrades and growth equipment to various components within embedded switches.

7. Verizon's argument also ignores the fact that the vendors that provide the incumbents with switches also provide them with a wide assortment of telecommunications technologies, such as equipment for the SS7 and outside plant networks, and wireless and broadband technologies. One cannot simply focus on one product – digital switches – in a multiproduct environment. Verizon's narrow focus oversimplifies the pricing strategies of switch equipment suppliers and fails to reflect the dynamic nature and changes in the switch equipment world.

8. SBC raises the tired argument of "the razor and the blade," whereby it asserts that the vendors sell new switches cheaply to obtain the supposedly high-profit growth and upgrade equipment purchases. SBC at 71. SBC, however, fails to demonstrate that its premise of lower profit margins for new versus growth and upgrade equipment is correct. In fact, switch vendors do not appear to have been earning record profits during this period in which most ILECs are buying predominantly growth and upgrade equipment. Indeed, the alternate theory that higher profit margins are enjoyed on new switch purchases matches the market realities more closely than do SBC's various arguments that depend upon the assumption that growth and upgrade equipment is more profitable.

9. Moreover, history does not support SBC's position. As the last decade of the 20th century approached, most incumbents completed their analog to digital switch conversions. This meant they were purchasing relatively small amounts of switch equipment as new switch purchases compared to the vastly larger amounts of growth and upgrade equipment. If the "hostage" argument were true, then one would have expected increased growth and upgrade switch equipment prices to correspond with the incumbents' dependence upon specific manufacturers. Instead, all switch prices have been declining, including growth and upgrade equipment.

10. Various incumbents assert that prices actually paid should be the standard for determining switch prices. Verizon at 50 ("price a carrier pays today" is the

"most accurate measure" of forward-looking cost of switching investment);[3] BellSouth at 28-29 (advocating use of a "snapshot" of switching prices at a particular time); SBC at 71.[4] In so claiming, these incumbents clearly know that use of prices actually paid for recently purchased equipment leads to the assumption of essentially 100% growth equipment in determining switching investment, as the incumbents have purchased very few new switches in the past few years. Moreover, the use of current prices measures only the cost to upgrade and grow the embedded switch base and in no way takes account of the long run on which forward-looking costs should be based.[5]

11. Indeed, the incumbents' position is totally inconsistent with forward-looking, long-run costing principles but would also produce rates even greater than "embedded costs." Having replaced *all* of their outdated analog switches with digital switches, the incumbents obtained with respect to each and every one of those switches the very switch discounts that they now ask the Commission to

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[3] Verizon continues its elasticity with the English language, seeking to claim that the "prices a carrier pays today" reflect the switching manufacturers' revenue requirement and is an "approach [that] might be thought of as a form of 'life cycle' cost for switching capacity." Verizon at 50, 51. Verizon's "life cycle" has a very short life.

[4] In the Virginia proceeding, Verizon proposed a less radical assumption of essentially 100% growth discount by suggesting that the mixture of new and growth equipment that currently exists in the embedded network over a longer period of time would be a more accurate "life cycle" cost. This, too, is inappropriate as the 1990s saw a sudden and temporary spike in line growth associated with second lines, many of which have now been replaced with broadband access and cellphone technologies. An historical look at switch purchases would overestimate the amount of growth equipment relative to new switch purchases and would therefore not provide a good estimate of forward-looking switch prices in the long-run.

[5] The FCC has held that switch prices based on 100% growth discounts violate long-run cost study principles. *Virginia Arbitration Order*, ¶ 387; *Rhode Island 271 Proceeding*, ¶ 34.

disregard in setting network element rates. The incumbents would have this Commission allow them to charge their potential competitors inflated rates that reflect only a shallow growth discount for the use of switches that the incumbents *actually purchased* at the much deeper discount and can continue to use at virtually no added cost for years.

12. An approach that relies on switching prices based on the "snapshot" that results in use of essentially 100% growth discounts would no longer result in a long-run study. In such a case, the large fixed investment in switches would be considered "sunk," and therefore would not be relevant in setting incremental switching rates. *See* Murray/Pitts Dec. ¶¶ 13-15 (discussing difference between short-run and long-run methodology); *see also* Shelanski Dec. (Verizon) ¶ 45 (arguing relevance of total cost of the switch, which implies a long-run approach to switching investment).

13. SBC argues that switching investment must include the mix of technology used by an incumbent. SBC at 70-71. In so arguing, SBC confuses the issue of assuming use of one switch manufacturer's technology with the assumption of best-in-class pricing. AT&T has not advocated that a company assume only one switch vendor or technology. Nor has AT&T proposed that individual switch components be analyzed for the most efficient price. AT&T *has* proposed that the *prices* offered by the lowest-cost switch equipment provider reflect the forward-looking cost of switching, given the competitive nature of the switch equipment market. As SBC concedes, SBC at 71, the competitive nature of the switch

equipment market should keep switch prices reasonably level across technologies. Frequently in cost proceedings, however, there are vast differences in switching investment on a per-line basis. Inflated switching prices are generally the result of the incumbents' flawed analyses of switching costs, and for this reason, it is appropriate to rely on the costs of the most efficient switch equipment provider in determining switching investment.

III. SWITCHING COSTS SHOULD BE RECOVERED THROUGH FLAT, PER-PORT CHARGES.

14. On the issue of switching rate structure, AT&T has proposed use of flat, per-port charges. AT&T at 75-78. As we demonstrated in our initial declaration, switching costs generally do not change with volume. Murray/Pitts Dec. ¶¶ 39-57. A small percentage of traffic-sensitive costs relate to peak period usage, but as the Wireline Competition Bureau determined in the Virginia Arbitration Proceeding, it is not practical or efficient to recover those charges through traffic-sensitive charges.[6] Accordingly, a flat, per-port switching charge allows for the recovery of all switching costs and mirrors the flat-rated pricing structures for switching offered to residential and small business customers.

15. Verizon argues against use of a flat, per-port charge, claiming that switching costs are largely traffic sensitive. Verizon at 53. Verizon agrees that switching costs should be recovered "'in a manner that reflects the way they are incurred,'" *Id.* (quoting *Local Competition Order*, ¶ 743), but ignores the evidence presented in

[6] *Virginia Arbitration Order*, ¶ 478.

our initial declaration, including the statements of its own officials, that switching costs do not vary significantly with usage. Murray/Pitts Dec. ¶¶ 42-46. Verizon simply has no answer for this evidence, and most of Verizon's arguments in favor of usage sensitive switching rates founder on its mistaken assumption that switching costs are largely traffic sensitive.

16. Verizon also claims that use of a flat per-port fee would create new subsidies in which low-use customers would subsidize high-use customers. Verizon at 54-55. This argument is incorrect. As the Wireline Competition Bureau found in the Virginia Arbitration Proceeding, the only relevant usage is peak period usage.[7] During off-peak periods, neither high-volume users nor low-volume users cause the ILEC to incur capacity costs; hence, no subsidy can result from off-peak usage. Traffic-sensitive cost causation thus is even a theoretical possibility only during peak periods. Verizon provides no evidence about which users—high volume or low volume—use switch resources during the peak period.

17. Any concern about peak-period usage has been allayed by real world experience. The widespread and longstanding existence of flat, per-line local services for residential and small business customers does not appear to have resulted in peak-period usage problems or issues with call blocking or the need for capacity additions. Murray/Pitts Dec. ¶¶ 53-57.

[7] *Id.*

CONCLUSION

18. Various incumbents argue that switching investment should be based largely on growth discounts and that switching costs should be recovered through traffic-sensitive rates. Neither of these arguments has merit. AT&T's proposed "life cycle" approach to switching investment includes both a new switch and switch growth equipment and appropriately determines the forward-looking switching costs over the life of the switch. AT&T's proposed flat, per-port charge recovers switching costs in a manner that most closely follows the manner in which those costs are incurred and is a competitively neutral and efficient means of recovering the small percentage of peak-period costs.

VERIFICATION PAGE

I, Terry L. Murray, declare under penalty of perjury that the foregoing is true and correct.

/s/Terry L. Murray
Terry L. Murray

January 30, 2004

VERIFICATION PAGE

I, Catherine E. Pitts, declare under penalty of perjury that the foregoing is true and correct.

/s/Catherine E. Pitts
Catherine E. Pitts

January 30, 2004