Attachment D

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

In the Matter of	)	
	)	
Review of the Section 251 Unbundling	)	
Obligations of Incumbent Local	)	CC Docket No. 01-338
Exchange Carriers	)	
	)	
Implementation of the Local Competition	)	
Provisions in the Telecommunications	)	CC Docket No. 96-98
Act of 1996	)	
	)	
Deployment of Wireline Services	)	
Offering Advanced Telecommunications	)	CC Docket No. 98-147
Capability	)	

Declaration of Howard A. Shelanski

Statement of Qualifications

I am Acting Professor of Law at the University of California at Berkeley. I received my B.A. from Haverford College in 1986, my J.D. from the University of California at Berkeley in 1992, and my Ph.D. in economics from the University of California at Berkeley in 1993. I have been a member of the Berkeley faculty since 1997. In 1998-2000 I was on leave from my faculty position to serve as a Senior Economist to the President's Council of Economic Advisers (1998-99) and then as Chief Economist of the Federal Communications Commission (1999-2000). I rejoined the Berkeley faculty on a full time basis in July 2000. I formerly practiced law in Washington, D.C. with the firm of Kellogg, Huber, Hansen, Todd and Evans and served as a law clerk to Justice Antonin Scalia of the U.S. Supreme Court.

I teach and conduct research in the areas of telecommunications regulation, antitrust, and applied microeconomics. My recent publications include articles in the *Journal of Law, Economics and Organization*, the *Yale Journal on Regulation*, the *University of Chicago Law Review*, the *Journal of Law and Economics*, the *University of Chicago Legal Forum*, and the *Columbia Law Review*. I am co-author of the recently published legal textbook *Telecommunications Law and Policy* (Carolina Academic Press, 2001). I am a regular participant in academic conferences related to telecommunications policy and antitrust and lecture regularly on both topics at universities in the United States and abroad. I have served as a referee for a number of economics journals and am an editor of the *International Review of Law and Economics*. My C.V. is attached.

Introduction

1. The Commission's Triennial Review proceeding affords the opportunity for the agency to assess the current state of local exchange competition and to review its network unbundling regulations. The purpose of this paper is to respond to the Commission's Notice by examining the empirical evidence to date on entry and UNE consumption and discussing the economic implications of that data both for current market performance and for unbundling policy going forward. The principal conclusions of this paper are the following:

- Unbundling in the absence of a clear showing of impairment would be socially costly. Facilities-based competition promises far greater benefits than does competition through unbundled access and should never be displaced by unbundling rules.

- Unbundling can undermine facilities-based competition and therefore cannot be considered a costless policy that will merely provide an alternative or complement to competing facilities. A rigorous showing of general (as opposed to firm specific) impairment to competition should be required before unbundling is retained for a network element. Such a showing should be considered defeated by actual evidence that competitors are obtaining necessary facilities without recourse to UNEs.

- Even when unbundling has proven necessary to initiate competition, the Commission should not find that market entry continues to be impaired once competing facilities actually do, or feasibly could, become available.

- Once facilities-based competition arises or proves economically feasible, unbundling should not be mandated at any price. The question of whether to require a network element to be unbundled should be treated independently of, and prior to, the question of the pricing of such unbundled access. Of course, once a determination is made as to which elements should be unbundled, it then becomes critically important to establish prices that preserve economically rational incentives to invest in competing facilities.

- Empirical evidence demonstrates that the local exchange market has become significantly more competitive since passage of the 1996 Act and, more importantly for the instant proceeding, that some network elements that have been required to be unbundled are now being competitively supplied in substantial amounts.

- Current data provide a compelling case that new entrants would face no competitive impairment if ILECs did not unbundle local switching. Similarly, interoffice transport is now being competitively supplied by competitive local exchange carriers as well as by third-party suppliers of transport facilities. Finally, the loop market is also becoming increasingly competitive, especially in the provision of high-capacity loops. New entrants are in fact entering the market for each of these elements unimpaired and the case for their mandatory unbundling has evaporated.

- In light of the empirical evidence, the FCC should reduce the current list of unbundled elements and should adopt a strong presumption against finding impairment where actual market data shows entry through paths other than unbundling.

2. This declaration is organized as follows. Part I provides theoretical background on unbundling and on the comparative economics of alternative entry paths into the local exchange business to provide a framework for drawing policy inferences from the empirical evidence. Part II discusses the policy precedent for eliminating unbundling where there is evidence of competing facilities. Part III examines empirical data on competition in the local exchange presented in the UNE Fact Report 2002, filed in this proceeding by BellSouth, SBC, Qwest and Verizon ("Fact Report"), and discusses the changing case for the unbundling of several individual network elements. Part IV concludes.

I. The Economic Importance of Correct Unbundling Policy

3. The overarching question for the Commission in this proceeding is whether competitors are currently impaired in entering the local exchange market if they lack access to a given unbundled network element (UNE) from an ILEC. To have any economic content, "impairment" must at a minimum mean that there is no option that would enable a carrier to compete in the local exchange market other than obtaining the element at issue from the ILEC under regulated unbundling. If other, non-UNE, options are available to CLECs—e.g. purchasing their own facilities or obtaining access to those owned by third parties—then the case for impairment cannot be made and unbundling should be repealed for that element.

4. In assessing the case for impairment, it is important for the Commission to adopt a realistic baseline from which to judge the development of local competition. If the standard for successful progress in local telephony is geographically ubiquitous entry, then the Commission risks finding impairment in markets that CLECs never intended to enter in the first place. The relevant question is not whether CLECs are entering local markets everywhere, but whether CLECs can enter without impairment the markets that they have demonstrated a realistic intent to enter. When the question is phrased this way, the Commission can more correctly assess alleged ILEC advantages due to incumbency. An incumbent's unrivaled presence in markets that present an unattractive business case does not necessarily mean the incumbent has advantages over rivals in other markets.

5. Unbundling of network elements is not a costless path to competition. If unbundling substitutes for facilities-based competition, consumers lose on multiple fronts. First, they will receive fewer price and output related benefits than they would receive from head-to-head competition among independent networks. Second, they will receive fewer long-term benefits from development and deployment of innovative technologies and services. In addition, they will not have the robustness and security that comes from having multiple sources of local exchange service. Unbundling

should not, therefore, be viewed as a harmless policy for fostering competition or as a mere back-up to more conventional means of competitive entry. The back-up can become the primary path and in so doing cause important social benefits to be lost. Unbundling thus needs to be understood for what it is: a risky policy that, if not carefully and selectively implemented, could deter innovation and displace superior improvements to market performance through conventional, facilities-based, entry.

6. Accordingly, as the Commission moves forward with its unbundling regulations the appropriate policy guideline where the case is close is to err against finding impairment. For reasons to be discussed in this section, the expected costs of any errors against unbundling will be much lower than the costs of errors that extend or maintain unbundling. The Commission therefore should not require that any element be unbundled if empirical evidence shows the market for that element to be susceptible to facilities-based entry and competition. In such cases, the presumption against impairment should be strong and be rebuttable only by a convincing and particularized demonstration to support a finding by the FCC that, without unbundling, efficient entry into a given market would not be feasible. To set the presumption otherwise would be to harm non-UNE-based competition, to lose substantial consumer benefits over time, and to undermine the objectives of the 1996 Act.

A. Comparison of Unbundled Access and Facilities-Based Entry

7. Consider the comparative dynamics of competition through unbundling and competition based on rival facilities. When two firms use the same network to provide service, they for the most part have the same minimum production costs. To be sure, they may have some costs that are independent, such as those of marketing or customer service. But the sharing of facilities necessarily reduces the scope of the carriers' abilities and competitive incentives to reduce production costs. In comparison, when rival facilities compete in the marketplace, they have distinct production costs and each competitor has strong incentives to reduce the costs of producing its service in order to cut prices to consumers and gain market share. All

else being equal, facilities-based competition promises much greater price and output benefits for consumers than competition over shared network facilities does. As Justice Breyer plainly put the point somewhat in his separate opinion in *Iowa Utilities Board.* v. *AT&T*, 525 U.S. 366, 430 (1999): "A totally unbundled world—a world in which competitors share every part of an incumbent's existing system, including, say, billing, advertising, sales staff, and work force (and in which regulators set all unbundling charges)—is a world in which competitors would have little, if anything, to compete about."

8. Similarly, when firms use common facilities, the industry at issue is less likely to create or deploy innovative technology or services. The fewer the competing networks, the smaller the possible set of alternative approaches to innovation. With fewer firms pursuing independent innovation efforts, the less likely it is that new services will be introduced in a given time frame. More fundamentally, the incentive to engage in innovation in the first place declines when rival service operators use a shared network. For, the innovator will share any benefits it creates with others using the network rather than capturing the returns itself. The incumbent's investment in its network will in effect create a positive externality for UNE users, and the operator's incentive to undertake such investments will diminish to the extent it cannot capture returns from that externality. Much of the incentive to innovate can come from desire to gain an edge over rivals, which is not possible if those rivals automatically get access to the innovation in question.

9. On the other hand, when a carrier faces competition from rival networks, it will have an incentive to cut its own costs and to offer new services to its customers as a means of gaining market share from its rivals. Indeed, empirical evidence suggests that, over the history of U.S. telecommunications, deployment of new technology and services has occurred more quickly in markets that contain competing networks than in markets with only one network.[1] An analysis by FCC staff, for example, attributed

[1] See, e.g., Howard Shelanski, "Competition and Deployment of New Technology in U.S. Telecommunications," *U. Chi. Leg. Forum* 85 (2001).

accelerated deployment of DSL service to pressure from cable networks' broadband offerings. [2] Fiber deployment in the long-distance telephone sector, the virtues of which were appreciated by the late 1970's, accelerated only with the full-scale, facilities-based entry of Sprint upon the implementation of equal IXC/LEC interconnection after the AT&T divestiture in 1984. [3]

10. Innovation concerns not only counsel against retaining unbundling requirements where market evidence shows competitive facilities, but also against extending unbundling obligations to new kinds of equipment or services. When new, advanced technology becomes available and new kinds of services are introduced into the marketplace, the costs, risks, and uncertainty may all be quite substantial. To require ILECs to unbundle such facilities to competitors will impede deployment of new technology and services, to the detriment of consumers. Just as the balance of risks weighs against continuing to unbundle facilities that are becoming competitively supplied, it weighs against unbundling advanced facilities that are not yet supplied at all on a wide scale or that are just beginning to be supplied. The ILEC itself is newly entering the provision of such services and facilities.

11. Even if the ILEC were the sole emerging provider of such advanced capabilities (which is not the case), the Commission should not extend unbundling to the relevant new facilities if implementation of advanced technology is to be encouraged. Simply put, just as impairment should not be found for existing UNEs that become competitively available in the marketplace, impairment should not be found for advanced services facilities that are just entering the market and which the ILECs themselves are just beginning to deploy. Examples of such new technology include fiber-based local loop technologies and packet switching.

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[2] Broadband today: A Staff Report to William E. Kennard, Chairman, FCC, at 27 (October 1999), available at http://www.fcc.gov/bureaus/cable/reports/broadbandtoday.pdf.

[3] Shelanski, "Competition and Deployment of New Technology in U.S. Telecommunications," *supra*.

12. Whereas both the current and long-run costs of displacing facilities-based competition with unbundled access may be quite high, the countervailing benefits of unbundling are limited. Unbundling can in theory lead to more efficient use of existing facilities and thereby dissipate any monopoly effects in the incumbent's provision of network-based services. It can also create competitive pressure to innovate in non-facilities aspects of service provision, such as marketing, customer service, or packaging of services. It is essential to recognize, however, that none of the above benefits is unique to unbundling. Each would flow, and to a much greater degree, from facilities-based entry. Pricing, service quality, and innovation would all improve more directly and dramatically from efficient introduction of competing facilities than from allowing new entrants to use existing networks.

13. The most important benefit generally ascribed to unbundling is that it can serve as a transitional mechanism to facilities-based competition where otherwise such competition would not arise or would arise only piecemeal. As a threshold matter, that is not how UNEs are in fact used and the mere fact that new entrants cannot feasibly construct ubiquitous networks does not make the case for unbundled access. Even if new entrants cannot offer full networks from the outset, they may be able to build out incrementally and to obtain interconnection with other carriers such that viable entry does not depend on unbundling. Currently, more than half of CLEC lines are served entirely over the CLECs' own facilities (Fact Report, Section I, Figure 3). To the extent the choice is genuinely one between monopoly and competition through unbundling, requiring unbundled access may be sound policy.[4] But the unbundling-as-transition argument cannot by its terms provide an enduring justification for such regulation. There is a serious risk with infant-industry or infant-firm policies that the infants never grow up. Once the transition to non-UNE-based competition actually occurs, or once it can be shown that competition *can* occur without resort to UNEs, there is no need to maintain unbundling requirements.

[4] It is not necessarily the case that unbundling will be preferred to monopoly, however. There are administrative costs to unbundling as well as productive inefficiencies—for example from possible reduction of investment incentives for the network owner—that could offset the benefits of competition

14. Equally importantly, even if the transition to facilities-based competition does *not* occur and UNE consumption continues, then regulators must consider the possibility that unbundling has been implemented in a manner that causes firms to substitute entry using incumbent networks for entry over their own facilities. The paradox is that the same evidence some might use to prove impairment but for unbundling—high levels of unbundled access consumption—might in fact prove something very different and lead to exactly the opposite policy prescription. Indeed, it could demonstrate that unbundling provides an alternative to facilities-based entry that benefits some new entrants (those that choose not to invest in facilities) but not competition or consumers.

15. Substitution of UNEs for facilities-based entry is not merely conjectural. By 1999, when the FCC last reviewed its UNE regulations, competitive provision of DSL was well under way. Many data CLECs supplied their own electronic facilities (*i.e.* DSLAMs), which they collocated in ILEC central offices. Yet many other CLECs nonetheless contended that competition would be impaired without an unbundled "packet UNE." The Commission mostly rejected that unbundling request, but the key point is that even where impairment clearly did not exist, a group of entrants preferred to opt for unbundling over purchase of their own facilities.

16. It is thus necessary, if sound policy is to be implemented, for regulators to examine market developments carefully and to credit fully the importance of data on the entry of independent, competitive facilities. Costly tradeoffs are likely to result if regulations require unbundling of a network element once market evidence demonstrates that new competitors can—whether they actually choose to or not—economically provide that facility for itself, obtain it from third parties, or obtain if from the ILEC under arrangements other than regulated unbundling. Such a policy runs the risk of supplanting the substantial benefits of facilities-based entry with the

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through unbundled access. But it cannot be questioned that the case for unbundling is strongest where it can be demonstrated that there is no other likelihood of competitive entry.

comparatively anemic returns, and potentially high costs, of unbundled access. Given this tradeoff, the Commission should presume impairment does not exist where the market demonstrates the entry of alternative facilities and should in such cases place the burden on CLECs rigorously to demonstrate that impairment persists if unbundling of a given element is to be continued.

B. Once Entry Without Reliance on UNEs Proves Viable, The Case for Impairment, and hence for Unbundling, Evaporates

17. Once entrants have demonstrated that they can enter the local exchange market without resort to particular unbundled elements, the Commission should no longer mandate that those elements be unbundled. The feasibility of facilities-based entry and other alternatives to UNE-based competition accomplish all of the goals that the 1996 Act sought to reach through unbundling. Such options first and foremost demonstrate that entrants will not be impaired without unbundled access to ILEC facilities. Second, they either provide a transitional mechanism to full facilities-based entry or show that such a transitional alternative is not necessary. And third, they show that the market has become a less uncertain place for CLECs to do business in terms of the availability of competitive facilities or of the financial feasibility of constructing one's own facilities.

18. The case of interoffice transport is a good example of the above changes. CLECs and third parties both found a business case for building transport facilities to use themselves or lease to others. Any CLEC entering the market can thus see that construction of its own transport is feasible, yet can still purchase such transport from a third party if it opts not to build over the short or even long run. The same facts apply to switching. As new entrants add their own switch capacity, they not only free themselves from relying on ILEC facilities, but they also create a non-ILEC source of leased switching capacity for new entrants who choose, for whatever reason, not to invest in their own equipment.

19. The same arguments that counsel against unbundling where competitive facilities can exist also apply to extending unbundling to cases where regulated or tariffed arrangements between ILECs and other carriers eliminate impairment. Interexchange carriers and CMRS providers, for example, have had no difficulty obtaining special access from the ILECs through non-UNE agreements. Indeed, IXCs and others have been successfully providing competitive access for a decade. There is thus no case for extending unbundling obligations to special access or indeed any case in which other arrangements have proven sufficient to defeat competitive impairment.

20. One might argue that unbundling will simply coexist with, and not supplant, facilities-based competition where the latter is feasible. From that standpoint unbundling is simply another alternative entry path that should be left open to entrants. This argument is flawed for several reasons. To begin with, even if unbundling were to substitute only marginally for facilities-based entry, the foregone consumer gains could be substantial. But when unbundling is available, its substitution effect is likely to be more than merely marginal.

21. First, unbundled access may offer a new entrant certain advantages over facilities-based entry, even if the latter would better serve competition and consumers. For example, an entrant may perceive entry over the incumbent's facilities as less risky or more profitable than entry on a facilities basis, even where, absent the unbundling option, the entrant would have found it economical to build its own facilities. An entrant might also prefer to limit the competitive pressure that would result from facilities-based competition by opting instead for unbundled access. That option would free the entrant from having to engage in independent innovation efforts and, moreover, afford it an option on any advance in the network implemented by the incumbent. While an economically correct UNE price would include the value of that option, the pricing solution (which would itself be very difficult accurately to achieve) does nothing to compensate for the reduction in independent innovation activities. Consumers bear the resulting costs in the form of reduced flow of cost-reducing advances in the network and reduced flow of new service options.

22. An entrant might also use unbundled access as a way to defer investment in its own facilities until such time as a new generation of technology emerges. This latter strategy is not inefficient in cases where no firm would rationally invest in today's technology because of forecasts about tomorrow's better technology. No firm wants to strand costs and there may be times when it is rational to wait to enter the market when significant technological change is in prospect. A problem arises, however, where it would be efficient for a firm to invest in today's technology and enter the market with its own equipment, but where it instead opts for unbundling while it waits for future technological developments. Each such use of unbundling to play socially inefficient "wait and see" games further defers true competition.

23. Second, unbundling requirements entail regulated rates for unbundled access, which in turn add to the costs and economic risks of unbundling. The administrative difficulties of setting economically correct prices for network elements are not trivial. If rates turn out not to match costs exactly and instead to understate actual costs, then those rates will fail accurately to communicate to entrants the relative prices of alternative entry options. The costs of such inaccuracies are very high. In particular, if UNE prices understate the total costs of unbundled entry, they will systematically bias entrants towards unbundling and away from facilities-based competition.

24. At the same time, prices that are too low will deter the incumbents from making investments in their own networks because they will have to share the benefits, although not the full costs, with competitors using UNEs. Moreover, to retain mandatory unbundling once there is no longer impairment is to raise the possibility that UNE prices will undermine those CLECs that have invested in their own facilities. State or federal regulators must not only get pricing right initially, but they must ensure pricing remains appropriate each time they revisit and revise pricing over time. Even if UNE prices send accurate signals for a time, they might later fall to the point that facilities-based CLECs are at a comparative disadvantage to CLECs using UNEs, even though the former may have more efficient networks. This problem of

shifting price signals is not conjectural. Several states have already held multiple pricing proceedings and in some cases, for example New York, have radically revised UNE rates over just a couple of years.

25. I do not here intend to delve into the complex and contentious issue of UNE pricing. The point is simply that an unrealistically strong assumption of sustained accuracy in setting regulated UNE prices is required before one can say with any confidence that an unbundling option will not affect incentives to build new, competing facilities or to improve existing ones. The results of different state pricing proceedings make clear just how unlikely it is that regulators will set prices correctly. In Indiana, for example, the UNE price for a loop is between $8.00 and $8.99 per month, with an average price of about $8.30. This is about half the national average. It is also far less than the rates in all states with similar population densities. The population per square mile in Indiana is 168. In North Carolina, with a population density of 155 per square mile, the average loop price is $15.88. In Georgia, with a population density of 142, the average loop price is $16.51, while in Tennessee, where the population density is 136 people per square mile, the loop rate in Tennessee is $14.92. It seems improbable that these price differences reflect purely cost differences. The correct explanation is more likely that setting UNE rates is an exercise fraught with opportunity for imprecision and error.

26. Of course, once a determination is made that some elements should be unbundled, it is important that the prices for unbundled network elements be set correctly where unbundling does occur. Otherwise, those prices will further exacerbate the deterrent effect that unbundling has on investment in competing facilities. I have explained elsewhere that the Commission's current TELRIC pricing rules do not preserve economically rational investment incentives and need to be revisited. But for the present purpose the key point is that these efficient price adjustments should not substitute for careful analysis of whether competitors are truly impaired without access to a given network element. The potential economic costs of unwarranted unbundling cannot be cured through mere adjustments in the price of unbundled

access. Once facilities-based competition in a UNE market arises or proves economically feasible, unbundling should not be mandated at any price. The question of whether to require a network element to be unbundled should be treated independently of, and prior to, the question of the pricing of such unbundled access.

27. The arguments against trying to adjust unbundling rules at the level of pricing instead of at the level of the elements themselves include the same reasons, listed above, for why firms might privately choose unbundling even where the social benefits of facilities-based entry are higher. But there are other reasons as well. First, ongoing price regulation entails ongoing administrative costs. Once CLECs are no longer impaired in their ability to build or obtain network elements in the marketplace, there is no reason to incur the administrative cost of overseeing regulated access to that element.

28. Second, the mere opportunity to obtain unbundled access at cost-based rates may induce new entrants to resort to UNE price negotiations or arbitration in the hope of obtaining comparatively advantageous entry terms, even where they face no impairment in entering on a non-UNE basis. Again, there is no need to speculate about such strategies: several states have held proceedings to adjust UNE rates over the same time period that the Fact Report shows facilities-based entry to be proving viable in markets covered by the UNE rates at issue.

C. Neither Alleged Transaction Costs of Combining UNEs Nor Demand for a UNE "Platform" Should Affect the Commission's Element-by-Element Impairment Analysis

29. Once the Commission determines that competitors are not impaired by lack of regulated access to an ILEC network element, the inquiry should end. The FCC's determination should not be undermined by claims that the element should nonetheless be unbundled because it is part of a desired UNE platform or because of

alleged transactions costs in combining a mix of the CLEC's own facilities, UNEs, and/or third party facilities.

30. The threshold, necessary condition for unbundling in the 1996 Act is impairment, which must be demonstrated on an element-by-element basis.[5] If evidence demonstrates that CLECs have viable alternatives to an ILEC's network elements, then there is no economic impairment as to those elements. It might be that in some cases there are costs to combining elements that a CLEC obtains on its own with those that it obtains on an unbundled basis. But those "combination costs" should not be a mechanism by which network facilities, which on their own cause no competitive impairment, are bootstrapped back onto the list of required unbundled elements. In such cases competitors should bear the burden of showing that the transaction costs of combining elements are so high that they make alternatives economically infeasible for each UNE and thus create impairment compared to the ILECs, which themselves must incur the costs of combining their own network elements. In other words, the CLECs must show that despite availability of non-ILEC facilities for lease or purchase, they will be truly, comparatively impaired by resorting to those alternatives.

31. The mere existence of some combination costs, or the mere fact that entrants would find unbundling to be cheaper than building their own facilities or other alternatives, does not carry this burden because carriers could still compete without reliance on the UNE. Indeed, the CLECs must be able to show that the up-front or continuing transaction costs of non-UNE alternatives are so high as to render them uneconomic for competitive entry. Given the facts of actual competitive entry for the services CLECs seek to offer, without reliance on UNEs, this is an argument that may exist in theory, but fails in fact.

[5] In section 251(d)(2), the Act sets up impairment as a "minimum" limiting factor on unbundling. Impairment is a necessary but not always sufficient condition for unbundling under the Act. The Commission may therefore limit the list of unbundled elements even if carriers can demonstrate impairment.

32. Similarly, arguments that a UNE "platform" is necessary for entry should not be able to drive individualized, element-by-element analysis of competitive impairment. There is no "platform" UNE, only a platform of those individual elements the Commission has ordered to be unbundled. The "platform" proceeds from the list of individual UNEs. To allow the determination to work in reverse would pervert the statute and undermine more complete development of local exchange competition.

33. There are a number of ways that the platform might be claimed to require continued unbundling of a UNE that can be competitively provided or obtained. For example, some competitors might argue that removal of a UNE from the platform would disrupt their current infrastructure configuration and impose transaction costs, so that the element should be kept on the UNE list. Yet this turns impairment analysis on its head and creates a one-way ratchet in the direction of sustained unbundling. Second, such CLECs might propose that even if an element need not be unbundled in itself, it should be retained as a required element for CLECs buying the whole platform. This creates a new UNE, the platform itself, and creates a bias towards increased UNE consumption by effectively granting a longer list of available UNEs to CLECs that adopt an entirely UNE-based strategy than those who actually build their own facilities or obtain them from competitive sources to the ILEC. The result is a disincentive for non-UNE-based competition that directly contradicts the intention that UNEs serve as a transitional mechanism *towards* facilities-based entry.

34. Finally, it might be argued that even if an element no longer causes impairment and hence need not be unbundled, it should nonetheless be made available on some basis as part of the platform. This option drags regulators into a complex pricing exercise and amounts to maintaining a "platform UNE," albeit at perhaps a higher price than would otherwise prevail. Such a hybrid of UNEs and services is not an option under the statute and would be an administrative quagmire.

D. <u>Unbundling Imposes Substantial Costs on Regulated Carriers</u>

35. In addition to the substantial social costs that result when competitors substitute UNEs for facilities-based entry, other economic harm flows from the costs that unbundling imposes on the ILECs directly. To provision a UNE, an ILEC must not only incur a new set of administrative costs unrelated to serving its end-users, but it must also make investment and design decisions with estimates of CLEC demand factored in. But because CLECs need not continue to purchase a UNE over time, an ILEC may be stuck with investment, made to accommodate projected CLEC demands, which the ILEC cannot recover. ILECs must therefore factor in much higher risk in all of their forward-looking network investments. This in turn raises the cost of such investment and impedes network development over time.

36. The costs to ILECs and ultimately to consumers are likely to be especially high where new technology is at issue. Deployment of new infrastructure proceeds well in advance of demand. Substantial risk and uncertainty accompany any such investment. If ILECs must also contemplate having to unbundle such infrastructure to competitors at cost, the return on such investment becomes less certain and hence less attractive. This is particularly so where the amount of ILEC investment necessary to implement new technology is increased by the possibility of mandated access for CLECs to that technology. Consider the case of SBC's provision of collocation for CLEC electronics on the line-side of new, digital loop carrier plant. To comply with this requirement, SBC has reported that it has spent $20 million thus far and will be forced to spend an additional $30 million if it continues to deploy remote terminals in accordance with its original Project Pronto plans. SBC also states that it was required to reconfigure its network design so that the transmission component of its broadband service could be made available to competitors. This requirement forced SBC to deploy in its central offices optical concentration devices that would not otherwise have been necessary and that have added nearly $200 million to Project Pronto network costs. In addition, SBC reports that state requirements that it provide splitters for line sharing have added another $107 million in costs. SBC says that it has been able to recover virtually none of these additional costs because, as it turned out, not a single CLEC has collocated in an SBC remote terminal or elected to use its

broadband service (other than its own affiliate), and only 14% of the line splitters it deployed are being used.[6] SBC's reported experience illustrates why the costs of accommodating competitive access need not always be productive and can in fact cause substantial waste of resources. Regulatory mandates that such expenditures be made to enable unbundled access, well in advance of any demonstrable need and demand for the end-user service at issue, will raise costs without likelihood of compensating benefits.

II. A Cautious And Rigorous Approach to Unbundling is Consistent with Established Principles of Competition Policy

37. Evidence of competition in the provision of a network element should weigh heavily against continued unbundling of that element. Such a policy presumption is consistent with general principles of competition policy and with important precedents from antitrust.

38. As a threshold matter, one might object that the Telecommunications Act of 1996 is not meant to replicate the antitrust laws and is expressly intended to impose a different and more generous standard for unbundling than that which might be implied under the Sherman Act. That may well be true and I take no position here on the comparison between the 1996 Act's "impair" standard and the "essential facilities" doctrine of antitrust law. Rather, the important point is that antitrust law contains valuable lessons for network unbundling that do not hinge on possible differences in statutory standards. First, antitrust law requires or permits use of common facilities only when competition overall will not be harmed by such outcomes. To be sure, applicable antitrust precedents require that much more be shown before a firm can get access to a competitor's facilities. But even if the FCC's

[6] Comments of SBC Communications, Inc., In the Matter of Deployment of Broadband Networks and Advanced Telecommunications Services, Docket No. 011109273-1273-01, at 26 (December 19, 2001); Ex Parte Letter from James Smith, SBC, to William Caton, Acting Secretary, FCC, CC Dkt 96-98, March 25, 2002.

unbundling standard is more lenient than that of antitrust law, the precedent of ensuring that, at a minimum, overall competition is not harmed through unbundled access, is worth importing into this proceeding. To allow for unbundling where facilities-based entry is possible and economically more beneficial would be contrary to this principle.

39. Second, antitrust law draws an important distinction between competition and competitors. The disadvantage suffered by an individual competitor is not cognizable harm under the antitrust law unless that disadvantage flows from conduct that more generally harms competition itself. A similar principle is beneficial in the UNE context. It may be the case that one or another putative entrants into the local exchange business would better be able to enter, or would only be able to enter if a particular network element were available on an unbundled basis. Such entrants might on that basis plead impairment in the absence of unbundling. But if the economic evidence and market data show that some entrants are entering with their own facilities, then that evidence also suggests that, even if the absence of unbundling would disadvantage some individual competitors, it would not impair competitive entry itself. If policy is driven by the firms pleading impairment rather than by those entering with their own facilities, then the end result maybe to replace meaningful competition with an expanded group of less meaningful competitors.

40. Third, the process of rigorously defining a market for purposes of antitrust analysis applies to the question of unbundling. It is important, in deciding whether a network element needs to be unbundled, to examine both the competitive alternatives to the ILEC's facilities as well as the ease of entry into provision of the element at issue. This analysis may require defining markets both in terms of product and of geography. If there are competitive providers of an element, or if the evidence shows that firms, either nationwide or in particular geographic markets, are successfully providing the elements for themselves and thus entering the market for the UNE at issue, then the case that competition is impaired without access to the incumbent's

facilities fails. Careful definition and analysis of the markets for individual UNEs will thus be essential to unbundling policy that best promotes true competition and the ensuing consumer benefits.

41. One essential component of defining UNE markets will, as implied above, be geographic. It might be that there is no competitive entry or competitive UNE provisions in some geographic regions, but significant entry in others. Competitors should not be able to point to regions where there is no competitive UNE provision in order to maintain unbundling in regions where such entry is proving feasible. If UNEs were maintained on that basis, unbundling obligations would last so long as CLECs decided that there were some markets they did not want to enter or where they entered solely on a UNE basis. Even if lack of entry in some regions is the result of impairment (instead of because the market has unattractive profit potential), that localized impairment should not suffice to maintain unbundling obligations in markets where such impairment does not exist.

42. A critical, related point is that the Commission's competitive analysis should not presume that lack of competition stems from entry barriers or other impairment. Entry into some markets without recourse to UNEs may be perfectly possible, but simply unattractive. Regulated end-user rates, cross-subsidies, and the slow process of state-by-state rate rebalancing all affect entry decisions. It is indeed one advantage for CLECs that they can choose their markets while ILECs cannot. Lack of entry due to regulatory factors or opportunity costs should not be converted into evidence of impairment. In such cases the ILECs bear costs that the CLECs choose not to, and to require unbundling in such circumstances simply exacerbates the regulatory distortions.

43. Finally, inter-modal rivalry is of central importance to the analysis of competitive impairment. If firms can provide substitutes for ILEC local exchange services over networks that bypass the telephone networks by using alternative kinds of facilities, then it is hard to make a case that entry in any way depends on unbundled access to

the ILECs' networks. Even were it the case that entrants into the local market could not, for example, obtain conventional wireline loops without unbundling, there would be no impairment to *competition* if cable or wireless loops provided an alternative way to connect to customers. The Commission has itself emphasized the importance of inter-modal competition on the ILECs in the broadband context in finding that "the ILECs' aggressive deployment of DSL can be attributed in large part to the deployment of cable modem service."[7] Cable and wireless telephony must therefore be considered in the analysis, and the inter-modal competition they provide to ILECs counted against the case for impairment. This analysis should be dynamic and also take account of technologies, like satellite-based broadband access, that are currently entering the marketplace and that are likely to add yet further competition in the foreseeable future.

III. Empirical Evidence of Entry and Competition in UNE Markets

44. This section addresses the evidence of facilities-based competition in the provision of several network elements. I will focus my discussion on switching and inter-office transport, but I will also discuss competition in providing both standard and broadband loops. In this section, I rely on data contained in the UNE Fact Report 2002 filed in this proceeding by BellSouth, SBC, Qwest and Verizon ("Fact Report"). The evidence presented in that report convincingly demonstrates that in the case of both switching and transport, there is substantial competition to the ILECs' facilities and that such competition will only grow with technological changes already underway in the local exchange market. The data also show that the case for impairment without unbundled access to conventional voice loops is diminishing, and that it has vanished altogether with respect to high-capacity loops. My purpose in this section is not to reproduce the Fact Report, to which I refer the reader for a full discussion of current market data. It is instead to highlight certain key developments

[7] Broadband today: A Staff Report to William E. Kennard, Chairman, FCC, at 27 (October 1999), available at http://www.fcc.gov/bureaus/cable/reports/broadbandtoday.pdf.

that demonstrate that the case for economic impairment in local exchange entry is diminishing rapidly overall and, in several key cases, has been eliminated altogether.

A. Switching Has Become Competitive and Will Become Even More So In The Near Future

45. Determining whether CLECs have substitutes for unbundled ILEC switches, such that they are not impaired without access to those ILEC switches, requires one to look beyond conventional circuit-switching technologies for voice calls. Whether or not CLECs have access to alternative circuit switches (which they in fact do), they have alternative technologies for switching local traffic. Defining the product to be examined in assessing impairment as "circuit switching for wire-line voice telephony" fails to capture the fact that much circuit-switched traffic consists of data, not voice, and that much switching of data and voice is packet switched, not circuit switched. In defining the market in which CLECs obtain the switching component of local exchange service, an important question is whether the decision to continue to require unbundled switching should take into account only wire-line, circuit-switched voice service or whether the market should be defined more broadly to include data services, packet switching, and wireless switching. As will be discussed below, the strength of the evidence on competitive, facilities-based switching is such that, even if the most limited definition of switching is adopted, there is still a compelling case for eliminating mandatory, unbundled access to ILEC switches. That case becomes all the stronger as one uses broader, more realistic product market definitions to assess performance of the switching market.

1. Circuit Switching has Become Competitive

46. An examination of the data on circuit switching of wire-line traffic demonstrates that competitors have no need for access to the ILECs' "voice" switches. CLECs operate at least 1300 local voice switches today, over which they serve 16 million to 23 million lines. (Fact Report at II-1). Those switches are being deployed nationwide by

more than 200 CLECs. Importantly, most of the top CLECs use negligible amounts of unbundled switching and instead do almost all their circuit switching with their own equipment. (Fact Report at II-1) This last fact demonstrates that switch investment is something that new entrants both can, and overwhelmingly do, undertake on their own and without resort to ILEC networks.

47. The evidence is quite clear that facilities-based, competitive switching is not confined to CLECs that serve particular kinds of customers or particular geographic markets. While the majority of CLEC lines are business lines, CLECs are serving approximately 3 million residential subscribers over their own switches. (Fact Report at II-4, Table 2). Moreover, those switches are broadly deployed throughout the country. Almost half of all ILEC wire centers, for example, are served by at least one CLEC switch. (Fact Report at II-6). Significantly, those wire centers in which CLECs are using their own switches serve about 86 percent of ILEC customers. (Fact Report at II-1). A detailed discussion of CLEC switching is presented in part II of the Fact Report.

48. The empirical evidence thus weighs strongly in favor of removing switching from the list of network elements to be unbundled pursuant to the 1996 Act. Advocates of unbundled switching might nonetheless raise several objections to the economic significance of the data discussed above. Yet there is a compelling response to each such objection.

49. First, some might contend that evidence of CLEC-owned switches does not necessarily correspond to success by CLECs in entering the local exchange market. The data contradict any such assertion, however. As the Fact Report explains, at the end of 2001 CLECs were serving about 3 million residential lines and a much larger number of business lines with their own switches. (Fact Report at II-4). The fact that there is a large number of competitive switches and that CLECs can use them to serve residential customers, defeats any claim of impairment. The evidence makes clear

that switching is easily obtained and that competitors are not impaired if they must proceed without access to the ILECs' switches.

50. Moreover, it should be noted that, once CLEC switches are in place, any excess capacity they have will make the market for switching services more competitive, not less so. If a CLEC purchases a switch and then fails to capture enough retail customers to use up capacity of the switch, then the CLEC can sell its excess capacity, or even its entire switch, to other entrants. Excess CLEC switch capacity would thus create an additional source of switching services for those entrants that for whatever reason might not want to purchase their own switches. Finally, the premise that local exchange competition has not followed from the introduction of competitive switches is false. As the data show, nearly 14 million local telephone numbers have been "ported" from ILEC switches to CLEC switches since 1999. Each ported number signifies a customer that the CLEC has won from the ILEC and now serves on its own switch. (Fact Report at II-5). And this ignores the new customers that the CLEC has won and now serves through an NXX code instead of a ported local number.

51. Second, some might argue that switching itself is too narrow product market definition for purposes of deciding unbundling. Switching alone, after all, is of little value if loops cannot successfully be connected to the CLEC's switch. If collocation in ILEC wire centers is not possible, or if "hot cuts" of loops from an ILEC's switch to a CLEC's switch involve prohibitive costs or delays, then new entrants might have trouble switching traffic regardless of what facilities they own. The relevant market might thus be argued to consist of switching with necessary customer-transfer services. There are two pieces of market evidence that suggest little need for concern that switching may be thwarted by poor collocation or hot-cut performance. The most important fact is that hot-cut performance and collocation availability have both improved dramatically since the Commission's 1999 UNE review. (Fact Report at App. H) The second fact, which probably results in part from the first, is that CLECs are in fact purchasing their own switches and thus acting in a manner that is

inconsistent with substantial concerns about hot-cuts or collocation services. Moreover, the hot cut issue is completely irrelevant for those competitors who do not need ILEC loops.

52. The important point is that real empirical data, not conjectural or theoretical concerns, should be the guide to Commission action when it comes to unbundling. Nothing more clearly demonstrates the feasibility of UNE alternatives than the fact that they actually exist and are being used successfully. Pointing to problems that allegedly existed in the past—and the large number of CLEC switches that existed at the time of the last UNE review suggests that there was no impairment due to switching even in the past—or that could speculatively exist in the future cannot defeat the reality of the marketplace and should not be permitted to take precedence over actual developments. To favor those firms that seek strategic advantage through unbundling when other competitors are investing in facilities risks undermining true competitive investment and the greater social benefits that it creates.

53. Third, advocates of unbundling might suggest that the data do not make a case for complete removal of switching from the UNE list because some wire centers are not competitively served, making unbundling necessary in those remote areas. This argument, too, fails for several reasons. Most notably, there is no evidence that competitive switching is difficult to obtain or provide in any region in which a CLEC actually chooses to pursue customers. Indeed, the broad dispersal of competitive switches makes clear that CLECs have been able to deploy their own equipment where they wish. Moreover, switching technology is now such that even very distant customers can be served from a single switch. The CLECs themselves have heralded the ability to engage in remote switching and to avoid placing a switch in a distant wire center or one in which they anticipate few customers, while still being able to serve those few, distant customers. (See Fact Report at II-9).

54. Finally, some might argue that the very data showing growth in CLEC-owned switches is evidence of the success of unbundled access to switching. The increase in

facilities-based switching might be argued to constitute the very transition that unbundling was intended to foster and to thus be evidence for continuing, rather than removing, requirements to unbundled switching. The evidence firmly contradicts any such claim that a lack of unbundled switching would undermine the transition to facilities-based competition. As the data in the part II of the Fact Report demonstrate, many of the largest CLECs use *no* unbundled switching at all. The transition to facilities-based switching is for many competitors thus "complete," if it ever was necessary in the first place. The fact that some CLECs might prefer to continue obtaining switching on an unbundled basis is thus likely a result of their private business strategies and calculations rather than because foreclosure of that option would impair their further entry into local switching.

55. The data on local switching thus demonstrate convincingly that, even if the Commission were to adopt the most conservative and static product market definition—that of circuit-switched "voice" switching—there is a very strong case for removing local switching from the list of required UNEs. As the next section will show, that case become even stronger once one uses a more realistic and dynamic market definition for switching.

2. <u>The Switching Analysis Should Include Packet Technology</u>

56. The analysis above was restricted to circuit switching. But packet switching should be included in the relevant product market for purposes of analyzing the need for unbundled switching. Packet switching directly competes for current data traffic. Packet switching by cable modem and wireless services alone now substitute for about four percent of circuit switched calls, assuming that all broadband traffic would otherwise go over dial-up lines. (Fact Report at II-3). The substitution by which data calls that would otherwise go over the switched voice network are being routed through packet switches is growing rapidly. In the past three years, the number of known CLEC packet switches has increased tenfold, from 860 to more than 1700. (Fact Report at II-2). The FCC has already declared packet switching sufficiently

competitive that it should not be subject to mandatory unbundling.[8] As those switches have come increasingly to compete directly with circuit switching, the latter, too, face genuine competition. Given that CLECs are not impaired without access to unbundled packet switching, the case for impairment without access to circuit switching vanishes as packet switches increasingly become a substitute for circuit switches.

57. While existing competition between circuit switches and packet switches is reason enough to include both in the same product market, the case becomes even more powerful when one looks only a short time forward. Packet-switched data lines are growing very fast. Much of this growth is over cable networks and needs no access to any part of the ILECs' systems. More and more of total telecommunications traffic is thus being packet switched.

58. This substitution of packet for circuit switching is not limited to data traffic. Many data communications substitute directly for voice, as in the case of e-mail and instant messaging. But as the Fact Report details at part II.B, packet switching is also becoming increasingly suited to voice traffic itself. For example, many businesses are converting their internal telephone systems to voice-over-IP technology that sends voice traffic over a company's intranet. As packet technology for voice develops, the substitution will grow dramatically. Data traffic, which dwarfs voice traffic, will drive the continuing shift to packet technology and will motivate migration of voice traffic to the same, increasingly dominant, packet switched networks. All of these changes, which are already in progress and which will transform the balance of switching technology in the foreseeable future, counsel considering packet and circuit switching as technologies that compete in the same market.

3. Switching Appears Yet More Competitive in Light of Wireless Competition

[8] UNE Remand Order, ¶¶ 306, 308. Despite that correct conclusion, the FCC nonetheless retained a requirement that carriers must unbundle packet switching if the ILEC has deployed DLC, there are no spare copper facilities available, the ILEC has deployed its own packet switching, and the incumbent has not permitted a requesting carrier to collocate. Id. at ¶ 313.

59. Finally, it must be recognized for the purposes of any thorough competitive analysis that wireless services significantly reduce the need for a customer's traffic to pass through any wireline switch, whether circuit or packet. Many residential customers who would otherwise purchase a second wired telephone line instead use wireless service, and a growing number are dispensing with wireline service altogether, relying entirely on wireless service instead. The number of wireless subscribers is fast approaching the number of wireline subscribers. There are now an estimated 130 million wireless subscribers versus about 190 million wireline subscribers. (Fact Report at II-3). Importantly, the former group is still growing fast while the latter is not. All wireless traffic is switched, and even if one eliminates from the count of wireless switches all those belonging to ILEC affiliates, there are now an estimated 950 independent wireless end-office switches deployed nationwide. Wireless already constitutes an estimated 12 percent of all phone calls in the U.S. (Fact Report at II-3), a percentage that is likely to grow as wireless data services grow and improve and as wireless subscriptions grow.

B. Inter-office Transport Has Also Become Competitive and Subject to Facilities-Based Entry

60. There are two principal reasons that inter-office transport no longer needs to be unbundled. First, there are now competitive sources of fiber transport. Second, the economics of inter-office transport are such that competitive local exchange carriers can economically build their own transport and would not be competitively impaired if they could not use the ILECs' transport facilities. The empirical data demonstrate that CLECs have increasing options for purchasing transport from third parties and that they are also building their own transport facilities.

1. Competitive Transport Providers

61. In metropolitan areas, there is a group of firms who have entered the telecommunications market solely at the level of transport. These firms, sometimes

called competitive fiber providers, have constructed fiber rings that transport their end-user's traffic both to long-distance carriers' POPs and to ILEC central offices. Although the data is not yet clear on what percentage of customers can be served through such alternative transport networks, the fact that they are being built and expanded demonstrates that the transport market is subject to entry and that the ILECs' transport facilities do not constitute an economic bottleneck to local exchange competition. In addition to the competitive fiber providers, a number of utility companies and interexchange carriers have substantial fiber networks that they use to supply transport to CLECs. (Fact Report part III, tables 6-7). This group of third-party fiber providers offers CLECs an important source of interoffice transport that neither obligates them to build their own facilities nor makes them dependent on the ILECs.

2. CLECs' Transport Facilities

62. A conservative measure of whether CLECs are installing their own transport facilities can be had from the amount of fiber-based collocation in ILEC central offices. At present, ILEC data show collocated fiber in central offices serving 44 percent of all ILEC access lines. (Fact Report at III-3, table 1.) This evidence is compelling. If there is competitive transport to central offices through which an entrant can reach nearly half of the incumbents' customers, then it is unlikely that there is any impairment to entry into those markets without access to the ILECs' transport lines.

63. In addition to what the data show about where CLECs have already obtained fiber-based collocation, the evidence strongly suggests that entrants have the ability economically to construct transport facilities in many additional wire centers. The fact that CLECs have built competitive transport to many ILEC central offices with high concentrations of business lines suggests that they economically could do so to the rest of those offices where fiber-based collocation does not yet exist. (Fact Report at III-4, table 3). The data strongly indicate that CLECs are not impaired in their ability to obtain interoffice transport in the absence of unbundling for most of the lines they have demonstrated any intent to serve.

64. The conclusion that CLECs no longer face any impairment in obtaining interoffice transport becomes all the stronger when one considers that the fiber-based collocation measure of transport competition does not even account for the traffic that bypasses the ILECs' networks altogether. There are now an increasing number of firms providing alternative points of traffic concentration in most major markets and a growing proportion of competitive transport runs between such competing interconnection points rather than through ILEC wire centers. The growth of such facilities is documented in detail in part III of the Fact Report.

65. In the end, transport has become a market populated by various, overlapping options for carriers. In addition to the incumbents' network, there now exists a combination of CLEC fiber collocated at ILEC wire centers, CLEC fiber collocated at alternative points of traffic aggregation, and third party fiber facilities. Taken together, these alternatives demonstrate that competitive transport is no longer dependent on CLECs' access to the ILECs' facilities.

C. Loop Competition Reinforces Competitiveness of Other UNE Markets

66. In the three years since the Commission's last UNE review there has been a significant increase in competitive provision of loops. The degree of such competition varies by geographical area and by type of loop and customer. Changes in the loop market have two important consequences for unbundling policy. The first is a direct effect on loop unbundling: for certain kinds of loop facilities, specifically high-capacity loops, the market data show that unbundling is no longer necessary. The second effect is less direct: loop competition, even where it is not sufficient to warrant a repeal of unbundling, adds to the proportion of traffic that is moved off of the ILECs' other network facilities such as switches and transport links. In other words, loop competition not only weighs against unbundling of loops themselves, but strengthens the already compelling case for eliminating unbundling of switching and transport.

1. The Market for High-Capacity Loops is Competitive

67. The most significant facilities-based entry into customer access lines has been in the market for high-capacity loops. Numerous CLECs have constructed their own DS-1 and higher lines to serve buildings where businesses are concentrated. CLECs serve between 11 and 19 million business lines over their own last-mile facilities, many of which are high-capacity loops. (Fact Report at IV-2). The above figures understate the true state of competition in high-capacity loops. They do not count the facilities of all CLECs and do not include loops owned by third party fiber providers and leased by CLECs.

68. As in the case of competing inter-office transport, the high-capacity loops that already exist form the base off of which those facilities may be expanded incrementally and economically to areas where businesses are less concentrated and to the premises of smaller customers. Existing facilities also demonstrate the feasibility of competing loops where similar high-capacity customers exist but are not yet competitively served. In addition, special access provisions offer an alternative to unbundling for obtaining high capacity loops for those firms that do not wish to build out their own facilities.

69. Whereas CLECs have proven willing and able to construct their own high-capacity loops, they have made little use of unbundled high-capacity lines. As the Fact Report shows at IV-7, table 2), CLECs have made almost no use of unbundled loops with capacity higher than DS-1 and serve most of their DS-1 customers with their own facilities rather than over unbundled loops.

70. While the Commission also needs to carefully evaluate the need to unbundle other types of loops in circumstances where there are obvious competitive alternatives (such as in areas whose cable companies are providing telephone service over their own networks), the above facts make an especially strong case for eliminating the

unbundling of high capacity loops. There is clearly no difficulty in providing service over such lines even without any resort to the ILECs' facilities. It would turn the idea of "impairment" on its head to maintain unbundling for high capacity loops; for to do so would be to maintain a back-stop alternative for CLECs that they do not need economically to provide the facilities at issue without competitive disadvantage. As part I of this paper discusses, maintaining such an option where it is not needed may have significant costs for consumers and for competition.

D. Inferences to Be Drawn From the Empirical Evidence

71. The empirical evidence presented in the Fact Report provides a clear picture of the emergence of competitive facilities in all the most important UNE markets. The evidence against impairment is extremely strong for switching, for high-capacity loops, and for interoffice transport. Yet in each of the UNE markets just mentioned, there may be some classes of end-user customers and some geographic areas that are not served over competitive facilities. In other words, some strict standard of "ubiquity" might not be met for even those network facilities that are easily supplied on a competitive basis. If unbundling policy is to be economically sound and to benefit consumers and competition, it is important that such perceived gaps in UNE competition not overshadow the competitive significance of entry where it has occurred and thereby improperly drive unbundling policy. There are two broad reasons that greater weight should be given to the evidence of where UNE competition has developed than to the evidence of where it has not.

72. First, the fact that CLECs are in some cases supplying their own facilities or procuring them from third parties demonstrates that competitive provision of the element at issue is economically feasible. That in itself weakens any argument for impairment. When a substantial number of CLECs are deploying facilities other than UNEs, and when those facilities serve or potentially serve a large proportion of access lines, then the impairment argument is not merely weakened but unsupportable. In such circumstances, the widespread use and availability of competing facilities should

raise a presumption that ubiquitous deployment is feasible. Under such circumstances, CLECs' decisions not to deploy their own facilities are likely driven either by decisions not to serve certain end-user customers or by preferences for unbundled access even though lack of such access would not be a true competitive impairment. It bears emphasis that the point of unbundling is not to free CLECs from incurring the same costs as the ILECS or undertaking the same activities the ILECs must engage in to provide service. The issue is whether the CLECs are competitively impaired compared to the ILECs without unbundling, not whether unbundling is advantageous compared to other entry paths.

73. Second, an absence of competitive facilities or continued use of UNEs may be the product of many factors that have nothing to do with the ability of CLECs economically to supply their own facilities. Regulation of end-user rates will make some customers more desirable than others and affect the entry strategies of competitive carriers. As already discussed, the rates for unbundled network elements will affect the comparative advantage of entering over one's own facilities or over the ILECs' networks. Predictions about changes in technology or in the services that customers demand will also influence a CLECs' investment decisions. This list is not intended to be exhaustive, but merely to point out that there are numerous forces other than impairment that can explain gaps in the provision of competitive local exchange facilities.

74. For the above reasons, the Commission should be very cautious about accepting arguments based on lack of "ubiquity" in support of continued unbundling. The existence of competing facilities unambiguously demonstrates the feasibility of facilities-based entry. The absence of such facilities in some markets or for some customers, when competing facilities are elsewhere widely available, only questionably and ambiguously suggests impairment. Where the evidence shows facilities-based entry, the logical inference is that entry is feasible in markets with similar characteristics but where CLECs may not yet have chosen to enter. The

burden should rest with the CLECs to demonstrate that lack of entry is indeed due to specific market characteristics that create impairment.

75. As the previous section of this declaration discussed in detail, there are potentially high social costs of unwarranted unbundling. The economic inferences that drive unbundling policy should be therefore grounded in the empirical evidence of the development of significant, even if not highly ubiquitous, competition in a network element market. As the earlier discussion explained, such evidence should presumptively counsel the repeal of mandatory unbundling of that element. The evidence surveyed in this section and set forth in detail in the Fact Report convincingly support a strong presumption against further unbundling of switching, interoffice transport, or high-capacity loops.

IV. Conclusion

76. The empirical evidence of local exchange competition and of the UNE alternatives available to CLECs soundly rebuts claims of impairment with regard to switching, inter-office transport, and high-capacity loops. Given the substantial risks that unbundling creates for telecommunications consumers and for the competitive process, the Commission should adopt a strong presumption against unbundling of these elements. It should not be enough to prove impairment for a CLEC to show that UNE alternatives are not in fact being used in a particular market. Where the empirical evidence shows that non-UNE entry *could* occur unimpaired in a particular market, perhaps because it has so occurred in markets with similar characteristics, the inference should be drawn against the need for unbundling. Without such reasonable inferences, unbundling will occur where impairment does not truly exist. Such an outcome will reduce the scope of competitive benefits produced by the local exchange markets, punish CLECs or third-party providers who have invested in their own facilities, and compromise the ultimate economic objectives of the 1996 Act.

Certification

I hereby certify that the statements and information contained in my declaration are correct and true to the best of my knowledge.

Howard A. Shelanski 4/4/02

Howard A. Shelanski