

physical and virtual collocation nodes in Bell Atlantic's central offices, giving them access to most of the access lines served by Bell Atlantic.

Third, requiring unbundling of advanced services equipment is exactly the type of access that AT&T has argued so vehemently that it should not be required to give over its cable television lines. "No company will invest billions of dollars to become a facilities-based broadband services provider if competitors who have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride on the investments and risks of others." C. Michael Armstrong, *Telecom and Cable TV: Shared Prospects for the Communications Future*, speech delivered to Washington Metropolitan Cable Club, Washington, D.C. (Nov. 2, 1998). Even AT&T's economists argued against unbundling of broadband lines: "[f]orced unbundling with its attendant regulatory uncertainty would likely slow down the investment in the development of broadband last mile data transport." Declaration of Professors Janusz A. Ordover and Robert W. Willig at ¶ 49, attached to AT&T's and TCI's Joint Reply to Comments and Joint Opposition to Petitions to Deny or To Impose Conditions, *Joint Application of AT&T Corp. and Telecommunications, Inc. for Transfer of Control to AT&T of Licenses and Authorizations Held by TCI and its Affiliates or Subsidiaries*, CS Docket No. 98-178 (Nov. 13, 1998).

B. The Commission Should Not Require Line Sharing or Spectrum Unbundling.

A few parties ask the Commission to require line sharing or spectrum unbundling in this proceeding. *See, e.g.*, Network Access Solutions, Inc.'s Comments at 20. The Commission should not do so.

First, there are important policy reasons why the Commission should not require line sharing or spectrum unbundling. As Dr. Crandall explains, “[i]f ILECs are required to share their lines with entrants at TELRIC rates, these entrant will have far less incentive to deploy alternative technologies – such as those using terrestrial wireless or satellite circuits – thereby reducing the degree of competition in the advanced-services marketplace.” Crandall Reply Declaration ¶ 27.

Second, some of the proponents of line sharing argue that they are caught in a “price squeeze” when they try to offer only data services over a loop and do not offer any voice services over that same loop. *See, e.g.,* NorthPoint Comments at 15. But the Commission has already considered and rejected that argument.

[I]t is not clear that fear of a price squeeze is well-founded. Northpoint’s argument is premised on its assertion that GTE’s rate for its ADSL service ‘is less than the price it charges competitive LECs for the loops, collocation and transport necessary to provide DSL service,’ but this is not an apt comparison. When a requesting carrier purchases these unbundled network elements, the facilities in question are capable of supporting a variety of services in addition to ADSL, such as local exchange service and access services. *Competitors need not recover their costs from ADSL service alone; they have the same opportunity as GTE to recover the costs of network elements from all of the services they offer using those facilities.* Thus, a carrier choosing to offer only data service over a facility that is capable of carrying more, such as GTE’s ADSL offering, may not reap the entire revenue stream that the facility has to offer.

In the Matter of GTE Telephone Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148, CC Docket No. 98-7 at ¶ 31 (rel. October 30, 1998)(emphasis supplied). And as Professor Kahn explains, the Commission’s reasoning is entirely sound from an economic perspective.

CLECs offer the ... contention that the ILEC does not necessarily impute to itself or to its own xDSL operations and offerings any part of the cost of the loop, presumably because its marginal cost for this new usage is something close to zero; and a similar availability of the loop to them at similarly low-to-zero

marginal cost would therefore do no more than put them on an even competitive footing. The response is that in competitive market sellers do not price on the basis of "imputed" common costs, when these costs must be recovered either in the form of fixed customer charges or on the basis of what the respective services produced with the aid of the inputs will bear. Competitive parity would therefore require that both sets of rivals bear the same loop costs, each recovering them in either of those two ways – not that one set of rivals be totally exempted from them, as the proponents of what is deceptively labeled "line sharing" would have it.

Kahn Reply Declaration at 15-16.

Third, the Commission has already solicited comments on this issue in a separate proceeding, and those comments are due later this month. *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Further Notice of Proposed Rulemaking (rel. March 31, 1999). No purpose would be served by addressing the same issue in two separate rulemaking proceedings.

C. The Commission Should Not Require Unbundling of Loop and Transport Combinations or Permit Conversions of Special Access Services to Unbundled Network Elements.

Some carriers ask the Commission to require incumbent carriers to provide loops and transport elements in preassembled combinations on a ubiquitous basis. *See, e.g.*, Joint Comments of e.spire and Intermedia at 28. They really just want to substitute these network element combinations for already competitive high capacity special access services. This request should be rejected for the same reasons the Commission should reject requests for the UNE Platform.

Where the statutory standard for unbundling an element is not met, the Commission cannot require incumbents to provide that element either individually or in combination with other elements. As Bell Atlantic has already shown (Bell Atlantic

Comments at 26-32; *supra* at 11-14), competitive alternatives for transport and high capacity loops already exist in many areas for medium and large business customers. At a minimum, these elements do not satisfy the statutory standard for unbundling in these areas.

Requiring incumbents to provide combinations of transport and high capacity loops where competitive alternatives already exist will discourage investment in those network facilities. As Dr. Crandall explains, “[i]t is also important that the Commission not require the combination of certain elements, such as local loops and transport, because such a requirement will surely reduce incentives for competitors to deploy the elements separately.” Crandall Reply Declaration ¶ 26.

E.spire and Intermedia also make a related argument to the Commission. They ask for “rules requiring ILECs to convert special access circuits to equivalent UNEs (or UNE combinations) after approval of an interconnection agreement between the CLEC and ILEC.” E.spire/Intermedia Comments at 34. There is no basis for the Commission to do so.

Competing carriers have offered transport services on a competitive basis for at least 14 years and now have access to approximately *90 percent* of the Bell Atlantic’s transport customers. Since this competitive market developed well before the Telecommunications Act, these carriers provided their transport services without using any of the incumbent’s unbundled network elements. The Commission’s *Expanded Interconnection* regime gave competitors what they needed to compete in this market and provided the appropriate incentives for competitors to build their own competing transmission facilities and to deploy their own transmission equipment in collocation

arrangements. In fact, the Commission's *Expanded Interconnection* regime made collocation available to "all parties who wish to *terminate their own special access transmission facilities* at LEC central offices." *Expanded Interconnection with Local Telephone Company Facilities*, 7 FCC Rcd 7369, ¶65 (1992) (emphasis supplied). Competing carriers did not then and do not now need access to the incumbent carriers' interoffice transport facilities or high capacity loops on an unbundled basis to provide special access services.

In fact, not only do *90 percent* of Bell Atlantic's special access customers have competitive alternatives available, but they are also making extensive use of those alternatives. By the beginning of 1998, competitors were using their own networks to provide approximately 30 percent of the high capacity special access services in the Bell Atlantic region and up to 50 percent in key business centers. And these figures have no doubt increased in the last year. The Commission should therefore not allow competing carriers to displace existing special access circuits with unbundled network elements or combinations of elements.

D. The Commission Should Not Require Dark Fiber Unbundling.

AT&T, MCI WorldCom and several other carriers ask the Commission to require incumbent carriers to unbundle fiber strands that are not used to provide telecommunications services ("dark fiber"). The Commission decided not to require dark fiber unbundling when it first promulgated its network element rules and these carriers do not show how the facts have changed in the last three years to justify reversal of the Commission's prior decision.

As a preliminary matter, dark fiber does not even qualify as a “network element” under the Act. A network element “means a facility or equipment used in the provision of a telecommunications service.” 47 U.S.C. § 153(29). A “telecommunications service,” in turn, is defined in the Act as the “offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.” 47 U.S.C. § 153(46). The term “telecommunications” is further defined in the Act as the “transmission, between or among points specified by the user, of information of the user’s choosing, without change in the formal content of the information as sent and received.” 47 U.S.C. § 153(43).

The United States Court of Appeals for the Eighth Circuit in *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 808 (8th Cir. 1997), emphasized that to qualify as a network element, equipment must be used in the overall commercial offering of telecommunications, i.e., in the provision of service for a fee to the public. As the Court explained: “We believe that the FCC’s determination that the term ‘network element’ includes all the facilities and equipment that are used in the overall commercial offering of telecommunications is a reasonable conclusion and entitled to deference.” 120 F.3d 808-09.

The FCC also has addressed the statutory definition of “telecommunications service” in the context of its review of SBC Communications, Inc.’s application to provide interLATA services. The FCC, like the Eighth Circuit, explained that the provision of telecommunications service requires that there be a payment of a fee for the rendered service or offering. The FCC observed that:

The statutory definition of “telecommunications service” requires the offering of service “for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the

facilities used.”...The Commission has previously stated that the phrase “for a fee” in Section 153(46) of the Act “means services rendered in exchange for something of value or a monetary payment.”

Application of SBC Communications to Provide In-Region InterLATA Services in Oklahoma, 12 FCC Rcd 8685 at ¶ 17, fn 64 (1997).

Dark fiber does not qualify as a network element because it is not used to provide telecommunications service. Without any electronics connected to dark fiber, no information is or can be transmitted over dark fiber. Nor is dark fiber used in the commercial offering of telecommunications, i.e., for a fee directly to the public.

State regulatory commissions in New York, New Jersey, Pennsylvania, Maryland, Virginia and the District of Columbia have rejected claims that dark fiber constitutes a network element under the Telecommunications Act. Exhibit 3. In essence, the commissions generally concluded that dark fiber is not “used in the provision of a telecommunications service” (and thus does not rise to the level of a network element as defined in the Act); that failure to provide access would not impair the ability of the requesting carrier, compared with the carrier’s use of other unbundled elements; and that operational difficulties could reasonably arise. In New York, for example, arguably the most intensely competitive telecommunications market in the world, the Commission found that “dark fiber is not an element” and that BA-NY is “not in the business of providing facilities” as opposed to services and service networks “to competitors. Such a requirement could interfere unreasonably with New York Telephone’s investment and construction plans.” *Petition of AT&T Communications of New York for Arbitration of an Interconnection Agreement with New York Telephone Company*, Case No. 96-C-0723, Opinion No. 96-31 at 69 (NY PSC Nov. 29, 1996).

In addition to the six decisions cited above, state regulatory commissions in other pro-competitive states have similarly concluded that dark fiber need not be made available under the Act. California, Florida, Indiana, Louisiana, North Carolina and Mississippi have all so held. *Application of MCI Telecommunications Corp. for Arbitration with GTE California, Inc.*, No. 96-09-012, at 34 (Cal. PUC Sept. 10, 1996) (“Since dark fiber is not used to provide telecommunications services, . . . GTEC shall not be required to unbundle its dark fiber.”). *Petition for Approval of Transfer*, 96 FPSC 12:507 at 525-26 (1996); *Petition of AT&T Communications of Indiana*, 1996 Ind. PUC LEXIS 427 at 40-41 (1996); *AT&T Communications of South Central States, Inc.*, 1997 WL 19108 at 24-25 (La P.S.C. 1997); *MCI Telecommunications Corp.*, 1997 WL 233032 at 9-10 (N.C.U.C. 1997).

Furthermore, the United States District Court for the Eastern District of Virginia (Richmond Division) recently ruled, as a matter of law, that Bell Atlantic is not required to make dark fiber available to requesting carriers because it does not constitute a network element within the meaning of the Telecommunications Act. *MCI v. Bell Atlantic-Virginia*, Civil Action No. 3:97CV629 (E.D.Va. July 1, 1998).

Even if dark fiber were a network element under the Act, it does not meet the statutory standard for unbundling. That is because of the availability of alternative transport services and facilities.

First, as explained above, competing carriers have already deployed hundreds of thousands of miles of fiber optics. In the areas where fiber has been deployed, competitors are not impaired in providing competitive telecommunications services by not having access to the incumbents’ dark fiber.

Second, alternative providers will provide dark fiber to carriers on a wholesale basis. For example, Metromedia Fiber Network Services, Inc.'s "business is focused on providing extremely high-bandwidth, fiber optic communications infrastructure, including 'dark' fiber, and related services to communications carriers and corporate/government customers." Metromedia Comments at 1. In addition, electric, gas and water utilities are offering dark fiber along their existing networks, rights of way, poles and conduit.

As recently 1997, UTC's members reported that they had deployed an average of 359.3 route miles of fiber cable. . . . Overall, as of 1997, utilities had installed 40,000 route miles of fiber optic cable representing over 750,000 fiber miles, and they indicated an intent to install another 36,000 route miles within the next three years. In addition to utilities, non-incumbent local exchange carriers reported in 1997 that they had deployed 1,861,413 miles of dark fiber. These statistics demonstrate the existence of widespread deployment of alternative sources of inexpensive dark fiber.

UTC Comments at 3. It is for these reasons that these alternative providers oppose any dark fiber unbundling requirement.

It is unnecessary to unbundle dark fiber, because it is widely available from alternate sources. Nor will it impair the ability to provide local exchange service if requesting carriers do not have access to dark fiber from an incumbent carrier, because dark fiber is a thinly-margined service that is already available to competing carriers at or near cost.

UTC Comments at 1.

Third, any carrier can deploy its own fiber by using Bell Atlantic's poles, ducts, conduit and rights of way. In fact, competing carriers can hire a contractor to install the fiber on the poles or pull it through the ducts.

VI. Conclusion.

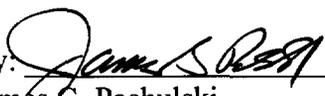
AT&T and MCI WorldCom would like the Commission to ignore the fact that competing carriers have widely deployed their own local network facilities and are using them to provide local telephone service on a competitive basis. They want the Commission to adopt unbundling rules that would give them access to every imaginable network element, anywhere, anytime, and in any combination.

The Commission should reject the extreme position propounded by AT&T and MCI WorldCom and take a balanced approach to promote efficient and dynamic competition, rather than fostering or protecting individual competitors. This approach will encourage investment in competing facilities by new entrants and incumbents alike. While competing carriers are entitled under the Act to obtain access to network elements that they truly need to get into the local market and compete, they do not need access to individual elements where competitors already have deployed their own or where the elements are available from alternative sources.

Respectfully submitted,

Of Counsel

Michael E. Glover

By: 
James G. Pachulski
1320 North Court House Road
Eighth Floor
Arlington, VA 22201
(703) 974-2804

Attorney for the Bell Atlantic
Telephone Companies

Dated: June 10, 1999

KAHN
Reply Declaration

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

In the Matter of)	
)	
Implementation of the Local Competition)	CC Docket No. 96-98
Provisions in the Telecommunications Act)	
of 1966)	

**REPLY DECLARATION OF ALFRED E. KAHN IN RESPONSE TO
SECOND FURTHER NOTICE OF PROPOSED RULEMAKING**

I. INTRODUCTION AND SUMMARY

1. My name is Alfred E. Kahn. My qualifications are set out in my initial submission in this proceeding.

2. The purpose of these comments is to reply to:

- the Affidavit of Professors Hubbard, Lehr and Willig (filed as Exhibit C to AT&T's Comments), and the Declaration of Professor Kwoka (filed as Exhibit C to MCI WorldCom's Comments), previously submitted in this proceeding;
- the demands of Rhythms Netconnections and Northpoint Communications that the subscriber loops the Commission has identified as subject to mandatory unbundling under Section 251 of the Telecommunications Act be themselves subject to additional unbundling, so as to permit them to use only the high-frequency portion of the spectrum; and

- the demand of e.spire Communications, Intermedia Communication and ALTS that ILECs be required to provide them enhanced, expanded loops—“EELS”—in effect “platforms” composed of loops and dedicated transport facilities, at rates set in compliance with the Commission’s TELRIC prescription.

II. MY ORIGINAL DECLARATION

3. In explaining why the statements of the aforementioned economist witnesses are in my opinion not responsive to the instructions of the Supreme Court, in terms of the pertinent economic principles, it will be efficient for me first to summarize my characterization of those principles in my original submission:

- There is an inherent tension between the two generic routes to competitive entry envisioned by the Act—non-facilities based (via resale and lease of UNEs from the incumbent LECs) and facilities-based: the more liberal the definition of UNEs and the more attractive the prescribed prices, the greater the discouragement to facilities-based entry by CLECs and investment by ILECs as well.
- While recognizing the necessity of keeping the former route open, particularly on a transitional basis, it is essential that the Commission keep in mind the primacy of the latter, risk-taking investment, as the superior form of competition.
- This tension is aggravated by the method of pricing UNEs mandated by the Commission:

Why incur the risks of constructing one’s own facilities if one can instead acquire them at a price that regulators ... have determined would be the cost of an ideal efficient provider?” (p. 13)

- These considerations argue for strict application of the competitive principles underlying the essential facilities doctrine—namely, that a firm may not acquire mandatory access to a competitor’s products or facilities unless it cannot compete effectively without them—element-by-element and market grouping-by-market grouping, with the actual experience of CLECs obtaining the UNE elsewhere in a relevant market sufficient to justify exclusion of it from the list and with markets defined both geographically and by class of customers.
- The conflict of this approach with demands for an entire platform: the obligation to offer a “platform” can be justified only if each and every element qualifies under the foregoing criteria.

III. THE POSITIONS OF AT&T’S AND MCI’S ECONOMISTS

4. The assertions of the aforementioned economists essentially ignore the above-described tensions or conflicts and minimize the danger of excessive encouragement of free-riding by CLECs:

- by emphasizing all the asserted inherent disadvantages of CLECs,¹ stemming from the assertedly lesser availability to them of economies of scale and scope. In so doing, they completely overlook comparable and in some respects superior economies available to their clients—e.g., their ability to bundle long-distance with local services, their national brands, their sheer size, their ability to take advantage of more efficient

¹ Fairly consistently the AT&T economists refer to asserted disadvantages of “a CLEC.” Manifestly, the fact that *individual* CLECs may be handicapped is irrelevant to the possibility of *competition* as an effective force in the market.

technologies or network configurations and their already dominant positions in cable, wireless and long-distance service;

- by asserting that the CLECs will typically prefer to use their own facilities—in order to avoid exposure to discrimination and disputes over it, as well as the asserted obligation to disclose competitively sensitive information;
- by asserting that UNEs are an “absolute precondition” to facilities deployment—which is clearly far from true, as I will proceed to document;
- by asserting that entry via UNEs has served, historically, as a transition to facilities-based entry (Kwoka, p. 9). In reality, competition in both local and long-distance service has developed preponderantly through the use of resale, facilities construction and mandatory interconnection with the incumbents. The unbundling required by the Act is unprecedented;
- by simply ignoring the effect of the unprecedented, particular pricing standard for UNEs adopted by the FCC in aggravating the problem. Significantly, Professor Willig in another context explicitly rejected the applicability of TELRIC, as defined by the FCC, as incompatible with risky investment and innovation by AT&T, advocating instead (if—contrary to his urgent advice—it were to be required to share these facilities with competitors) a much more generous standard for the price that that Company would be permitted to charge for access to the broadband facilities it has since acquired from TCI: supply cost plus *full opportunity cost*.² In short, the AT&T

² Declaration of Professors Janusz A. Ordover and Robert W. Willig, attached to AT&T’s and TCI’s Joint Reply to Comments and Joint Opposition to Petitions to Deny or to Impose Conditions, *In the Matter of Joint*

and MCI economists in this case—in contrast with the case involving FCC approval of the AT&T/TCI merger—almost completely ignore the prerequisites of risky investment in innovation.

- Moreover, they do not explicitly respond to my central contention—namely, that it doesn't make sense to require availability of UNEs that are in fact being provided or obtained in other ways in the relevant market.

5. In this connection, Hubbard et al. simply *assert* that an inability of CLECs to have access to UNEs would be prohibitive of entry because the CLECs will have an inherent cost disadvantage; and they simply *assert* that

In the long run, unbundled network elements should encourage, and certainly will not discourage, facilities-based competition. (p. 14)

In so doing, they ignore my contention that it is difficult to imagine a pricing standard for UNEs that the FCC could have adopted that would be more likely to encourage free riding and discourage CLECs investing in their own facilities.

Moreover, their explanation of why

in theory, the availability of UNEs at TELRC means that CLECs incur costs similar to those of the incumbent LEC in providing local services. (p. 14)

flatly contradicts itself. In the very next sentence, they go on to explain:

this is because, by its definition, TELRC is supposed to match the incumbent LEC's "economic costs" of providing the network elements necessary to provide local services. (p. 14)

Application of AT&T Corp. and Tele-Communications, Inc. for Transfer of Control to AT&T of Licenses and Authorizations Held by TCI and its Affiliates or Subsidiaries, CS Docket No. 98-178, November 13, 1998. Ordovery and Willig provided a very expansive definition of full opportunity cost. It would account for not only foregone net revenues but also the reduced value of investment consequent on losses in indirect revenues.

Observe the sleight-of-hand exercised here: the FCC's prescribed pricing is said to impose on the CLECs costs "*similar* to those of the incumbent LEC," yet the TELRC-prescribed prices are "supposed to match" not the ILEC's *actual* forward-looking costs but, by design, the putatively lower "economic costs" of providing the network element with maximum efficiency.

6. In short, in this statement these economists fail to explain how the FCC's prescriptions translate into an inherent cost *disadvantage* for the CLECs and on what basis they assure us that the FCC's present rules "certainly will not discourage facilities-based competition." *By design*, the FCC's prescribed pricing method is expected to result in charges *below* the forward-looking costs of the ILECs themselves, on the basis of the expectation that the latter costs incorporate inefficiencies—that is, by the FCC's own reasoning, it is the ILECs that would have the cost disadvantage!³ Hubbard et al., particularly, almost totally ignore the actual market behavior of CLECs generally, and their own client, in particular. They attribute to the Eighth Circuit responsibility for the "fact" that "*no* such competition" in providing services in "local mass markets" "has developed in the ensuing three years." (pp. 4-5) Kwoka is guilty of almost as glaring an oversight: "With isolated exceptions, facilities-based entry is prohibitively expensive and time consuming," with investment costs "staggeringly high" (p. 6).⁴

³ In this connection, also, their assertion that the FCC-prescribed charges would assure the ILEC a competitive return on invested capital (p. 18) ignores that explicit expectation of the FCC: the allowance for return is only on new investment by an ideally-efficient competitor, which, by the assumption of both the FCC and the IXC-advocates of the ideally-efficient-firm TELRIC standard, the ILECs are not. The FCC has suggested in the context of its universal service proceeding that the level of return allowable in TELRIC should be limited to the previously-authorized 11.25 percent and FCC-prescribed depreciation—rather than economic depreciation—rates should be used—the same rates as it applied in the monopoly era and clearly below the rates suitable for investment by CLECs in the new competitive environment.

⁴ Their fundamental failing, perhaps, is the assumption that entry will come in the form of a duplication of the ILECs' narrowband networks. Real entry, of course, has taken quite a different course. For example, in Dr.

7. Contrast their statements here with what happened during these very years:

- Less than one year ago, AT&T acquired Teleport, one of the largest operating CLECs, at a cost of \$11 billion, upon completion of which acquisition it announced:

Completion of this merger accelerates our entry into the \$21 billion business local service market because we're reducing our dependence on the Bell Companies for direct connections to businesses,' said AT&T Chairman C. Michael Armstrong. ... "We're giving customers simplicity, convenience and choice. It's one-stop shopping for local and long-distance service, just for starters," he said. ...

TCG has more fiber route miles and serves more businesses in more cities than any other competitive local service company," Armstrong said. "The strategic value of this merger...positions AT&T for growth and undisputed leadership in three of the fastest growing segments of the communications services industry—consumer, business and wholesale networking services.

TCG, with more than 10,000 miles of fiber optic cable and 50 local switches, is the nation's premier provider of competitive communications services. Its network encompasses more than 300 communities coast to coast. Armstrong said that AT&T also pledges to devote substantial resources to continue the building of facilities in critical markets.⁵

- MCI made a similar major commitment by entering into a mammoth, \$37 billion merger with WorldCom, which substantially expands its local exchange presence, because of WorldCom's previous acquisition of the largest operating CLEC, MFS. Just as in the case of AT&T, announcement of that merger was accompanied by confident proclamations of the way in which it would strengthen the ability of the partnership to provide local exchange service with its own facilities:

Bryant's Declaration (filed as Exhibit D to MCI WorldCom's Comments), his calculations from the HAI model suggest that loop facilities are uneconomic in high density areas such as Manhattan. Yet, AT&T paid \$11 billion for TCG's loop facilities and switches in these areas.

⁵ "AT&T Completes TCG Merger; TCG Now Core of AT&T Local Services Network Unit," AT&T News Release, July 23, 1998, emphasis added.

The largest expense for MCI, as a long-distance carrier, had been fees paid to local phone companies for beginning and ending calls.

MCI WorldCom now wants essentially to eliminate those fees for business customers who use the company for local and long-distance calling. For a conversation or data message that travels exclusively on MCI WorldCom's network, rates could decrease by as much as 35 percent, the company said.⁶

- These new facilities-based CLECs are by no means limited to the major long distance companies. As of March 1999, over 150 CLECs had installed 724 switches throughout the U.S.: the corresponding figures were 139 at the end of 1996 and 328 at the end of 1997.⁷ In addition, there are at least 31 ventures by private electric utilities into telecommunications, making use of their rights-of-way, excess fiber capacity⁸ and large capital reserves, which make the telephone and/or cable markets appealing to them.⁹ These companies offer both wholesale and retail services: in opposing the designation of dark fiber as an additional UNE, UTC reports that 30 of its members provide dark fiber to third parties, thus offering a direct alternative to ILEC facilities.¹⁰
- As the growth in the number of switches demonstrates, the operations of the CLECs collectively, and of individual CLECs particularly, have been expanding robustly. The president of their trade association at the time informed the FCC that they had provided

⁶ Seth Schiesel, "FCC Blocks Two Bells on Long-Distance Entry," *The New York Times*, September 29, 1998.

⁷ Joan Engebreston, "The New Guys in Town," *Telephony*, June 2, 1997, pp. 98-110. New Paradigm Resources Group, *Review of the Annual Report on Local Telecommunications Competition*, March 1998, p. 2. The March 1999 figures are based on the Bellcore *Local Exchange Routing Guide*.

⁸ For example, SCANA Corp., the parent company of South Carolina Gas and Electric, controlled 2,500 route miles of cable fiber back in 1995 through its subsidiary MPX Systems, Inc., and was planning to double that. "Growing Utility Fiber Market Tempered by Considerable Hesitancy," *Fiber Optics News*, Vol. 15, No. 19, May 15, 1995.

⁹ In addition, we have identified 24 such ventures by municipally owned electric utilities, preponderantly offering video service.

1.5 million access lines by the end of 1997, reflecting a 2½-fold expansion in that year, and that she anticipated another more than doubling in 1998—an expectation that was actually exceeded by the 4.5 million CLEC lines in service at the end of that year.¹¹ Indeed, in 1998, Salomon Smith Barney reported that the expansion of CLEC access lines for business customers actually exceeded that of the ILECs for the first quarter of that year.¹² At that time it also reported that these firms might well attain a double-digit market share for business access by 1999—approximately the same share as IXC's other than AT&T, MCI and Sprint had attained by 1993, at which time, Professors Hubbard and Lehr have argued, their presence was sufficient to constrain any market power of the “Big 3.”¹³

- Investors clearly have a similarly bullish view of the opportunities for local competition. In the three years since the passage of the Telecommunications Act in

¹⁰ Comments of UTC in this proceeding, May 26, 1999.

¹¹ CLECs reported 1997 revenues of \$2.7 billion, up from the \$0.96 billion reported to the FCC for 1996. Revenues for 1998 were estimated to be about \$5.2 billion (See statement of Heather Gold, FCC *En Banc* on the State of Local Competition, January 29, 1998, FCC's *Trends in Telephone Service*, February 1998, and Merrill Lynch, *Telecom Services – Local*, March 11, 1999.) The corresponding share of the CLECs in total revenues increased from 1 percent to 2.6 percent to 5 percent.

¹² Salomon Smith Barney, “CLECs Surpass Bells in Net Business Line Additions for the First Time,” May 6, 1998. The article reports that CLECs added 498,000 new lines, compared with 461,000 for the Bells:

To put this in perspective, the non-AT&T long distance competitors did not have more incremental minutes than AT&T until 1986, a full 10 years after MCI carried its first switched long distance minute. What this shows is that the combination of access to low cost capital coupled with a clear regulatory and public policy initiative toward opening up local markets has allowed the CLECs as a group to achieve in less than 2 years after the Telecom Act, what it took MCI and other alternative long distance carriers over 10 years to achieve during the 1970s and 1980s. If one takes the obvious logical extension of this, this means that the 50% loss of market share that AT&T saw from 1986 through 1996 could be replicated in the local market in a much quicker time period.

¹³ Affidavit of R. Glenn Hubbard and William H. Lehr, on behalf of Western Electric Company, Inc., and American Telephone and Telegraph Company, United States District Court for the District of Columbia, Civ. No. 82-0192 (HHG), filed December 5, 1994, Attachment 1: “An Analysis of Competition in U.S. Long-Distance Telephone Service,” pp. 5-6.

1996, CLECs have raised \$30 billion of outside capital.¹⁴ In comparison, the most recent data reported to the FCC show total annual investment by the ILECs has been about \$19 billion.¹⁵ The over \$30 billion that CLECs raised—over a three-year period—was over 12 times the amount of capital they raised in the four years before passage of the Act.¹⁶

8. The AT&T and MCI economists systematically ignore the experience with Canada's very different local competition rules. Based on a strongly articulated preference for facilities-based entry,¹⁷ these rules differ from the FCC's in several ways: (1) UNEs are as a general policy to be made available on a mandatory basis only if they are essential facilities; (2) the few non-essential exceptions are to be made available on a mandatory basis for only a 5-year period; (3) the prices of network elements are based on the ILEC's (not a hypothetically efficient firm's) forward-looking costs plus a 25 percent mark-up; and (4) there is no regulatorily-prescribed resale discount.

9. Yet local competition in Canada is progressing.

- AT&T-Canada merged in March of this year with the largest facilities-based competitive local exchange carrier, MetroNet,¹⁸ which has fiber facilities in 11 large Canadian metropolitan areas. One industry observer now ranks the merged company

¹⁴ Council of Economic Advisors, "Progress Report: Growth and Competition in U.S. Telecommunications 1993-1998," February 8, 1999.

¹⁵ Calculated from data reported in the FCC's *Statistics of Communications Common Carriers*.

¹⁶ Heather Gold, *op. cit.* and Council of Economic Advisors, *op. cit.*

¹⁷ "Local Competition Decision," Telecom Decision CRTC 97-8, Ottawa, May 1, 1997, paras 73-74.

¹⁸ See "AT&T Canada – MetroNet Mega-Merger," *Network Letter*, March 8, 1999, pages 1-2.

with other Canadian super carriers—Bell Canada, BCT.TELUS and Sprint-Canada.¹⁹ All of these companies are developing the capability of offering a full range of products on a national scale.²⁰

- MetroNet²¹ alone has acquired 60,000 lines—about one percent of the business lines in Canada—by pursuing a strategy of reselling ILEC Centrex lines²² to acquire customers and then migrating these customers to its own facilities. Between September 1998 and the beginning of 1999, the share of MetroNet's lines served by its own facilities increased from one-third to two-thirds.
- Overall, CLECs (including both facilities-based carriers and resellers) appear to be doing quite well. One industry consultant estimates that they serve about 10 percent of the business market in markets where they operate.²³ As in the US, the potential for residential facilities-based competition appears to be emerging through the medium of telephone over cable television facilities.²⁴ Two of the four largest providers—

¹⁹ The Canadian trade press also reports discussions between Group Telecom, Inc., one of the other two licensed facilities-based carriers, and Sprint Canada. In particular, Group Telecom is interested in offering Sprint loop and transport facilities in the cities in which it is establishing facilities (Vancouver, Calgary, and Toronto) in competition with unbundled elements supplied by ILECs. See "Group Telecom Says AT&T Canada – MetroNet Merger Opens Niche for Local Competition," *Network Letter*, March 22, 1999, pages 4-5.

²⁰ See "The New Balance of Power: National Super-Carriers," *Telemanagement*, March 1999, page 1.

²¹ See John Riddell, "Local Competition Gets Real: MetroNet Offers Service in 11 Cities," *Telemanagement*, January 1999, pages 11-13.

²² Unlike the US, CLECs in Canada purchase retail services targeted for large users from the incumbents, as opposed to services from a wholesale tariff with a regulatory-prescribed avoided cost discount.

²³ See "Montreal Telecom Consultant Predicts CLEC Evolution into Full Service Providers," *Network Letter*, January 18, 1999, pages 3-4.

²⁴ See Lis Angus, "Cablecos Planning Local Service Rollout in 1999," *Telemanagement*, January 1999, pages 14-15.

Videotron²⁵ and Cogesco—have announced plans to upgrade their facilities to provide telephone services to their residential customers.

10. These real world results effectively rebut the grudging acknowledgement of competition shown by the IXCs' economists. By assuming that CLECs will deploy the same narrow-band technology and locate their offices in the same locations as the ILECs, Dr. Byrant "proves" that real companies, such as AT&T's Teleport and MCI-WorldCom's MFS, either cannot exist or do not deserve to. For example, his chart 10 purports to demonstrate that an individual CLEC entering a high density urban area would have loop costs over three times those of the ILECs, even when it attained the rather healthy market share of 10 percent. The history we have surveyed provides a living refutation of his argument.

11. To be sure, all this activity has been concentrated primarily in the densely populated urban areas and sales to medium and large business customers—although even this generalization must be qualified in the light of the documentation of competition in less densely populated areas by the PNR study, attached to GTE's opening comments. The fact remains that their recommendation of "national rules" (Hubbard 20-21)—by which they mean every element must be made available everywhere to serve every customer for all time—necessarily and inherently ignores that experience, which demonstrates conclusively that national rules are simply irrational in the light of the Supreme Court's decision.²⁶ These witnesses representing

²⁵ Videotron also has installed fiber facilities to provide local service to business customers in Montreal.

²⁶ Manifestly, "national rules" are not in themselves unacceptable. GTE and Bell Atlantic, for example, do not object to the FCC's adopting "national rules"—subject, however, to the condition that they be flexible enough to recognize the differing availability of alternatives to ILEC network elements in different parts of the country and in different customer markets.

the IXCs in effect recommend a return to the standard that the Supreme Court explicitly rejected—namely, that if a failure of UNEs to be available would in *any* way impede or handicap competitors (or even, perhaps, a single competitor)—the existence of which handicap would presumably be conclusively inferred from the mere request of a CLEC for a UNE (Hubbard, pp. 7, 8, 21)—the ILEC must be required to offer it, at regulatorily prescribed rates.

12. Moreover, the sponsor of these last two witnesses has now invested upwards of \$100 billion, through its mergers/acquisitions of TCI and MediaOne, precisely in order to enter those “local mass markets,” accompanied by a massive advertising campaign proclaiming its intention to do exactly that.²⁷

IV. THE ISSUE OF LINE SHARING AND SPECTRUM UNBUNDLING

13. Rhythms and North Point are demanding that the mandatory unbundling process be extended to a degree that could scarcely have been contemplated by the initial requirement that ILECs make “unbundled loops” available to their competitors : namely, that they be required to offer applicants use of only the high-frequency portion of the spectrum provided by the loops. Whatever the superficial plausibility of these demands, they would, demonstrably, be destructive of the efficient competition that the Act and FCC have attempted to encourage.

14. The logic of the demand is, superficially, compelling—even though, I will proceed to demonstrate, it would produce an irrational and anti-competitive apportionment of costs: a CLEC interested in competing only for the business of transmitting massive volumes of data at

²⁷ The question might reasonably be raised whether this huge initiative does not contradict my previous warning that the FCC’s unbundling and pricing rules encourage free riding and discourage facilities-based competition. The answer, I suggest, is that AT&T here is concentrating on developing the next generation of broadband

high speed does not require the entire loop. It is access only to the high frequency portion of the spectrum that is “necessary” for the provision of that service and lack of access to which would “impair” the ability to offer it.

15. The proposal has the additional, intriguing—and, doubtless, not coincidental—implication that while the logic of identifying high frequencies alone as a separate input is questionable, the TELRIC of access to them might in a sense be regarded as close to zero. This could be the result produced by the now-familiar method of measuring the TSLRICs of products supplied in common: where facilities are shared by two or more services, the incremental cost of service B is the difference between the cost of providing A on a stand-alone basis and the cost of providing service A and B together. If, then, a loop is conceived of as making it possible to supply two services—basic dial tone and high speed-high capacity transmission of data—the TSLRIC of *either of them* would turn out to be close to zero if not actually zero, since any system set up to supply the other would already have incorporated the costs of the loop itself. *The same logic that would produce a close to zero total service incremental cost of providing access to the high frequency spectrum, when capacity to do so is added to a loop already providing dial tone, would produce a close to zero incremental cost for the latter as well, if that capacity were added to a system already in place capable of providing access to the high frequency spectrum.*²⁸

facilities not available from ILECs, in further demonstration that the most powerful competition is facilities-based, and particularly when those facilities embody alternative or new technologies.

²⁸ See the exposition of the identical—fallacious—logic as applied to the familiar and long-standing controversies over whether subscriber dial tone is a “separate service,” with its cost to be recovered in a separate charge, or an essential input to the provision, for example, of long-distance and local usage, with its costs properly recovered in the charges for those services. See the exposure of that fallacy in my *Letting Go: Deregulating the Process of Deregulation*, Michigan State University Institute of Public Utilities and Network Industries, 1998, pp. 73-76,