

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

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In the Matter of)

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Review of Regulatory Requirements for)
Incumbent LEC Broadband)
Telecommunications Services)

CC Docket No. 01-337

**REPLY DECLARATION OF
DENNIS W. CARLTON, HAL S. SIDER AND GUSTAVO BAMBERGER**

I. OVERVIEW AND SUMMARY OF CONCLUSIONS

1. We have been asked by Verizon to review and respond to reports filed by other parties in this matter.¹ Our response focuses on the analysis presented by Prof. Robert Willig on behalf of AT&T. Among the parties that seek continued regulation of telephone company provided broadband services, Prof. Willig's report provides the most extensive economic analysis of the issues raised in this proceeding.

2. We focus on the question whether ILECs could exercise market power in the provision of broadband services in the absence of certain regulations.² We analyze this

1. Carlton and Sider previously filed an affidavit in this proceeding which summarizes their qualifications. Bamberger is a Senior Vice-President and Senior Economist at Lexecon Inc. He received a Ph.D. from the University of Chicago Graduate School of Business and has provided expert testimony to the U.S. Senate, the U.S. Federal Regulatory Commission, the U.S. Department of Transportation, the U.S. Federal Communications Commission, the U.S. International Trade Commission, the Canadian Competition Tribunal, state regulatory agencies and federal courts.

2. This is the same way we addressed the issue of market power in our prior affidavit in this matter. To avoid any possible ambiguity, the phrase "in the absence of regulation" should be added to the subsection headings on pages 13 and 16 of our prior declaration.

question by asking whether ILECs would be expected to charge higher prices in the absence of the regulations they now face in providing these services.³ In evaluating Prof. Willig's arguments, we conclude that:

- Prof. Willig's arguments claiming that ILECs would exercise market power if regulations were lifted ignore the fact that the elimination of regulation would provide incentives for ILECs to invest in new services and expand deployment of broadband services. As a result, elimination of regulation would be expected to enhance, not reduce, consumer welfare.
- Prof. Willig incorrectly claims that the provision of broadband services is insufficiently constrained by competition today so that elimination of regulation would be expected to result in higher prices. In support, he cites increases in the price of ADSL services in 2001, which he claims resulted from the bankruptcy or shut down of certain competitive DSL providers. Prof. Willig's argument fails for two reasons:
 - First, Professor Willig mischaracterizes changes in the price of residential broadband services in 2001. In contrast to his claim, available data indicate that cable modem prices typically increased more than ADSL prices.
 - Second, available evidence indicates that ADSL price increases in 2001 were not, as Prof. Willig claims, the result of the failure of certain competitive DSL providers. These firms accounted for a very small share of all mass-market broadband services, which includes cable modem services. Therefore, it is wrong to think of competitive DSL providers as providing significant constraints on the pricing of ILECs' ADSL services.

3. The current proceeding addresses ILECs' tariffing and related regulatory requirements that would be eliminated if ILECs are declared not to be "dominant" providers of broadband services. However, the evidence we present also supports elimination of other regulations faced by ILECs in providing broadband services, including line-sharing and resale requirements.

- Prof. Willig incorrectly claims that ILECs have an incentive to restrict DSL deployment in order to protect revenue from second phone lines used to access narrowband Internet access services. Prof. Willig's conclusion is based on a flawed model of the tradeoff between revenue earned by ILECs from DSL services and second phone lines. Specifically, restricting DSL deployment would not prevent the loss of revenue from second phone lines but would only accelerate the growth of cable modem services.
- Prof. Willig ignores market realities in claiming that the elimination of regulation would enable ILECs to raise price above current levels to business customers of mass-market services. Mass-market broadband services for business customers include symmetric services delivered through DSL and fixed wireless. There are a variety of competing technologies that might be used to provide such services, but it is not yet clear that providing these services is economically viable. If not, then it makes little sense to claim that ILECs would have market power in the sense that elimination of regulation would result in higher prices. If they are viable, then Prof. Willig provides no basis to conclude that the elimination of regulation would enable ILECs to raise price, given that competitive DSL providers or other technologies – such as fixed wireless technology, which even Prof. Willig describes as “promising” – could constrain price.
- Prof. Willig's claim that ILECs engage in a “price squeeze” that prevents other firms from providing local frame relay and ATM services is based on an unsubstantiated analysis by AT&T. Verizon's own analysis contradicts AT&T's claims. In addition, Prof. Willig provides no sensible explanation for why ILECs would engage in a price squeeze which necessarily would have the effect of lowering their profits.
- It is appropriate for the FCC to analyze certain issues relating to ILEC market power on a national basis. The competitive characteristics of local broadband markets are

sufficiently similar that it is appropriate (and not misleading) to analyze these issues on a national basis for the purpose of setting a national policy.

II. PROF. WILLIG INCORRECTLY CLAIMS THAT MASS-MARKET BROADBAND PRICES WOULD RISE IN THE ABSENCE OF REGULATION

A. Introduction

3. As we showed in our initial declaration, mass-market broadband services sold to residential and small business customers – including ADSL, cable modem, satellite and fixed wireless service – are close substitutes in demand. For example, ADSL and cable modem services provide similar bandwidth and are actively marketed against each other. Furthermore, consumer surveys and analysts have found that consumers do not distinguish between the different technologies. Indeed, Prof. Willig acknowledges that it is “beyond dispute” that ADSL and cable modem are in the same market. (Willig ¶135)

4. With the exception of DSL, none of the technologies used to provide mass-market broadband services require access to ILECs’ networks. Indeed, the majority of consumers of mass-market broadband services obtain services that are not provided through ILEC networks. As of June 2001, for example, ADSL accounted for only 32 percent of residential and small business high-speed lines.⁴ Cable modem services accounted for almost all of the remaining mass-market broadband services provided to residential and small business consumers. Furthermore, cable modem services continue to add subscribers faster than DSL – in 2001, cable modem services accounted for 62 percent of all new residential broadband subscribers.⁵

5. Cable modem services do not appear to face capacity constraints, so there is no bar to customers switching to such services in response to an attempt by ILECs to raise ADSL

4. FCC, 3rd Report on the Deployment of Advanced Telecommunications (“3rd Report”), FCC 02-33, CC Docket 98-145, February 6, 2002, Table 3. High-speed lines provide bandwidth of over 200 Kbps in at least one direction.

5. <http://www.cabledatacomnews.com/cm/cmic16.html>

prices. In addition, satellite and fixed wireless alternatives are available, and Prof. Willig concedes that these alternatives are “promising.” (Willig, footnote 8)

6. Notwithstanding this evidence, Prof. Willig claims that eliminating broadband regulations will harm consumers. As we explain in this section of our reply, Prof. Willig’s analysis is flawed.

B. Prof. Willig’s Analysis Ignores the Detrimental Effect of Regulation on ILEC Investment in Broadband Services

7. In Prof. Willig’s view, elimination of regulation would enable ILECs to exercise market power, restrict the output of broadband services and raise price. Prof. Willig ignores the fact that elimination of these regulations would have a positive effect on ILECs’ incentives to invest in new services and to extend broadband services to new customers.

8. As Carlton has previously testified before the FCC (with Kenneth Arrow and Gary Becker), current regulations faced by ILECs deter investment by creating a disincentive for ILECs to provide broadband services. For example, regulations that require ILECs to share local loops at a price below the level that would prevail in an unregulated market or to provide service at cost-based tariffed rates may discourage investment by ILECs even if they are more efficient providers of DSL services than other entrants. At the same time, these regulations encourage investment by inefficient DSL providers.⁶

9. Thus, the elimination of these types of regulations would be expected to result in an expansion of output, the opposite of what Prof. Willig contends. The elimination of regulatory restrictions is especially likely to expand output in emerging technologies, such as broadband, that are risky and require substantial investment. Current regulations require ILECs to share with entrants the results of their successful investments in their network and services at regulated, cost-based rates. However, entrants do not share in the costs of ILECs’ unsuccessful

6. Declaration of Kenneth J. Arrow, Gary S. Becker and Dennis W. Carlton in the matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, GEN Docket No. 00-195.

investments. Positive economic returns on successful projects are necessary for a firm to sustain its operations since not all investment projects are successful. By denying ILECs a portion of these returns, ILECs' incentives to invest in their network and to develop new services based on their network are adversely affected, even if the regulated prices accurately reflect the "cost" of providing the successful services or network elements.

10. As Jerry Hausman and Gregory Sidak explain:

Regulatory use of cost-based rates (such as TELRIC) creates disincentives for new investment and for innovation in telecommunications. If the new investment succeeds, the CLEC can purchase the ILEC's unbundled element at cost, as set by TELRIC. If the new investment fails, the CLEC does not bear any of the cost, but the ILEC's shareholders bear the cost of the unsuccessful investment. Thus, the regulators force the incumbent to provide CLECs a free option on its investment.... [T]he Commission's grant of a free option to the CLECs diminishes the expected return of an ILEC's investment by the value of the option given the CLEC. ...Even if such an option is never exercised, it nonetheless represents for the CLEC a thing of considerable value, procured for the CLEC's advantage by the government through involuntary exchange. The result is a level of investment and innovation by the ILEC that falls below the economically efficient level.⁷

11. ILECs' incentives to invest are further diminished if regulators set rates for services or network elements that are below the true costs faced by ILECs. The regulators' task in establishing the appropriate costs is greatly complicated by the nascent nature of the new technology. In particular, broadband Internet access incorporates a variety of economic functions such as transport and Internet connection (ISP services). The provision of broadband Internet services requires coordination between these various vertical stages of production and between various types of network equipment. Regulatory requirements that ILECs offer broadband Internet access services (or the underlying network elements) on a wholesale basis in turn require coordination between equipment used by the entrant and incumbent.

12. Establishing the appropriate regulated prices is difficult under the best of circumstances. However, the nascent nature of the new technology is likely to exacerbate this problem. Given evolving DSL technology and the lack of historical information, regulators are

7. J. Hausman and G. Sidak, "A Consumer-Welfare Approach to the Mandatory Unbundling of Telecommunications Networks," 109 Yale Law Journal 417 (December 1999), p. 458.

unlikely to have sufficient information to establish the appropriate prices for these services. The appropriate prices, for example, would need to reflect ILECs' costs of coordinating the interworking of equipment used by entrants and incumbents, including coordination of testing, installation and repair functions. In addition, the appropriate prices would reflect the costs of developing and maintaining operations and support systems used by entrants for ordering, provisioning and maintenance relating to ILEC-provided services.

13. The FCC elsewhere acknowledges that regulation can adversely affect investment by ILECs in new services, but claims that investment in DSL services by ILECs will occur in any event:

We acknowledge that the incumbent LEC argument that unbundling may adversely affect innovation is consistent with economic theory, but events in the marketplace suggest that other factors may be driving incumbent LECs to invest in xDSL technologies, notwithstanding the economic theory.⁸

14. The appropriate question, however, is not simply whether or not DSL investment will occur. Instead, consumer welfare depends on when such investment will occur, how widely broadband Internet access services will be offered, and whether ILECs will continue to make investments needed to upgrade these services over time. Delays in the introduction and expansion of new services can result in substantial losses in consumer welfare.

C. Prof. Willig Incorrectly Claims that 2001 Price Increases Provide Evidence that ILECs Could Raise ADSL Prices in the Absence of Regulation

15. Prof. Willig claims that ILECs were able to raise price in 2001 because “many of the competitive DSL carriers shut down or went bankrupt.” (Willig, ¶23) He argues that this provides evidence that competition from cable modem services alone does not constrain ADSL pricing which, in turn, implies that elimination of regulation would be expected to result in higher prices.

8. FCC, Third Report and Order and Further Notice of Proposed Rulemaking in the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 (“UNE Order on Remand”), 15 FCC Rcd 3696, November 9, 1999, ¶315.

16. Prof. Willig's argument fails on two fronts. First, Prof. Willig mischaracterizes the relative prices of DSL and cable modem services as well as changes in the price of these services in 2001. Second, Prof. Willig incorrectly attributes changes in prices to failure of certain competitive DSL providers.

1. Prof. Willig Mischaracterizes Mass-market Broadband Price Increases in 2001

17. Prof. Willig incorrectly claims that prices of DSL and cable modem services were "at parity" at the beginning of 2001 and that "DSL price increases [in 2001] were not generally matched by the cable companies."

- In fact, a study cited by Prof. Willig to support his claim shows instead that ADSL prices were slightly higher than cable modem prices at the beginning of 2001 and that the difference in the prices of these services narrowed during 2001 due to larger price increases for cable modem services compared to ADSL services.⁹ The study, by ARS, Inc., notes that at the beginning of 2001, the average price of ADSL service was higher than that of cable modem service. The study also shows that "[c]able broadband Internet service prices rose 12 percent in 2001..." while "[b]asic ADSL ... monthly prices increased 10 percent over the same time period."
- In describing changes in the price of ADSL and cable modem services in 2001, Prof. Willig fails to mention AT&T Broadband's decision to increase the monthly price of its basic offering from \$39.95 to \$45.95 in June 2001.¹⁰

18. As discussed below, the actual price changes in residential broadband prices in 2001 are inconsistent with Prof. Willig's suggestion that regulation, which protects "intramodal" competition from non-ILEC providers of DSL services, is necessary to constrain ADSL pricing.

9. ARS Analysis Releases, "ARS, Inc. Study Finds Consumer Broadband Prices Spiked in 2001," January 17, 2002. Prof. Willig cites data from this ARS study at ¶105 and footnote 111 of his report.

10. T. Spring, "Verizon Joins Broadband Price Hikes Parade," PC World.com, May 2, 2001.

2. Prof. Willig Incorrectly Attributes Price Increases to the Failure of Competitive Providers of DSL Services

19. Available evidence indicates that increases in ADSL prices in 2001 highlighted by Prof. Willig are not due to the failure of competitive DSL providers, as he claims. Indeed, available data indicate that even if all CLEC providers of DSL services were to exit the market as the result of the elimination of broadband regulation, ADSL prices would not be expected to increase. There are several reasons for this.

20. First, competitive DSL providers have not been successful providers of ADSL services and thus it is unlikely that their presence had a significant effect on the price of these services. Competitive DSL providers – including Covad and (formerly) Rhythms and Northpoint – served few ADSL customers. For example, competitive DSL providers together accounted for less than two percent of total ADSL and cable modem broadband subscribers in the fourth quarter of 2001.¹¹ In addition, competitive DSL providers have focused on business customers who demand symmetric services rather than residential customers.

21. Second, Prof. Willig's conclusion that ADSL price increases in 2001 were the result of failures by competitive DSL providers is also contradicted by Verizon's decision to lower the price of higher-bandwidth ADSL services at the time it raised rates on its standard service offering.¹² These Verizon services provide bandwidth that is more similar to that provided through SDSL services offered by competitive DSL providers than the bandwidth provided through ADSL services.

22. Third, the timing of the ILEC price increases is inconsistent with Prof. Willig's claim that they were a response to the failures of competitive DSL providers. Verizon increased its ADSL prices in May 2001, but Covad, the largest competitive DSL provider, and Rhythms did not file for bankruptcy until August 2001. Northpoint, another CLEC provider of DSL services,

11. Based on TeleChoice deployment figures, February 11, 2002. See also, www.xdsl.com/content/resources/deployment_info.asp and <http://cabledatcomnews.com/cm/cmic/cm16.html>.

declared bankruptcy in January 2001, months before the Verizon price increase. The history of the DSL price increases and bankruptcies of competitive DSL providers in 2001 is summarized in Attachment 1. In evaluating this price history, it is also important to note that the \$39.95 price that prevailed prior to the 2001 price increases had only been in effect since mid-2000. More specifically, Verizon (then Bell Atlantic) priced basic ADSL services at \$49.95 from March 1999 until July 2000, when it lowered the price to \$39.95. This rate was in effect for only nine months when Verizon raised it back to \$49.95 in May 2001.

23. This history suggests that ADSL price changes over this period do not, as Prof. Willig claims, reflect the exercise of market power resulting from the exit of competitive DSL providers. Instead, the history likely reflects suppliers' efforts to establish the appropriate price for a new service, a process which appears to be ongoing. One analyst noted, "[b]roadband is a new segment, and we will likely see the price model fluctuate over the next few years."¹³ In addition, cable modem service providers have announced plans to introduce "tiered" pricing, with consumers paying more for services that provide greater bandwidth and we understand that Verizon is considering introducing "tiered" pricing in the near future.¹⁴

24. In sum, available data indicate that increases in the price of ADSL in 2001 were not attributable to the failure of certain competitive DSL providers, as suggested by Prof. Willig. These firms accounted for a small share of residential broadband services and focused on serving business customers, not on providing ADSL service. As a result, the presence or absence of these firms would not be expected to affect the price that ILECs could charge for ADSL services. Even if elimination of regulation on ILEC provision of broadband services would

(...continued)

12. See description of Verizon price increase in May 2001 in Attachment 1.

13. M. Kannell, "BellSouth Increases Its Rates for High-Speed Service," Atlanta Journal and Constitution, May 7, 2001, quoting analyst Jeff Kagan.

14. T. Kary, "Cable companies move to tiered pricing," CNET News.com (<http://news.com.com/2100-1033-885299.html>)

result in the exit of the remaining competitive providers of DSL services, it is unlikely that ADSL prices would be affected.

D. Prof. Willig Incorrectly Claims that ILECs Have an Incentive to Restrict DSL in Order to Protect Revenue from Second Phone Lines.

25. Prof. Willig argues that ILECs have the incentive and ability to restrict output and raise ADSL prices in order to preserve revenue from second phone lines used by consumers to access narrowband Internet access services. According to Prof. Willig, ILECs find it more profitable to sell a second phone line to mass-market customers for narrowband Internet access than to sell ADSL services and thus have an incentive to restrict broadband deployment in order to preserve revenue from second phone lines that will be lost as customers adopt broadband services. (Willig, ¶84)

26. Prof. Willig attempts to illustrate his claim with a numerical example:

Let β represent the percentage of consumers who regard an additional POTS line as a substitute for broadband. For illustrative purposes, let us assume that β is 35%. . . . This means that for each 100 customers in SBC's service territory who adopt broadband, SBC will lose 35 access lines. According to Crandall and Sidak, SBC has about a 32% broadband share, so assume it will sell DSL to about 32 of the 100 customers adopting broadband. Thus, in this illustration, SBC gains 32 DSL customers but loses 35 access lines.¹⁵

Based on this reasoning Prof. Willig concludes that “[i]ncreasing broadband demand may well reduce RBOC profits.” (Willig, ¶85, emphasis in original)

27. This example, however, incorrectly characterizes the “tradeoff” faced by ILECs in deciding whether to deploy broadband services. More specifically, none of ILECs' access line losses may be avoidable and, if so, the ILEC faces no “tradeoff” between its DSL and second line phone revenue. Prof. Willig's analysis completely ignores the fact that if an ILEC restricted deployment or raised the price of ADSL, potential ADSL customers that it otherwise would have gained would be likely to purchase cable modem or other broadband services. Following Prof.

15. Willig, ¶83.

Willig's example, the ILEC would be expected to lose 35 access lines for every 100 customers that adopted broadband service whether or not it offered ADSL services. Under these circumstances, there is no reason to restrict ADSL deployment and ILECs would find it profitable to offer ADSL as long as this service was profitable. Under these circumstances, an ILEC's decision to deploy ADSL does not depend on the loss of second phone lines since this is outside of the ILEC's control given the widespread availability of cable modem services or other broadband services.¹⁶

28. In sum, there is no merit to Prof. Willig's model which he claims supports the proposition that ILECs have an incentive to restrict broadband deployment.

E. Prof. Willig's Claim That Elimination of Regulations Will Enable ILECs to Raise Prices to Business Customers Of Mass-Market Services Ignores Market Realities

29. Prof. Willig also claims that elimination of regulations will enable ILECs to raise the prices of mass-market broadband services to business customers. He states that ILECs would be able to raise price for mass-market broadband service to business customers in the absence of regulation customers because "ILECs face little competition at all from cable in the business arena" (Willig ¶90) and because "many of the CLECs offering DSL service have recently been fading from the scene." (Willig, ¶92)

30. The mass-market broadband services purchased by business customers discussed by Prof. Willig include various distinct services. Some business customers seek

16. Moreover, Prof. Willig's example misrepresents the "tradeoff" faced by ILECs from introducing DSL, even if no DSL customers otherwise would have chosen cable modem services. Under this extreme assumption, and following Prof. Willig's example, if introduction of DSL resulted in the gain of 32 DSL customers, it also would have resulted in the loss of only 11 access lines (35 percent of the total). Thus, the relevant tradeoff faced by ILECs is the margin earned on 32 new DSL customers versus the reduction in margin from the 11 second phone lines lost as the result of the introduction of DSL. Prof. Willig, however, incorrectly suggests that the relevant tradeoff is one in which the ILEC "gains 32 DSL customers but loses 35 access line." (Willig, ¶83) Thus, Prof. Willig greatly exaggerates concerns that "[i]ncreasing broadband demand may well reduce RBOC profit." Again, if all potential DSL customers would choose cable modem services in the absence of DSL, then the ILEC faces no tradeoff since the loss in access lines will occur anyway.

higher bandwidth and reliability than provided by ADSL services, which are purchased primarily by residential customers, but require less bandwidth and reliability than broadband services purchased by larger business customers.¹⁷ Competitive providers of DSL services, including Covad, Northpoint, and Rhythms, primarily have offered SDSL services to business customers while firms such as Teligent, Winstar, and Sprint have focused on providing symmetric services to business customers using fixed wireless technology. Cable companies and satellite providers also have introduced “business class” services that provide broadband services with higher bandwidth and greater reliability than ADSL and cable modem services marketed primarily to residential customers.¹⁸

31. Prof. Willig includes in his market definition of mass-market broadband services a diverse set of services that vary widely with respect to bandwidth, reliability and price. Although one could dispute his inclusion of certain services, there is no need to precisely define the scope of these markets in these proceedings.¹⁹ We have already explained why ADSL prices would not be expected to rise in the absence of regulation. We now focus on the prices of other services provided to what Prof. Willig calls mass-market business customers.

32. Several firms offering symmetric services to business customers, including Teligent, Winstar, Covad, Northpoint and Rhythms have declared bankruptcy, although some

17. R. Adams et. al., CIBC World Markets Corp., Investex Report No. 2067977, Metalink Ltd., Company report, Feb. 4, 2000, p. 3.

18. See, generally, Yankee Group, “Cable MSOs: Ready to Take Off in the Small and Medium Business Market,” March 2000, and Hughes Network Systems, http://www.hns.com/default.asp?CurrentPath=direcway/for_small_business/home.htm.

19. In testimony before the Commission in October 2000, Carlton and Sider found on the basis of circumstances prevailing at that time stated that “NorthPoint’s SDSL service does not compete to any significant extent with Verizon’s T-1 and fractional T-1 services ...” and that “available evidence shows that Northpoint’s SDSL services do not compete to any significant extent with Verizon’s ADSL services ...” (Reply Declaration of Dennis W. Carlton and Hal S. Sider in the matter of Joint Application of Northpoint Communications and Verizon Communications for Authority to Transfer Control of Blanket Authorization to Provide Domestic Interstate Telecommunications Services as a Non-Dominant Carrier, Docket No. 00-156, October 17, 2000.) However, we recognize the rapidly changing nature of technology since 2000 and are aware that if circumstances significantly change, market boundaries may also.

continue to offer service. To date, Verizon has not introduced SDSL service but we understand that it may do so in the future. Thus, it is not even clear whether such services are economically viable today. If these services are not viable, then it makes little sense to consider ILECs as having the ability to raise the price of these services as a result of the elimination of regulations. Moreover, if regulation deters or delays ILECs from introducing such services, for example by classifying them as dominant before making a single sale, such regulation would not protect consumers but instead would have a potentially large adverse effect on consumer welfare. Specifically, it makes little sense to conclude that elimination of regulations would enable ILECs to raise price in the absence of regulation when ILECs such as Verizon do not even offer such a service today.

33. If the sale of symmetric services tailored to certain business customers is viable, then Prof. Willig provides no basis to conclude that the elimination of regulation would enable ILECs to raise price, given that competitive DSL providers or other technologies – such as fixed wireless technology, which even Prof. Willig describes as “promising” – could constrain price. It should be noted that elimination of regulations ILECs now face in providing DSL, including line-sharing obligations, tariffing requirements, and resale obligation, have no effect on the ability of competitive DSL providers to purchase “unbundled loops,” which are used to provide SDSL services.

III. PROF. WILLIG’S CONCLUSION THAT ILECS EXERCISE MARKET POWER IN THE PROVISION OF BROADBAND SERVICE TO LARGE BUSINESSES IS BASED ON FLAWED ECONOMIC REASONING

34. We concluded in our prior declaration that broadband services for larger business customers, including frame relay and ATM services, constitute a market that is distinct from “mass-market” services. As we explained, these services are purchased almost exclusively by larger business and government customers and these services are not demand-side or supply-side substitutes for broadband services such as cable modem services and ADSL, which are sold primarily to residential customers. We also concluded that elimination of

regulations faced by ILECs in the provision of broadband services for larger business customers would not be expected to result in their ability to raise price. This conclusion is based on the fact that ILECs account for a relatively small share of these services and face competition from large national carriers (including AT&T, MCI WorldCom and Sprint) that have the ability to readily expand capacity.

35. While Prof. Willig agrees that frame relay and ATM services are in the same product market (§52), he argues that given the lack of competition, ILECs could exercise market power in the provision of local frame relay and ATM services if existing regulations are eliminated. Prof. Willig claims that ILECs are able to achieve such high market shares because they control “bottleneck” access facilities and, as a result, “the vast majority of ATM and frame relay services must travel over ILEC local loops and interoffice transport.” (§59). He further argues that ILECs can, and do, engage in “price squeezes” by charging competing suppliers of frame relay and ATM services more for access than ILECs charge for frame relay and ATM services (including both access and transport) sold to end users.

36. Prof. Willig’s arguments, however, are without merit. His claim that ILECs engage in price squeezes with respect to the provision of local (intraLATA) frame relay and ATM services is based entirely on the Declaration of Alan Benway of AT&T. Mr. Benway’s submission, however, provides virtually no explanation of his analysis and does not document the assumptions regarding network configuration, distance, and other factors that underlie his conclusion. Mr. Benway does not even report the markets in which he purports to find a price squeeze. Verizon has attempted to reproduce Mr. Benway’s analysis by comparing Verizon’s tariff rates for special access services and frame relay services for a variety of “typical” network configurations. We understand that, in each case, the tariff rate for Verizon’s frame relay price

exceeds the tariff rate for special access. As described in Verizon's Reply Comments, Verizon's internal analysis appears to contradict the claims made by Prof. Willig and Mr. Benway.

37. In addition, Prof. Willig provides no sensible explanation for why ILECs would engage in a price squeeze relating to frame relay and ATM services. ILECs have a choice of selling intraLATA frame relay or ATM services (which include access and local transport components) or, alternatively, selling access services to firms such as AT&T and WorldCom for use as inputs in their provision of local frame relay and ATM services to customers who desire intraLATA services. ILECs would have no apparent incentive to set a price for local frame relay and ATM services that is below the price they could receive by selling the access component of these services to AT&T, WorldCom or other service providers. Under Prof. Willig's price squeeze scenario, ILECs would earn higher profits by selling access services alone instead of providing frame relay and ATM services to customers.²⁰

38. While Prof. Willig suggests that ILECs might engage in such activity in order to "induce AT&T and other CLECs to scale back their offerings thereby providing less of a competitive threat to the incumbent, or to exit the market entirely," such an explanation is not credible. (Willig, ¶19) Frame relay and ATM services provided by RBOCs and CLECs account for less than 18 percent of revenue earned nationally from these services.²¹ It is highly unlikely that by engaging in a "price squeeze" with respect to such services, ILECs could hope to induce firms such as AT&T, MCI WorldCom and Sprint to scale back their broadband offerings to large business customers or exit from the market. Each of these firms has extensive national and

20. Even if regulation set rates charged for special access at rates that are "too high" then ILECs still would have no incentive to price in the manner suggested by Prof. Willig. Exclusion of rivals through such a price squeeze under these circumstances again would again lower profits.

21. Ron Kaplan, IDC, "U.S. Packet/Cell-Based Services Market Forecast and Analysis, 2000-2005," March 2001.

international frame relay and ATM networks already established and large bases of established customers. Thus, it is highly unlikely that a price squeeze would drive rivals from the market and enable ILECs to recoup the profits lost from the price squeeze through higher prices in the future.

39. Prof. Willig also asserts that ILECs control “bottleneck local facilities necessary to provide [ATM and frame relay] services.” (Willig 59) We understand, however, that the FCC has previously issued an order that specifies when local conditions are sufficiently competitive that ILECs have the flexibility to deviate from tariff pricing for special access services. We understand that pricing flexibility under this order can involve either complete deregulation or partial deregulation, both of which require a showing of local competition based on fiber-based collocation. We understand that Verizon now has full price deregulation in areas that account for 53 percent of their special access revenues and either full or partial deregulation in areas that account for 75 percent of Verizon special access revenue. The FCC’s evaluation of competitive circumstances in these areas is inconsistent with Prof. Willig’s blanket claim that ILEC’s control “bottleneck local facilities” used to provide broadband services to large business customers.

IV. IT IS APPROPRIATE TO ASSESS LEC BROADBAND “DOMINANCE” AT THE NATIONAL GEOGRAPHIC LEVEL

40. Prof. Willig claims that “the competitive constraints on the ILECs’ various broadband offerings do vary widely across the relevant local and point-to-point markets ...” and as a result market power must be analyzed on a local basis. (Willig, ¶10). However, the available evidence indicates that competitive characteristics of local broadband markets are sufficiently similar so that it is appropriate to analyze dominance at the national level in order to set a national policy. As the FCC has explained in other proceedings,

[w]e recognize, however, that assessing market power in each individual point-to-point market would be administratively impractical and inefficient. . . . We conclude that when a group of point-to-point markets exhibit sufficiently similar competitive characteristics (i.e., market structure), we will examine that group of markets using aggregate data that encompasses all point-to-point markets in the relevant area, rather than examine each individual point-to-point market separately.²²

41. Cable modem service is generally available in areas where DSL service is available. For example, J.P. Morgan/McKinsey & Company estimate that over 75 percent of homes where DSL was available had cable modem as an alternative as of the first quarter of 2000, and that this percentage is likely to rise substantially as networks are more fully deployed. For example, they estimate that by 2005, more than 98 percent of U.S. homes with access to DSL also will have access to cable modem services.²³

42. We understand that Verizon's retail ADSL prices typically do not vary across local areas, which indicates that competitive broadband conditions do not vary substantially across different geographic areas.²⁴ In contrast, the FCC and numerous studies have concluded that prices for cable programming services depend on local competitive conditions (e.g., the presence of an "overbuilder" cable supplier), which indicates that local competitive conditions affect local cable programming prices.²⁵ We note that Prof. Willig has recently submitted testimony to the FCC in which he argues that a proposed merger of two national suppliers of direct broadcast satellite ("DBS") – which he claims competes with cable programming service – should be evaluated on a national, not a local, basis.²⁶

22. FCC, Regulatory Treatment of LEC Provision of Interexchange Services, FCC 97-142, April 18, 1997, ¶166.

23. J.P. Morgan/McKinsey & Company, "Industry Analysis: Broadband 2001," April 2, 2001, pp.39,40,43,52.

24. We understand that retail prices of ILECs' bundled offering of ADSL transport and ISP services are not subject to tariff. Thus, Verizon is free to charge different retail prices for these services in different areas if chooses to do so.

25. See, for example, the FCC's 2001 Report on Cable Industry Prices, FCC 02-107, April 4, 2002.

26. Declaration of Robert Willig on behalf of Echostar, General Motors and Hughes Electronics, FCC CC Docket No. 01-348, ¶18.

43. Because the available evidence shows that variations in local competitive conditions for DSL typically are not substantial, we conclude that the FCC should analyze dominance issues in this matter on a national level. That is, in light of the absence of general market power concerns arising from their elimination, regulations should be retained only in the limited areas – if any – where local competitive concerns arise. The elimination of rules in areas where no market power concern will arise should not be delayed due to possible competitive problems in a few remaining areas. By placing the burden of proof on intervenors to identify local markets where competitive problems may arise, the interests of consumers and of administrative efficiency are served.

Attachment 1

Chronology of Residential Broadband Price Changes and Other Events

- 6/98 Bell Atlantic announces ADSL service at \$69.95.²⁷
- 10/98 Bell Atlantic lowers price of ADSL service to \$59.95.²⁸
- 4/99 Bell Atlantic cuts basic ADSL price to \$49.95.²⁹
- 7/99 GTE introduces new ADSL service at \$49.95.³⁰
- 7/00 Verizon reduces ADSL price to \$39.95 in former Bell Atlantic areas.³¹
- 9/00 Verizon reduces ADSL price to \$39.95 in former GTE areas.³²
- 1/01 NorthPoint files for bankruptcy.³³
- 2/01 SBC raises ADSL price from \$39.95 to \$49.95 per month.³⁴ At the same time, SBC removed its requirement that customers accept a one-year contract.³⁵
- 5/01 Verizon raises DSL price from \$39.95 to \$49.95. Verizon maintains an unadvertised \$39.95 service with a \$200 start-up fee. Prices of higher speed services are lowered, with the monthly price of 90 Kbps/1.6 Mbps service reduced from \$89.95 to \$59.95 (with upload speed increased to 128 Kbps); the monthly price of 384 Kbps symmetric service using ADSL reduced from \$92.95 to \$69.95.³⁶
- Time Warner raises its prices in new service areas to \$44.95 per month while retaining \$39.95 per month price in existing service areas.³⁷
- 6/01 AT&T raised cable modem price from \$39.95 to \$45.95.³⁸

27. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=36837>

28. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=36837>

29. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=36258>

30. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=25748>

31. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=39908>

32. <http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=42428>

33. D. Kelsey, "AT&T Buy of Northpoint Unhooks DSL Subscribers," March 25, 2001, Newsbytes. <http://www.newsbytes.com/news/01/163600.html>

34. Cabledatcom News, "Broadband Providers Boost Prices," June 1, 2001. <http://www.cabledatcomnews.com/jun01/jun01-5.html>

35. T. Spring, "Verizon Joins Broadband Price Hike Parade," PCWorld.com, May 2, 2001. <http://www.pcworld.com/resource/printable/article/0,aid,48945,00.asp>

36. *Ibid.*

37. *Ibid.*

38. *Ibid.*

- 8/1/01 Rhythms files for bankruptcy protection while continuing to offer services.^{39,40}
- 8/15/01 Covad files for bankruptcy protection.⁴¹
- 9/25/01 WorldCom receives approval to purchase Rhythms' assets in 31 of their markets for \$31 million, receiving assets in 700 central offices.^{42, 43} Rhythms was focusing on 40 markets.⁴⁴
- 12/20/01 Covad exits bankruptcy.⁴⁵

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39. Rhythms press release, "Rhythms Netconnections Files for Chapter 11 Protection," August 2, 2001. <http://www.rhythms.com/news/pr/ch11.cfm>
40. Rhythms press release, "Rhythms Continues Network Operations," September 12, 2001. http://www.rhythms.com/news/pr/bulletin_board.cfm
41. Covad press release, "Covad submits Chapter 11 reorganization petition to eliminate \$1.4 billion debt; DSL network and customers remain unaffected," August 15, 2001. http://www.covad.com/companyinfo/pressreleases/pr_2001/081501_press.shtml
42. WorldCom Press Release, "WorldCom Gains Approval to Acquire Key Rhythms DSL Assets," September 26, 2001. http://www.worldcom.com/about_the_company/press_releases/display.phtml?cr/20010926-2
43. WorldCom Press Release, "WorldCom Closes Rhythms Transaction," December 5, 2001. http://www.worldcom.com/about_the_company/press_releases/display.phtml?cr/20011205-2
44. Rhythms press release, "Rhythms Netconnections Announces First Quarter Results," May 2, 2001. http://www.rhythms.com/news/pr/qtr1_01results.cfm
45. Covad press release, "Covad closes funding from SBC as it exits from bankruptcy and eliminates \$1.4 billion in debt," December 20, 2001. http://www.covad.com/companyinfo/pressreleases/pr_2001/122001_press.shtml

April 22, 2002

We declare under penalty of perjury that the above is true and correct to the best of our knowledge and belief.

/s/ Dennis Carlton

Dennis Carlton

/s/ Hal Sider

Hal Sider

/s/ Gustavo Bamberger

Gustavo Bamberger