Attachment A

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

In the Matter of	)	
	)	
Review of Regulatory Requirements for	)	CC Docket No. 01-337
Incumbent LEC Broadband	)	
Telecommunications Services	)	

DECLARATION OF ROBERT WILLIG

I. QUALIFICATIONS

1. I am Professor of Economics and Public Affairs at the Woodrow Wilson School and the Economics Department of Princeton University, a position I have held since 1978. Before that, I was Supervisor in the Economics Research Department of Bell Laboratories. My teaching and research have specialized in the fields of industrial organization, government-business relations and welfare theory.

2. I served as Deputy Assistant Attorney General of Economics in the Antitrust Division of the Department of Justice from 1989 to 1991. I also served on the Defense Science Board task force on the antitrust aspects of defense industry consolidation and on the Governor of New Jersey's task force on the market pricing of electricity.

3. I am the author of *Welfare Analysis of Policies Affecting Prices and Products*; *Contestable Markets and the Theory of Industry Structure* (with W. Baumol and J. Panzar), and numerous articles, including "Merger Analysis, IO theory, and Merger Guidelines." I am also a co-editor of *The Handbook of Industrial Organization*, and have served on the editorial boards of

the *American Economic Review*, the *Journal of Industrial Economics* and the MIT Press Series on regulation. I am an elected Fellow of the Econometric Society and an associate of The Center for International Studies.

4. I have been active in both theoretical and applied analysis of telecommunications issues. Since leaving Bell Laboratories, I have been a consultant to AT&T, Bell Atlantic, Telstra and New Zealand Telecom, and have testified before the U.S. Congress, the Federal Communications Commission, and the public utility commissions of about a dozen states. I have been on government and privately-supported missions involving telecommunications throughout South America, Canada, Europe, and Asia. I have written and testified on such subjects within telecommunications as the scope of competition, end-user service pricing and costing, unbundled access arrangements and pricing, the design of regulation and methodologies for assessing what activities should be subject to regulation, directory services, bypass arrangements, and network externalities and universal service. On other issues, I have worked as a consultant with the FTC, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, the World Bank and various private clients.

II. SUMMARY AND CONCLUSIONS

5. I understand that the purpose of this docket is to determine whether the "broadband" telecommunications services provided by incumbent local exhange carriers ("ILECs") should be exempted from the "dominant carrier" tariffing, cost support, and related rate regulations that the Federal Communications Commission ("FCC" or "Commission") imposes pursuant to sections 201 through 205 of the Communications Act. I understand that this proceeding does *not* address the obligations of ILECs to provide nondiscriminatory, cost-based

access to the unbundled network elements that competitors use to provide broadband and traditional voice services or to provide the special access services that remain an essential input in the provision of broadband services to larger businesses. As I have explained elsewhere and will address further in ongoing Commission proceedings, the ILECs, sometimes through conditions approved by the Commission, have evaded these latter obligations in a number of ways that substantially impede the development of competition and that warrant immediate action. For present purposes, I focus only on examining the claims that ILECs lack relevant market power that have been brought in the context of requests for exemptions from the tariffing and other dominant carrier regulations. However, the underlying market power considerations also confirm that both narrowband and broadband competition will suffer unless the ILECs are required to comply with their section 251 and other obligations to make their bottleneck facilities available to providers of competing broadband and narrowband services, and the Commission should make it clear that nothing it determines in this docket should be regarded as any basis for weakening those requirements.

6. As the *Notice* explains,[1] the Commission generally classifies as "dominant" any carrier that possesses market power that could be used to impede competition. The tariffing, cost support, and rate regulations that accompany classification as a dominant carrier are designed to reveal and discourage abuses of market power, and it is well established that where market power and incentives to abuse it exist, proper application of such dominant carrier regulations can improve social welfare. Unnecessary regulation, on the other hand – *i.e.*, regulation imposed

[1] *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Servs.*, Notice of Proposed Rulemaking, FCC 01-360, 2001 WL 1636518, ¶ 9 (Dec. 20, 2001) ("*Notice*").

in the absence of any serious risk of market power abuse – imposes social costs without corresponding benefits. It is thus important that dominance determinations reflect careful analyses of market power.

7. ILECs have long been treated as dominant carriers in recognition of their control over local loops and other "bottleneck" facilities that rivals must use to deliver competing services to consumers. As I understand the current regulatory scheme, the dominance classification of ILECs attaches to their status as carriers, so that all FCC-regulated services that they provide over their local networks are subject to dominant carrier regulation "absent a specific finding to the contrary for a particular market."[2] I believe this is the correct approach. As competition develops, there may, of course, be legitimate claims that specific regulatory requirements are unnecessary or counterproductive when applied to particular services in particular areas, but with respect to most of the services that ILECs offer over their facilities, it remains as clear today as ever that the ILECs' facilities are essential inputs to providers of competing services, and that the removal of tariffing and related requirements could therefore facilitate the abuse of market power.

8. The question of whether it continues to make sense to subject the ILECs' "broadband" services to dominant carrier regulations is nonetheless a reasonable one, for technology and marketplace conditions have certainly evolved in recent years, and ILECs do now face some "intermodal" competition – *i.e.*, competition from providers that do not rely upon the ILECs' local networks – in the provision of some broadband services to some customers in some areas. I agree with the Commission that the answer to that question, as in previous

[2] *Notice* ¶ 5.

proceedings seeking service-specific exemptions from dominant carrier regulation, must turn on a careful analysis of market power.

9. In past proceedings, such market power inquiries have been relatively straightforward. When the Commission reviewed AT&T's dominant carrier classification in 1995, for example, AT&T faced a number of established national facilities-based competitors, and there was no material geographic variation in the relevant competitive activity. And because AT&T had long ago shed its bottleneck facilities, the market power analysis could focus solely on the provision of interexchange services and the relatively simply question of whether AT&T could, by virtue of its high market share, raise prices by restricting its own output of those services. The Commission found that AT&T could not do so, principally because AT&T's facilities-based rivals had both ample spare capacity and incentives to employ it in order to prevent any restriction in total output (and thus to foil any attempt at supracompetitive pricing).

10. As the *Notice* recognizes, the market power inquiry here is necessarily far more complex. First, nationwide determinations of market power are not possible, because, unlike the situation with AT&T's long distance services in 1995, the competitive constraints on the ILECs' various broadband offerings do vary widely across the relevant local and point-to-point markets as well as across customer classes. The mass market services at issue have only recently been introduced, and as the Commission's own Section 706 Reports have recognized, although many areas are served by both DSL and cable modem service providers, 20% of the zip codes in this country are served by only one or the other. I understand, for example, that cable modem service is currently available to only about 60% of the homes passed by AT&T Broadband cable systems. Similarly, where cable modem service is available to residential consumers, it generally is not available to businesses, because cable systems generally do not extend to

business districts. There are thus both entire geographic areas and customer classes within geographic areas that may have no meaningful broadband alternative to the DSL and narrowband services that are all provided (in whole or in part) over the ILECs' bottleneck facilities. There is also wide variation in relative shares among the areas where both DSL and cable modem service are available. Nationwide, on average, cable has twice as many customers as DSL, but in California and Missouri, for example, DSL is ahead of cable.

11. Nor is a national determination of nondominance possible with respect to the broadband services provided to larger businesses. As the Commission has recognized in its special access pricing flexibility orders, the existence and extent of alternatives to the ILEC-owned high-capacity loops and transport – which have traditionally been considered essential inputs to the provision of data services to large businesses – is a local, not a national, question. Thus, the Commission cannot, consistent with sound economics, provide any "across-the-board" answer to the question whether ILEC broadband services should be subject to dominant carrier regulations.

12. Second, because the ILECs continue to control facilities that clearly remain bottlenecks and essential inputs with respect to many of the services provided over those facilities, the market power analysis needed to evaluate any ILEC request that a particular broadband offering be exempted from tariffing and related requirements must look well beyond the risk of a unilateral restriction of output – which was the focus of the AT&T nondominance inquiry. It is well established that owners of bottleneck facilities in general, and the ILECs in particular, can abuse market power in myriad ways that cut across service and market

boundaries.[3] The *Notice* recognizes, for example, the importance of assessing market power not only by reference to the retail market in which a broadband service is provided, but also by considering whether the ILEC controls any facilities that are essential inputs to competing providers of that service.[4] As detailed below, ILEC facilities remain essential inputs in the provision of many broadband services in many areas and to many customers.

13. The continued presence of bottleneck facilities over which multiple services are provided also makes it necessary to consider whether reduced dominant carrier regulation of ILEC broadband services could subvert competition in, and concededly necessary regulation of, voice and other "narrowband" services. The ILECs remain indisputably dominant as providers of the local telephone lines used to provide both voice and "narrowband" data services. No one can seriously dispute this proposition. ILECs continue to control well over 90% of the access lines needed to reach residential and small business customers; in most areas of the country, they provide all such lines.[5] Although cable-delivered telephone service holds promise, it is available in few communities today. The network element-based competition that the 1996 Act was

[3] *See, e.g.*, *In the Matter of Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area*, Second Report & Order, 12 FCC Rcd. 15,756, ¶ 83 (1997) ("*LEC Classification Order*"); *Policy & Rules Concerning Rates for Competitive Common Carrier Services & Facilities Authorizations Thereof*, First Report & Order, 85 FCC 2d 1, ¶ 10 (1980); FCC Brief for Respondents at 22, *WorldCom, Inc. v. FCC* (D.C. Cir. filed Nov. 2, 2000) (No. 00-1002) ("*FCC WorldCom Brief*").

[4] *See Notice* ¶ 28 (a carrier "may be able to raise prices by increasing its rivals' costs or by restricting its rivals' output through the carrier's control of an essential input such as access to bottleneck facilities that its rivals need to offer their services").

[5] *See Trends in Telephone Service*, Common Carrier Bureau, FCC, www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend801.pdf, Table 9-1 (August 2001); *see also* FCC, *Federal Communications Commission Releases Latest Data on Local Telephone Competition*, 2 (Feb. 27, 2002) (reporting that ILECs provide approximately 94.5% of residential and small business customer lines) ("*February 2002 Local Competition Release*").

intended to foster has been stifled by the ILECs' high prices and poor provisioning, and, in recent years, bankruptcy has been more prevalent than new entry among the firms trying to serve as competitive LECs.

14. In this environment, there are a number of ways in which ILECs might use their broadband services anticompetitively to maintain and enhance their narrowband monopolies. Given that narrowband and broadband services can be (and are) provided simultaneously over the same copper wires, there must, for example, be careful consideration whether there are economies of scope or complementarities in production or demand that could facilitate market power abuses. This is most obvious in relation to narrowband voice services. Offering both voice and DSL services over the same ILEC loop may be the best, and perhaps the only, means of profitable competitive entry in many areas. Anything that makes it easier for an ILEC artificially to raise its rivals' costs of providing DSL service over network elements – or, as in the case of an exemption from tariffing requirements, makes it more difficult to detect such anticompetitive actions – may therefore deter local voice entry and competition, at a considerable social welfare cost.

15. Any reasoned analysis of market power in connection with a request for nondominant treatment of an ILEC's DSL services would also need to consider whether the ILEC would have the incentive and ability to steer customers away from its DSL service and to its more profitable narrowband services. Regardless or whether "broadband" and narrowband constitute separate relevant antitrust markets, the two are inextricably linked. Not only do the RBOCs provide both forms of access over the same copper wires, but (from their perspective) one service cannibalizes the other. According to one estimate, during the first half of 2001,

Americans adopting broadband cancelled nearly 4 million ILEC access lines.[6] And, although broadband has its advantages, and *some* consumers have needs which can only be met by broadband, that is not true of most people considering whether to "upgrade" to higher-speed service. Accordingly, in the absence of a vigorously competitive DSL sector – and there is very little *intra*modal DSL competition today[7] – it cannot simply be assumed that an ILEC would find it unprofitable unilaterally to restrict its own DSL output (by raising its DSL price). Rather, that would depend upon how many of the customers that would have purchased the ILEC's DSL service (at the lower price) would instead buy cable modem service (where it is available) and how many would remain with (or return to) the ILEC's own narrowband service. Although that question cannot be answered in the abstract, the ILECs' quite substantial DSL price increases in 2001 suggest that they, at least, may believe that restriction in DSL output can be profitable. If that is so, then the oversight of ILEC DSL practices that is facilitated by dominant carrier regulation may be entirely appropriate for that reason among others.

16. But even with respect to an ILEC that could demonstrate that it would have no ability to abuse market power in any of these ways, there would remain one final and highly important concern: could the Commission effectively enforce the boundary between the "broadband" service to be treated as nondominant and the concededly dominant narrowband

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[6] Laurie Hilsgen, *It's All Coming Together*, The Dominion, 2002 WL 752656 (Feb. 4, 2002) (citing *Gartner DataQuest Report*).

[7] The Commission reports that ILECs provide 93% of DSL lines, and that CLECs saw their meager share *decline* from 8% in 1999 to 7% as of mid-2001. *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Third Report, FCC 02-33, ¶ 51 (Feb. 6, 2002) ("*Third Section 706 Report*").

services provided over the same wires? As explained below, the boundary between narrowband and broadband, to the extent that it can be said even today to exist in any sense meaningful to this proceeding, is becoming increasingly blurry. I understand, for example, that recent technological advances are likely to allow even "narrowband" Internet services provided over the low frequency portion of copper wires to be "always on" and to support speeds of greater than the 56 kbps that ILECs (somewhat arbitrarily) claim qualify as "broadband." And IP voice telephony, delivered over the "broadband" portion of ILEC loops, is already a reality. Thus, there may be a significant risk that a nondominance declaration with respect to a particular ILEC broadband service could quickly become a gaping loophole through which the ILEC could avoid dominant carrier regulation of other services that clearly should remain subject to dominant carrier regulations.

17. In short, the analysis of market power in this context is, of necessity, a multi-faceted analysis that examines each of the many ways in which the services in question and the underlying facilities over which they are provided could be used to impede competition in the relevant geographic areas. That does not mean that no ILEC will be able to demonstrate that an exemption is appropriate for any broadband service or any geographic area. It simply means that the issues are too complex – and the stakes too great – to reach sound conclusions on the basis of shortcuts or superficial analysis.

18. This is well illustrated by SBC's pending nondominance petition. SBC seeks an across-the-board exemption from the dominant carrier regulations for all of its broadband services – defined expansively as any service that SBC provides at a speed of 56 kbps or more – in all of the geographic areas and with respect to all of the customer classes it serves. SBC bases its petition largely upon assertions that it has relatively low national "shares" as compared to

other broadband suppliers and that it meets each of the other criteria that the Commission relied upon in finding AT&T nondominant in the provision of long distance services. For all of the reasons summarized above and discussed in more detail below, that showing, by definition, falls far short of demonstrating a lack of relevant market power. SBC has not only ignored many of the most important market power considerations, but it has misrepresented the relevant conditions in even the markets it has chosen to address. Indeed, a close examination of SBC's claims and the relevant market conditions suggests that for at least some of the services at issue, it is unlikely that any ILEC could today demonstrate the required absence of market power.

19. SBC claims that it cannot be considered dominant in the provision of broadband services to large businesses because it supplies only about 12% of such services within its region and its competitors (including AT&T, WorldCom and Sprint) "have more than enough excess capacity in their networks to prevent SBC from engaging in monopoly pricing." SBC Petition at 58. Neither of those assertions withstands scrutiny. Because of the interLATA restrictions, SBC has and the other ILECs have been prohibited from providing broadband (or other services) across LATA boundaries (although they recently gained authority to provide such services in some states). And the ILECs' share of the *intra*LATA frame relay and ATM business for which they have been allowed to compete is not 12%, but well over *90%*. Nor is it true that competitors can easily bypass the ILECs' facilities. To the contrary, notwithstanding the ubiquity and capacity of competitors' switching and interLATA transport networks, the ILECs' "last-mile" loops and high speed transport remain quintessential bottleneck facilities throughout their regions. Although there are some alternative facilities serving some customers in some areas, the incumbents' competitors unquestionably remain heavily dependent upon the ILECs' facilities. And, as detailed in the accompanying declaration of Mr. Alan Benway, the ILECs

have already demonstrated that they have both the incentive and ability to use their control over those bottleneck facilities to effect a classic anticompetitive price squeeze (as revealed by their tariffed rates). The incumbents usually charge AT&T significantly more just for access (to reach its customers' premises) than they charge their own retail customers for end-to-end frame relay and ATM service. There is no known pro-competitive justification for setting such wholesale rates (for just a portion of the service) that are higher than the retail rates (for the entire service). Here, the likely logical explanation as to why they are charging higher wholesale rates is an anti-competitive one: these wholesale rates are charged to the firms that compete with the incumbents at the retail level. The higher observed wholesale rates on the access-only component are designed to induce AT&T and the other CLECs to scale back their offerings, thereby providing less of a competitive threat to the incumbent, or to exit the market entirely. Moreover, the same market power (and incentives to abuse it) exist with respect to the *inter*LATA frame relay and ATM services for which the incumbents' loops and transport are also essential inputs, and there is thus no meaningful sense in which the ILECs could be deemed unable to abuse market power in the provision of broadband services to large businesses.

20. SBC makes a similar claim with respect to mass market broadband services, asserting that it supplies less than a third of such services within its region and that it is losing ground to its cable competitors. Again, SBC paints with far too broad a brush and ignores both obvious geographic and customer class differences and important market power considerations. Few businesses are served by cable, and for the great majority of small businesses, the only real broadband choice is DSL.[8] Nor does cable yet serve even all residential areas. Residential

[8] Satellite-based services, which today are generally high speed in only one direction, have attracted few subscribers. As I pointed out in another docket, Hughes currently has only about (continued . . .)

consumers in a particular area can take service only from broadband providers that serve that area, and SBC provides no disaggregated data that would allow the Commission to determine where SBC, in fact, faces strong intermodal competition. To the extent that SBC is losing share to cable competitors where the two compete – and many public reports suggest the contrary – the most likely cause is SBC's sharp price increases. In this regard, SBC ignores altogether perhaps the most important market power considerations in the mass market context, *i.e.*, the risk that SBC may profitably reduce its DSL output (with respect to either retail DSL services provided to consumers or DSL transport provided to competing DSL providers) to maintain and enhance its market power in the provision of narrowband voice and data services.

21. For example, SBC has submitted a declaration from Robert W. Crandall and Gregory Sidak in which they assure the Commission that, because of competition from cable modem service and other technologies, "SBC could not profitably increase prices" for DSL.[9] Just last year, however, SBC initiated a 25% price increase for DSL, notwithstanding (scattered) intermodal competition from cable modem service and other technologies. Verizon and BellSouth soon followed with their own 25% price increases for DSL. As a result, whereas DSL and cable modem prices were typically in parity at the beginning of 2001, DSL was significantly more expensive by the second half of the year.

(. . . continued)
100,000 residential and business subscribers to its broadband Internet access service, and Echostar has only about 40,000 subscribers. This technology, like fixed wireless, is promising but not widely used.

[9] Declaration of Robert W. Crandall and J. Gregory Sidak ¶ 51 ("Crandall-Sidak Decl."), submitted in Docket No. 01-337.

22. The higher DSL prices had a huge impact. According to the figures provided by Crandall and Sidak, 33% of SBC's customers cancelled their broadband service in just seven months. How could it be profitable for SBC to raise prices by 25% if it lost so many existing customers (and presumably gained fewer new customers than it would otherwise have gained)? One obvious possibility is that SBC did not in fact "lose" all of those customers. Many of them likely substituted additional narrowband access lines, which might well be more profitable for SBC than is DSL. Indeed, the econometric study relied upon by Crandall and Sidak confirms that most consumers continue to regard narrowband and broadband services as close demand substitutes and will choose between them based on relative prices.

23. Intermodal competition did not constrain SBC from raising its DSL price by 25%, or from charging significantly more than its cable competitors. Nor was *intra*modal competition from other DSL providers sufficient; last year, many of the competitive DSL carriers shut down or went bankrupt. Freed from this competitive threat, SBC not only raised prices but also announced that it was scaling back its "Project Pronto" program of DSL deployment. In short, the objective evidence is consistent with the hypothesis that *SBC has exercised market power*: It has raised prices and reduced output.

24. In considering SBC's petition, and, more generally, whether to accede to the ILECs' deregulation demands, the Commission should recognize that its goals are contrary to the ILECs' economic incentives. The Commission wants competition; the ILECs do not, and there can be no doubt that left to their own devices (and freed of regulations) they would deny other carriers essential inputs needed to compete. The Commission wants to encourage broadband deployment and utilization; yet the behavior of the RBOCs indicates that they do not welcome broadband because it cannibalizes their lucrative narrowband services. Their delays in

introducing DSL and their recent price increases both suggest that the RBOCs' investments in DSL are motivated less by a desire for broadband revenues than by a fear of losing narrowband revenues.

25. Moreover, although all regulation imposes costs, SBC has not presented in its petition any hard evidence that the existing dominant carrier regulation of its broadband services has resulted in significant costs that could outweigh the benefits of those regulations. Although SBC has proclaimed that it has slowed down its DSL deployment due to unspecified regulatory burdens, there is considerable economic evidence indicating that the Commission's efforts to pry open local markets have, in fact, stimulated investment in broadband. And, in the face of market power, requiring SBC to continue to file tariffs and provide cost support will serve a legitimate purpose in helping detect (and thereby deter) anticompetitive price squeezes and discrimination that could impede both broadband and narrowband competition. Indeed, given the many ways in which market power could be abused in this context, there is a strong case for *additional* targeted dominant carrier regulation, such as structural separation and affiliate transaction rules designed to provide transparency and discourage anticompetitive discrimination.

26. More importantly, however, the marketplace facts confirm that to promote competition and encourage broadband growth, the Commission must be especially vigilant in resisting the ILECs' attacks on their section 251 and other obligations to make their facilities available on nondiscriminatory terms to competitors seeking to provide both narrowband and broadband services. As I have explained in prior proceedings and will address further in other ongoing proceedings, the ILECs' efforts to eviscerate those obligations have profound implications not just for broadband competition, but for voice and other narrowband competition

as well, and the Commission should make clear that nothing it does in this proceeding should be seen as endorsing those ILEC efforts.

III. THE APPROPRIATE ECONOMIC FRAMEWORK FOR EVALUATING MARKET POWER IN THIS CONTEXT

A. "Dominance" And Market Power

27. Under the Commission's current regulatory scheme, "incumbent local exchange carriers are generally treated as dominant carriers, absent a specific finding to the contrary for a particular market."[10] Further, the Commission has equated dominance with market power – that is, a carrier's ability to raise prices by restricting its own output or by raising its competitors' costs or restricting their output through control of bottleneck facilities.[11] I believe this is the correct approach. Unless a carrier can show that it lacks market power in a specific relevant product and geographic market, it should continue to be regulated as a dominant carrier. Where market power exists, tariffing, cost support, and rate regulation can be useful tools in revealing and discouraging abuses of that power. These principles are the cornerstone of longstanding regulatory policy, and they are sound.

28. The ILECs remain indisputably dominant as providers of local telephone services. At year-end 2000, incumbents served over 94% of residential and small business customers; the CLECs served less than 6%.[12] The ILECs provided 93% of DSL lines; the CLECs saw their meager share decline from 8% in 1999 to 7% as of mid-2001.[13] The incumbents' dominance of

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[10] *Notice* ¶ 5.

[11] *Id.* ¶ 28.

[12] *February 2002 Local Competition Release* at 2.

[13] *Third Section 706 Report* ¶ 51.

broadband business services is equally striking in the arena where they are allowed to compete: services connecting locations within a single metropolitan area. In that arena, the RBOCs provide 92% of frame relay and 96% of ATM.[14]

29. The principal source of the incumbents' market power is their control over bottleneck facilities, such as local loops and transport, that are often the only economically feasible way for competitive carriers to deliver services to local consumers. As the Commission has pointed out, the local loop remains a "quintessential bottleneck facility for competing telecommunications carriers."[15] The Commission has recognized that, absent existing common carrier regulations, incumbent LECs could use their control over the local loop both to "perpetuate their monopolistic dominance of existing" voice markets and to dominate "emerging" advanced services.[16] As the Commission has noted, "carriers seeking to deploy voice-compatible xDSL-based services cannot self-provision loops."[17]

30. Likewise, with regard to broadband services offered to businesses, competitive carriers such as AT&T are still largely dependent upon the ILECs not only for local loops but also for interoffice transport facilities.[18] As the Commission correctly recognized, "replicating

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[14] IDC, *U.S. Frame Relay Services: Market Forecast and Analysis, 2000-2005*, at 26 (Dec. 2000); IDC, *ATM Services Market Share and Assessment, 2000-2005*, at 27 (Dec. 2000).

[15] *FCC WorldCom Brief* at 22.

[16] *Id.*

[17] *In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Third Report & Order, 14 FCC Rcd. 20,912, ¶ 37 (1999).

[18] *See generally* Declaration of Anthony Fea and William Taggart ("Fea/Taggart Decl.") (attached to the Comments of AT&T Corp.).

an incumbent's vast and ubiquitous network would be prohibitively expensive and delay competitive entry."[19]

31. In this context, the Commission's dominance rules make sense. In essence, the rules establish a rebuttable presumption that all services that the ILECs provide over their bottleneck facilities should be subject to dominant carrier regulation. As a theoretical matter, there is no economic objection to allowing an ILEC to attempt to rebut the presumption with respect to specific services where it can be shown that marketplace realities, such as the existence and widespread availability of alternate networks to deliver competing services, will prevent any exercise of market power. That assumes, however, that the services for which exemptions are sought are fully defined and can easily be differentiated from the services for which dominant carrier regulation should clearly continue to apply.

B. The Need For A Precise Focus

32. There is, however, no such sharp distinction between broadband and narrowband service. In the area that the Commission is now considering, the boundaries are blurry, and growing increasingly so. For example, "voice" and "data" are no longer separate worlds; more and more voice communications are being carried over data lines. The label "advanced service" is usually equated with broadband, and frame relay is the broadband service that is most widely used by large businesses. Yet about half of all frame relay ports are 56 or 64 kbps ports – *i.e.*, narrowband by many common definitions.[20] In the residential arena, some analysts believe that

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[19] *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report & Order, 15 FCC Rcd. 3696, ¶ 182 (1999) ("*UNE Remand Order*").

[20] IDC, *U.S. Frame Relay Services: Market Forecast and Analysis, 2000-2005*, at 1 (Dec. 2000).

within two years, we will see a 56 kbps *always-on* service.[21] Again, this is narrowband, yet it provides what many consumers regard as the main benefit of today's broadband services.

33. Neither consumers nor carriers regard broadband and narrowband as different worlds. As explained more fully below, millions of consumers consider broadband and dial-up access to be close substitutes; their choice depends on how much extra they must pay for the higher speed. The ILECs clearly see the connection between the two. As I discuss later, the growth in broadband cannibalizes the incumbents' highly profitable business of providing customers with additional lines. Moreover, both ILECs and CLECs (as well as cable companies providing telephony) will increasingly offer bundled packages that include both traditional voice services and broadband.

34. Thus, the Commission should proceed cautiously and carefully before it declares incumbents to be nondominant in particular areas. As technologies converge, the danger is high that an imprecise definition will create loopholes that allow ILECs to evade regulation of their traditional services. The cost of such errors could be very high indeed, for the result may be to crush attempts at competitive entry into the local telephone markets. By contrast, the costs of an error in the other direction – maintaining existing regulations that are arguably unnecessary – are quite low, for the ILECs have not shown that requirements such as tariffing impose any significant costs or materially hinder them in competing with other carriers.

35. Even if the Commission were confident that it could effectively draw and enforce such boundaries – and it is difficult to see how it could – the nature of bottleneck facilities and the well-established incentives and abilities to abuse them in myriad ways that cut across service

[21] Forrester Research, Inc., *Sizing US Consumer Telecom*, 10 (Jan. 2002) ("*Forrester January 2002 Report*").

and market boundaries requires a far-reaching and quite detailed market power analysis. For example, it is not enough to look at national statistics about DSL and cable modem subscriptions. Nationally, cable modem subscriptions have outpaced DSL subscriptions by nearly two to one. Yet in our largest state, California, DSL usage exceeds cable modems by over 30%; DSL is also ahead in Missouri.[22] If one looks at smaller geographic markets, the differences are even more pronounced, for there are areas where cable service is not available at all, just as there are areas without DSL service. There are also important differences among customer classes. As detailed below, cable modem service is simply not available to most businesses.[23] Thus, even if the Commission were to conclude that the ILECs lack market power in neighborhoods served by both DSL and cable, that analysis would not apply to the areas and customers who do not have such competitive choices.

36. Consequently, the Commission should not attempt to make across-the-board findings of market nondominance with respect to broadband services. If the Commission believes it appropriate to try to identify nondominant markets, it should do so by considering specific carriers, specific services, specific customer classes and specific geographic markets. And the decisive question should be whether, in a particular arena, the incumbent LEC has demonstrated that it has neither the ability profitably to raise price by restricting its own output

[22] Common Carrier Bureau, FCC, *High-Speed Services for Internet Access: Subscribership as of December 31, 2000*, http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hspd0801.pdf, Table 6 (August 2001).

[23] The same sorts of geographic variations apply to the special access. As the Commission's pricing flexibility decisions reflect, the availability of alternatives to ILEC special access – an essential input to the broadband services provided to large businesses – may vary from market to market. These variations are important because competitive carriers need special access to deliver advanced services to larger businesses.

nor the ability to raise price profitably by raising its rivals' costs.[24] Such an analysis must consider all the ways in which market power might be exercised. The Commission should satisfy itself that market power cannot be exercised by a unilateral reduction in output or through the control of bottleneck facilities needed by competitors. The Commission should also consider whether there is market power because of economies of scope and complementarities between the services in question and other services as to which the carrier inarguably *is* dominant. Economies of scope and complementarities may arise on the production side (because of the ability and need of competitors to provide multiple services over a single facility) and on the demand side (*i.e.*, customer demand for one-stop shopping, thereby making it important for competitive carriers to offer multiple services over a single line).

37. Moreover, the market power analysis is not enough to answer the ultimate question posed by the Commission: "what regulatory safeguards and carrier obligations, if any, should apply when a carrier that is dominant in the provision of traditional local exchange and exchange access services provides broadband service"?[25] Regardless of whether an ILEC has existing market power in a particular broadband market, it unquestionably has market power in several *related* markets by virtue of its local loop monopoly, and thus the regulation of broadband services may be appropriate because those *other* markets are not competitive. For example, as I explain later, the ILECs' control over essential inputs makes it appropriate to maintain tariff filing requirements in order to detect (and therefore deter) anticompetitive discrimination and price squeezes. An anticompetitive price squeeze that made it impossible for a CLEC or interexchange carrier ("IXC") to offer broadband services at competitive prices

[24] *See Notice* ¶ 28.

[25] *Notice* ¶ 1.

would be contrary to the public interest – and this is true regardless of whether the ILEC was classified as dominant or nondominant with respect to that particular service.

38. Even if the Commission believes that certain broadband services have become sufficiently competitive to relax some regulatory requirements, it is clear that continuing strong regulation of the ILECs' wholesale obligations is imperative to achieving the twin goals of competitive local telephone service and widespread broadband availability. I realize that this is not the proceeding in which to comment in detail on the ILECs' wholesale obligations. Although some may believe that retail broadband is an island of competition, it is nevertheless surrounded by a sea of monopoly.

39. The need to consider related markets is especially critical when determining the appropriate regulatory requirements for the incumbents' DSL services. As discussed below, the ability of CLECs efficiently to offer both voice and DSL service to customers at competitive rates is imperative if they are to pry open the local telephony markets. Such a bundled offering holds out the best hope of profitable entry by the CLECs, and therefore the best hope of achieving the central goal of the Telecommunications Act of 1996.

40. It is also critically important to recognize that incumbent LECs not only provide broadband services at retail to end users, but they also provide essential inputs for such services at wholesale to other carriers and Internet Service Providers ("ISPs"). It is one thing to suggest reconsideration of the dominant carrier classification of an incumbent LEC retail broadband service that, in fact, faces substantial competition from the services of other retail providers. It is quite another thing to suggest nondominant classification of a wholesale ILEC broadband service provided to carriers and ISPs, for which competitive alternatives are not generally available and

upon which the carriers and ISPs depend to compete with the incumbents in the provision of both broadband and voice services.

C. The Need For Market Definitions

41. As the previous section indicates, I am skeptical about the ability of the Commission (or anyone else) to define precise relevant markets, given the technological convergence that is occurring, the variations in competitive conditions in different areas and among different customer classes, and the incentive of the ILECs to exploit loopholes if those market definitions become the basis for regulatory distinctions. Although market definitions are extremely important when applying a *structural* analysis (*i.e.*, inferring market power primarily on the basis of market shares and market-entry possibilities), sometimes the *behavior* of market participants is sufficient to indicate the existence of market power. As I show below, that appears to be the situation here. During 2001, as competitive DSL providers faded from the scene, SBC was able to raise DSL prices by 25%, to maintain prices higher than the cable companies charged for their broadband service, and to scale back its DSL deployment plans. This conduct is consistent with the existence of market power.

42. Having said that, I agree that it is helpful to classify the services at issue. In the sections that follow, I distinguish between (1) broadband services that are offered primarily to large businesses and institutions, and (2) mass market services (used primarily for Internet access) that are provided to residential and business customers. I further distinguish between such mass market services offered to (A) residential customers and (B) businesses. In adopting this classification, I am not contending that these are precisely-defined relevant antitrust product

markets. There may well be a certain degree of "fuzziness" around the "edges" of the categories, but the terms are still useful in the context of this investigation.

43. As Crandall and Sidak point out, residential customers use broadband services "almost exclusively to access Internet service providers and the Internet."[26] For residential customers, the broadband choices may include cable modem service, DSL, wireless, and satellite. By contrast, larger-business customers use broadband services for different purposes, and they use many other products. For instance, frame relay and ATM – products that connect data networks – are reasonable substitutes for each other, but a cable modem service is not a reasonable substitute for most larger businesses. Its capabilities are radically different; so is its price.

44. Thus, the market for residential services used to access the Internet (whether or not it includes narrowband) is clearly separate and distinct from the market (or markets) for the services such as frame relay and ATM that are targeted at large businesses and other large institutions. I will refer to the latter as "larger-business broadband services," although my intent is to define the market(s) strictly in terms of services, not customer classes. Any customer, big or small, who purchases those services has demand for products in the market(s).

45. The Commission has traditionally distinguished the "mass market" from the larger-business market, even when the services provided to both groups of customers were similar. Crandall and Sidak support this distinction with regard to broadband services. I agree that the *residential* Internet-access market should be distinguished from the market for larger-

[26] Crandall-Sidak Decl. ¶ 33.

business services. However, the term "mass market," as used by the Commission and by Crandall and Sidak, also includes small businesses (without precisely defining "small business").

46. As explained below, the competitive landscape for businesses seeking Internet access is markedly different from the landscape for residential customers. For the most part, cable service is simply unavailable to most businesses (large or small). Consequently, I believe that the Commission should examine mass market services offered to businesses separately from mass market services offered to residential customers.

IV. LARGER-BUSINESS BROADBAND SERVICES

A. Identification Of The Larger-Business Broadband Services

47. Before working towards more precise delineation of the relevant markets, I will briefly describe various types of services available to large businesses. At the outset, it should be noted that it is somewhat of a misnomer to refer to the products identified by the Commission as "broadband" services. The most commonly used of those services is frame relay, yet about half of all frame relay ports are 56 or 64 kbps ports – *i.e.*, narrowband.[27] Nevertheless, to avoid further semantic confusion, I will use the Commission's terminology and refer to frame relay as a broadband service, regardless of the actual speed of the ports.

48. The only two services analyzed by Crandall and Sidak in their discussion of "larger-business advanced services" are frame relay and ATM (asynchronous transfer mode). Both services can be used to connect a customer's data networks (local area networks, or LANs).

[27] IDC, *U.S. Packet/Cell-Based Services Market Forecast and Analysis, 2000-2005*, at 1 (March 2001) ("*IDC Packet/Cell-Based Report*").

Frame relay is packet-based, while ATM is cell-based. A customer can combine these services, using ATM as a backbone supporting frame relay or for transporting voice and video traffic.[28]

49. SMDS and X.25 are two services that are vanishing from the marketplace. SMDS (Switched Multimegabit Data Service) is offered primarily by local carriers and is essentially a local service. As the Commission pointed out, it is "intended for application in a Metropolitan Area Network."[29] SMDS is being phased out, and in 2000 Bell Atlantic was the only carrier actively marketing it.[30] X.25 is a relatively slow service. Currently, some 85% of the connections are at speeds of 19.2 kbps or less, and another 12% are at speeds of 56 or 64 kbps.[31] This product is declining as customers migrate toward LAN-based applications and as carriers wind down their service.[32]

50. A recent report by IDC shows the relative shares of frame relay, ATM, SMDS and X.25, which it labels collectively as "packet/cell-based services." IDC presented the relative shares in terms of revenues, and also included its forecasts for the year 2005:

Shares of U.S. Packet/Cell-Based Service Revenues[33]

Technology	Share in 2000	Projected Share in 2005
Frame Relay	82.7%	81.1%
ATM	13.7%	18.6%
X.25	2.9%	0.2%
SMDS	0.7%	0.1%

[28] *IDC Packet/Cell-Based Report* at 118.

[29] *Notice* ¶ 22 n. 53 (quoting *Newton's Telecom Dictionary*, p. 632).

[30] *IDC Packet/Cell-Based Report* at 118.

[31] *Id.* at 84.

[32] *Id.* at 81.

[33] *Id.* at 7.

As this chart shows, SMDS and X.25 generate little revenue, and will likely almost disappear in a few years.

51. The Commission also inquired about Gigabit Ethernet service. I understand that this is a newly emerging service that involves fiber optic connections within a metropolitan area, offering extremely high bandwidth. During the year 2001, SBC launched its GigaMAN service in California and Texas, BellSouth launched a gigabit service in Georgia, and AT&T offered a metro ethernet service (though currently at less than gigabit speeds). The AT&T service is only available to certain customers in the 6,000 buildings where AT&T Local Network Services operates networks.[34]

B. The Relevant Product Markets

52. I agree with Crandall and Sidak that frame relay and ATM are in the same product market.[35] For many customers they are reasonable substitutes; they are priced similarly; and they clearly compete with one another.

53. There is no need to decide whether SMDS, X.25 or Ethernet services are in the same relevant market as frame relay and ATM. The question that is important in this proceeding is whether SMDS, X.25 and Ethernet should be under the same regulatory regime applicable to frame relay or ATM. I do not know of any reason why these services, which are provided today in only relatively *de minimis* quantities, should be treated differently. I believe the Commission can properly address this collection of services by focusing on the far more significant frame

[34] IDC, *U.S. Metropolitan Ethernet Services Market Forecast and Analysis, 2001-2006*, at 19 (July 2001); IDC, *Ethernet Services Update*, pp. 2-3 (December 2001).

[35] *See* Crandall-Sidak Decl. ¶¶ 96-101.

relay and ATM products and deciding what regulatory requirements are appropriate. The Commission should then apply the same regulatory requirements to the other, less economically significant services.[36]

C. The Relevant Geographic Markets

54. The Commission has requested comment on the appropriate geographic markets for broadband business services. The *LEC Classification Order* and the *WorldCom/MCI Merger Order* demonstrate how that question should be answered. In the *LEC Classification Order*, the Commission found that the geographic markets for interstate long-distance calling were point-to-point markets.[37] The Commission noted that a private line is a paradigmatic example of a point-to-point service.[38]

55. The geographic markets for services such as frame relay and ATM should be defined in a similar manner, except that the relevant markets are *multi-point* rather than point-to-point. What the customer is purchasing is a set of connections among several specific locations. In the *LEC Classification Order*, the Commission pointed out that customers in Miami generally purchase long distance calling plans originating in Miami; for such customers, calling plans

[36] The Commission also referred to Remote Local Area Network (RLAN) service. My understanding is that this is a purely local service, typically used to connect a home or small office to an enterprise's LAN. For example, a DSL line that is connected to a LAN (rather than to an Internet Service Provider) would be classified as RLAN service. With this understanding, RLAN is not in the same product market as frame relay and ATM, which are commonly used to connect several LANs. As a purely local service that can be functionally equivalent to DSL, it makes the most sense to regulate RLAN service in the same manner as DSL provided to businesses. That is a topic I address in Part V.

[37] *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area*, Second Report & Order, 12 FCC Rcd. 15756, ¶ 65 (1997) ("*LEC Classification Order*").

[38] *Id* ¶ 65 n.176.

originating in Los Angeles are not a viable substitute.[39] By the same token, a business that wants to connect the LANs in several offices in the Miami area would not regard a Los Angeles-based frame relay offering as a viable substitute.

56. Although the Commission concluded that each point-to-point market was distinct, it also decided that all long distance services would be treated as if they were in a single national market "unless there is credible evidence indicating that there is or could be a lack of competition in a particular point-to-point market."[40] Here, the competitive landscape looks dramatically different depending on whether a customer's multi-point network is scattered across a number of cites or confined to a single metropolitan area. For example, a customer desiring a national ATM network can choose among a number of carriers, none of which has even a 30% share.[41] But if the customer wanted a local ATM network, it would (as discussed below) generally confront a situation in which the RBOC that serves that area controls 90-100% of the service and other carriers have largely abandoned the field.

57. The reason for this is straight-forward. The ILECs control the vast majority (and, in some areas, virtually all) of the "last-mile" facilities (high-speed loops and transport) necessary to provide frame relay and ATM services. ILECs have a low national share because, with a few recent exceptions, they have been precluded from providing these services except at

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[39] *Id.* ¶ 65.

[40] *Id.* ¶ 66. The Commission also indicated that it would consider whether "geographic rate averaging will not sufficiently mitigate the exercise of market power." As I understand it, there is no requirement for geographic rate averaging in the provision of ATM or frame relay.

[41] IDC reported the following shares for the national ATM segment: Sprint 27.2%, WorldCom 22.9%, AT&T 22.7%, Intermedia 7.2%, Broadwing 5.6%, Qwest 4.2%, Global One 4.1%, Global Crossing 2.4%, Infonet 1.8% and others 1.9%. *IDC Packet/Cell-Based Report* at 23-48.

the local level. But with respect to the frame relay and ATM business for which they have been allowed to compete, the ILECs generally have dominated.

58. Because an ILEC's ability to exercise relevant market power in a particular multi-point market turns on the existence and extent of alternative last-mile facilities in the localities that make up that multi-point market – and, as the Commission's pricing flexibility orders recognize, the existence and extent of alternatives to the ILEC's special access services may vary significantly from one locality to the next – the Commission could not rationally grant SBC's request for a national share-based across-the-board large-business services exemption. Rather, such an exemption could be appropriate only if, after examining each and every group of points where SBC offers these services, it could be shown that sufficient alternative last-mile facilities exist in each such market to allow competing providers to bypass SBC's last-mile facilities.

D. Market Power Analysis

59. That said, it is unnecessary in practice for the Commission to engage in a discrete analysis of each and every point-to-point market where SBC offers frame relay and ATM services to act on SBC's petition. That is because, as explained below, SBC uniformly controls the bottleneck local facilities necessary to provide these services. Whether the customer's needs are local or national, the vast majority of ATM and frame relay services must travel over ILEC local loops and interoffice transport.

60. With regard to AT&T in particular, it is my understanding that in the vast majority of instances, it must use "Type II" provisioning (in which it relies on another carrier's facilities) rather than "Type I" provisioning (in which it relies entirely on its own facilities). This dependence applies not only to the local loops but also to interoffice transport (*i.e.*, from one

ILEC central office to another). Although AT&T would like to self-deploy its own transmission facilities and thereby avoid dependence upon ILEC networks, it faces numerous operational and technical difficulties in doing so.[42] Further, in many instances AT&T simply does not have a sufficient customer base, nor a sufficiently unimpeded path to attaining one, to justify the huge fixed costs of deploying high-capacity loops and transport facilities.[43]

61. The situation is even worse for most other carriers. In the 1999 *UNE Remand Order*, the Commission specifically found that the services provided to large businesses over the CLECs' own facilities did not demonstrate that *any* loop or transport facilities (including high speed) were generally available outside the incumbents' networks, and that CLECs would be impaired by denial of access to such facilities as UNEs.[44] I further understand that in the ongoing Triennial Review Proceeding, AT&T is providing extensive evidence demonstrating that this situation has not changed significantly in the last three years.

62. If further proof were needed of the ILECs' continuing market power with respect to the special access services needed by competitive carriers, the Commission need look no further than the situation in New York – which is generally thought to be the *most* competitive market in the United States. The New York Public Service Commission characterized Verizon as the "dominant" provider of special access services, based on an examination of route miles of fiber, the number of buildings passed and the number of buildings actually connected to the non-ILECs. Overall, the New York Commission found that Verizon

[42] *See* Fea-Taggart Decl. ¶ 5

[43] *See id.* ¶ 7.

[44] *UNE Remand Order* ¶¶ 176-178, 322-24, 334-60.

> continues to occupy the dominant position in the Special Services [*i.e.*, special access] market, and its dominance is a controlling factor in that market. Because competitors rely on Verizon's facilities, particularly its local loops, Verizon represents a bottleneck to the development of a healthy, competitive market for Special Services.[45]

If competitors have not been able to self-deploy loop and transport facilities in New York City, one can only conclude that carriers are dependent upon ILECs throughout significant portions of the United States.

63. The *Pricing Flexibility Order* does not demonstrate that the ILECs lack control of bottleneck inputs used to provide broadband business services. The Commission designed the triggers as an administratively convenient way to permit incumbent LECs to *respond* to competitive entry *without waiting until the ILEC had lost market power.*[46] The Commission expressly recognized in the *Pricing Flexibility Order* that it was intervening at an early point in the development of competition, and that ILECs could still exercise market power even after they were granted full pricing flexibility.[47]

64. Indeed, since the *Pricing Flexibility Order*, incumbent LECs have used pricing flexibility to keep special access rates high or even to *increase* those rates. Since mid-2000, BellSouth, SBC, Verizon, and Sprint have each received "Phase II" pricing flexibility in many of the nation's cities, for transport and special access services representing $2.5 billion in annual

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[45] *Proceeding on Motion of the Commission to Investigate Methods to Improve and Maintain High Quality Special Services Performance by Verizon New York Inc., Opinion and Order Modifying Special Services Guidelines for Verizon New York Inc., Conforming Tariff, and Requiring Additional Performance Reporting*, NY PSC Case 00-C-2051, 6 (June 15, 2001).

[46] *See Access Charge Reform*, Fifth Report & Order & Further Notice of Proposed Rulemaking, 14 FCC Rcd. 14221, ¶¶ 90, 144, 151 (1999) ("*Pricing Flexibility Order*").

[47] *Id.* ¶¶ 144, 151, 155.

revenues.[48] The results of this pricing flexibility have been that (1) none of these ILECs has decreased its special access rates in the affected cities, and therefore interexchange carriers have not received $100 million in X-Factor reductions that they would have received if those $2.5 billion in revenues had remained under price caps, and (2) BellSouth and Verizon have actually *increased* their special access rates, which has resulted in increases to AT&T of $25 million and $24 million respectively.[49] These facts are starkly inconsistent with the incumbent LECs' claims that there has been a change in circumstances since the *UNE Remand Order* and that deployment of alternative loop and transport facilities is now widespread and "prevalent."

65. This analysis is inconsistent with acceptance of SBC's petition. As discussed above, the Commission has recognized in numerous instances that a carrier with control of bottleneck facilities can, absent regulation, leverage that control into adjacent markets.

66. And it is precisely because of this ability that the share data relied upon by Crandall and Sidak are economically irrelevant.[50] Of course, the RBOCs have only a small share of the total market for these services. Until recently, they have been prohibited from providing

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[48] *See* Comments of AT&T, *In the Matter of Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, 00-256, at 20 (Feb. 14, 2002). Under "Phase II" pricing flexibility, price caps are eliminated, and the incumbent LEC is treated essentially as a nondominant carrier (except that the tariff-filing requirement is retained).

[49] *See id.* at 20-21 & nn. 17, 18; *id.* Appendix C. BellSouth filed Transmittal No. 608, effective November 1, 2001, increasing Special Access rates for DS3 and DS1 services in MSAs with Phase II pricing flexibility. The filing resulted in an annual rate increase to AT&T of over $25 million. In addition, Verizon filed Transmittal No. 134, effective January 5, 2002, increasing Special Access rates for DS1 services in MSAs with Phase II pricing flexibility. The filing resulted in an annual rate increase to AT&T of over $24 million.

[50] Crandall-Sidak ¶ 22 (referring to a 12% share of packet-switching revenues in SBC's region, without distinguishing between customers with local networks and those with national networks, which SBC is currently prohibited from providing).

frame relay and ATM services on an interLATA basis. They are, however, extremely active in providing these services on an intraLATA basis. Consistent with the economic analysis above, there is a well-understood distinction in the industry between "local" and "national" services. The "local" market refers to services that connect offices in the same metropolitan area (*i.e.*, LATA). The "national" market connects offices in different areas of the country. This distinction is highlighted, for example, in the reports by IDC that Crandall and Sidak cite repeatedly in their description of the market.[51]

67. The major interexchange carriers provide most of the national services, *i.e.*, to customers who want a frame relay or ATM network that connects locations scattered around the country. By contrast, a business that wants a network connecting offices in the same metropolitan area would find the market controlled by the incumbent LEC. Because of their bottleneck facilities, the RBOCs within their territories provide over 90% of the local services. IDC has compiled the following estimates of the share of local frame relay and ATM service revenues in 2000:

[51] *See, e.g.*, *IDC Packet/Cell-Based Report* at 23-48.

Share of Revenues for Local Services in 2000

Carrier	Frame Relay Share [52]	ATM Share [53]
Bell Atlantic	23.8%	27.6%
SBC	24.8%	41.2%
BellSouth	20.5%	8.7%
US West	16.7%	11.0%
GTE	6.0%	7.7%
Sprint	3.0%	------
MCI WorldCom	2.2%	1.5%
AT&T	0.9%	1.2%
Other CLECs	2.0%	1.1%
TOTAL RBOC SHARE	**92 %**	**96%**

68. What these data obviously reflect is that within their respective services areas, each ILEC has acquired a virtual monopoly over the provision of both frame relay and ATM services. Because the ILECs provide essential inputs to competing carriers, they have market power – which they have exercised wherever they have been allowed to compete – arising from their ability to raise their competitors' costs.

69. Once the RBOCs are allowed to provide long distance, they will also have market power with respect to regional customers. Although the RBOCs may not have a cost advantage for the interLATA portion of such service, that is only a small portion of the total cost of service. For a large portion of the cost of providing services to regional customers, the incumbents will continue to have the same advantage that now enables them to dominate the local arenas.[54] This

[52] *Id.* at 26.

[53] *Id.* at 27.

[54] Declaration of Alan Benway ¶¶ 17-18 ("Benway Decl.) (attached to the Comments of AT&T Corp.).

conclusion is reinforced by the observation of Crandall and Sidak that the businesses purchasing broadband services are sophisticated and likely to be price sensitive.[55]

70. Thus, once the RBOCs are permitted to provide regional networks, they will be in a position to quickly win over the lion's share of customers by exploiting their cost advantage over what they charge for access. Furthermore, they will have both the incentive and the ability to discriminate against competing carriers in providing the inputs necessary to offer broadband services.

71. Stated differently, unless constrained by regulations, the RBOCs will be in a position to impose an anticompetitive price squeeze on competitors by charging their own customers less for the broadband service components (such as ports, which are priced separately) than they charge competing carriers for the inputs they need to provide the same service. As the Commission has pointed out:

> If an incumbent LEC charges its competitors prices for inputs that are higher than output prices charged, then the incumbent LEC could create a price squeeze.... If the price squeeze were severe enough and continued long enough, the incumbent LEC's market share could become so large, and the competitors so weakened, that the incumbent LEC could unilaterally raise and sustain a price above competitive levels by restricting its output. Alternatively, the incumbent LEC affiliate could simply match its competitors' prices and extract supra-competitive profits.[56]

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[55] *See* Crandall-Sidak Decl. ¶ 62.

[56] *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, Notice of Proposed Rulemaking, 11 FCC Rcd. 18877, 18886, ¶ 14 (1996).

72. Crandall and Sidak do not even address the potential of an anticompetitive price squeeze for larger-business broadband services.[57] SBC asserts that the Commission need not worry about price squeezes for such services because "SBC has been competing in that market since the early-to-mid 1990s, but its market share within its region has remained static at approximately 12%; that in itself is proof that SBC could not possibly quickly gain market power in this market through illegal conduct."[58] But as I pointed out earlier, these statistics are misleading because SBC has generally not been permitted to offer broadband services on an interLATA basis. Within the "local" markets where it has been permitted to compete, its "static" share exceeds 90%. It already has market power. When it is allowed to provide interLATA broadband services throughout its region (and elsewhere), it will be in a position to implement an anticompetitive price squeeze by imposing wholesale charges that exceed its retail rates, thereby achieving the same dominance that it has over "local" service.

73. Here, the proof is in the pudding. As the declaration by Mr. Benway reveals, there are several areas where the ILEC special access charges incurred by AT&T are higher than the *retail* price the ILEC is charging customers directly for its intraLATA frame relay or ATM ports.[59] In some areas, ILEC access charges by themselves exceed the prices that AT&T would

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[57] They only address price squeezes in the context of the Internet-access market, where they make the point that the ILECs cannot squeeze the cable companies who do not rely on the ILECs' bottleneck facilities. Crandall-Sidak Decl. ¶ 94. They also assert that the DLECs offering DSL have no reason to fear a price squeeze because they can purchase unbundled loops "at TELRIC rates, not allegedly inflated access rates." *Id.* But the "allegedly inflated access rates" are precisely the problem with respect to larger-business broadband services.

[58] SBC Petition for Expedited Ruling That It Is Non-Dominant in Its Provision of Advanced Services and for Forbearance from Dominant Carrier Regulation of Those Services, at 10 ("*SBC Petition*").

[59] *See* Benway Decl. ¶ 13.

have to charge in order to be competitive with the ILEC retail frame relay and ATM prices by as much as 50 percent.[60]

74. The situation here is very different from the situation that the Commission confronted when it determined that the RBOCs would not be classified as dominant providers of long distance service originating in their home territories. In that proceeding, the Commission placed heavy emphasis on the fact that, as long distance carriers, the ILECs started out with a "zero market share."[61] They were introducing an entirely new service. That is certainly not the case here. The RBOCs already offer frame relay and ATM, and indeed they start out with a share of over 90% in the local multi-point markets.

75. In the alternative, Crandall and Sidak rely on the fact that there is substantial "excess" capacity for providing frame relay and ATM services.[62] Crandall and Sidak are on solid ground in observing that even a carrier with a high market share cannot exercise market power if competitors have substantial excess capacity and the costs of switching to competitors is relatively low. But their analysis is faulty for the same reasons as their arguments about ILEC market shares. The excess capacity that they refer to involves packet switches and intercity backbone capacity.[63] But that is not the bottleneck. In order to provide frame relay and ATM services, a carrier needs access to local loops and intraLATA transport. As to these critical components, the IXCs and CLECs do not have excess capacity; they are dependent on the ILECs.

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[60] *See id.*

[61] *Cf. LEC Classification Order* ¶ 96.

[62] Crandall-Sidak ¶¶ 117-121.

[63] *Id.* ¶¶ 118-120.