

the call must be delivered to CLEC A's switch, the interconnection location of CLEC A's switch, and how CLEC B should route the call to reach CLEC A's switch.

The North American Numbering Plan administrator assigns telephone numbers to local exchange carriers in blocks of 10,000 for use with lines within geographically-defined rate exchange areas. A rate exchange area is generally a local calling area, but sometimes local calls can be made between several rate exchange areas.

As of March 1999, 4,601 NXX codes were assigned to competing carriers for use in Bell Atlantic's rate exchange areas. Even though a carrier does not have to start using an NXX code as soon as it is assigned, a carrier must return the code if it is not activated to provide service within 6 months. Central Office Code (NXX) Assignment Guidelines at 17, §6.3.3 (Apr. 26, 1999). Hence, in the rate exchange areas where NXX codes have been assigned to competing carriers, those carriers are either now providing local service or will be doing so in the very near future.

In the Bell Atlantic region, nearly 60 percent of rate exchange areas have at least one competing carrier with its own switch and NXX code. UNE Fact Report at I-7. And at least 38 percent of Bell Atlantic's rate exchange areas have at least two carriers with their own switch and NXX codes. *Id.*

In major metropolitan areas, the competitive picture is even more dramatic. For example, there are at least 40 competing carrier switches in the New York metropolitan area. See Exhibit 1. Every Manhattan rate exchange area has at least four carriers with their own switch and NXX codes. All of these carriers are either now providing local service through their own switch or will begin providing service very shortly.

The situation is nearly the same in the DC area. There are currently at least 23 competing carrier switches in the Washington, DC metropolitan area. UNE Fact Report at I-22. Twelve of these carriers already have NXX codes for the DC rate exchange area and are either now providing local service or will start to do so soon.

The deployment and use of local switches by numerous local carriers in major metropolitan areas is compelling evidence that competitors do not need unbundled switching from Bell Atlantic. Under no circumstances should the Commission adopt a national rule that requires incumbent carriers to unbundle local switching everywhere, including those areas where competing carriers already have their own switches. Such a rule would seriously damage local competition and incentives for investment.

The investments facilities-based carriers have made in switches would be severely undermined if they were forced to compete against carriers that could lease switching capacity from incumbent carriers at TELRIC prices without putting their own capital at risk. This problem would be even more severe if competitors could obtain unbundled local switching from incumbent carriers as part of a combination of network elements or the UNE Platform. The UNE-Platform would give carriers the ability to purchase retail local services for resale at a much steeper discount than prescribed by Congress in the Telecom Act. These steeper discounts would severely diminish the ability of facilities-based carriers to recover and earn on their investment in local switches.

There would also be little incentive for new entrants to deploy switches in areas where they do not serve if they can simply lease switching capacity from incumbent carriers at TELRIC prices without putting their own capital at risk. As Dr. Crandall explains, "allowing firms to lease unbundled elements at regulated prices based on

forward-looking costs creates a substantial disincentive for entrants to place their capital at risk by building their own facilities.” Crandall Declaration at 7. The result would be to encourage competition by firms that do not invest in their own facilities, which is not the most intense and long-lasting form of competition.

Incumbent carriers would likewise have little incentive to invest more capital in local switches. So long as the incumbent can obtain no more than TELRIC rates for switching investment, the incumbent will look elsewhere to invest his capital. And by stifling investment, the unbundling requirement will stunt innovation. “It makes no economic sense for the ILEC to invest in technologies that lower its own marginal costs so long as competitors can achieve the identical cost savings by regulatory fiat.” Jorde, Teece and Sidak Declaration at ¶27. Accordingly, the Commission should not require incumbent carriers to unbundle local switching in any area that is now served by competing carriers with their own switch or in any area that a competitor could serve with its own switch.

B. Interoffice Transport Facilities.

Competing carriers have offered transport services on a competitive basis for at least 14 years. 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. Instead, they invested in their own fiber optic facilities and collocated their own equipment in the incumbents’ central offices. Competing carriers did not then and do not now need access to the incumbent carriers’ interoffice transport facilities on an unbundled basis. In fact, requiring the

unbundling of these facilities would undermine and slow down the competitive development of this market.

Competing carriers began offering competitive transport services in the mid-1980s. The New York Public Service Commission authorized interoffice competition in 1985 and Teleport began building transport facilities in lower Manhattan, one of the most densely populated business centers in the world. By 1990, competing carriers had deployed 20 networks in 15 cities. U.S. Department of Commerce, *U.S. Industrial Outlook* at 33-37 (1990). The following year, the Commission found that “[r]ecent changes” – “most importantly, fiber optic technology” – “have facilitated the development of competition in the provision of [local access] facilities.” *Expanded Interconnection with Local Telephone Company Facilities*, Notice of Proposed Rulemaking and Notice of Inquiry, 6 FCC Rcd 3259 (1991).

In 1994, in its *Expanded Interconnection* proceedings, the Commission again recognized both the feasibility and the reality of competition in the local market for interoffice transport: “interconnectors now are able to provide special access and switched transport transmission services in competition with the LECs.” *Expanded Interconnection with Local Telephone Company Facilities*, Third Report and Order, 9 FCC Rcd 2718, at ¶ 4 (1994). In fact, the Commission predicted that competition in the interoffice transport market “could develop more rapidly than” it previously had in the long distance markets. *Expanded Interconnection with Local Telephone Company Facilities*, Report and Order and Notice of Proposed Rulemaking, 7 FCC Rcd 7369, 7380 n.37 (1992). By 1995, 29 competing carriers had deployed fiber optic networks in 104 cities. And in 1996, the Commission again expressly found that “there are alternative

suppliers of interoffice facilities in certain areas.” *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, ¶ 441 (1996).

Since this competitive activity occurred prior to the Telecommunications Act, it all developed without any access to 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 control offices.” *Expanded Interconnection with Local Telephone Company Facilities*, 7 FCC Rcd 7740, ¶65 (1992) (emphasis supplied).

The passage of the Telecommunications Act did not change the competitive development of local transport markets. The efforts of competitors to expand the reach of their competitive networks is visible in major metropolitan areas as they excavate streets to lay their fiber optic cables. In the Bell Atlantic region, competitors have over 725,000 miles of fiber. Bell Atlantic Petition for Forbearance at Attachment A. For example, in New York City MSA area, AT&T has 580 route miles of fiber, e.spire has 182 miles, MCI WorldCom has 172 miles, Time Warner has 157 miles and Local Fiber has 40 miles. UNE Fact Report at Appendix B. Another 7 competing carriers also have their own fiber networks in New York City, but they have not revealed the number of miles covered by their networks. *Id.*

Similarly, in Philadelphia, AT&T has 565 route miles of fiber, NEXTLINK has 500 miles, and e.spire has 12 miles. *Id.* Another 7 carriers have fiber networks of unknown length. *Id.* In Washington, DC, 3 competing carriers have a total of 839 route miles, while another 8 competing carriers have fiber networks of unknown length. *Id.*

Although many carriers have built their own fiber networks in all of the major metropolitan areas in the Bell Atlantic region, only a few have said how many miles of fiber they have and fewer still have revealed the location of their fiber. We have nonetheless plotted the location of competing carrier fiber in the Bell Atlantic region to the extent such information is publicly available. See Exhibit 3. Even though these maps are very incomplete, they show widespread deployment of fiber networks by competitors in every major Bell Atlantic city.

Competitors have connected their networks to about 550 Bell Atlantic central offices through over 1,667 collocation arrangements. As Dr. Jackson explains, “[w]hen CLEC fiber or microwave connects to an ILEC central office, then interoffice transmission services to all other ILEC central office locations also connected to CLEC fiber or microwave have competitive alternatives.” Jackson Declaration at ¶18. These competing networks are also connected to interexchange carrier points-of-presence and hundreds of office buildings in each major metropolitan area. In fact, the Commission noted in the Bell Atlantic-NYNEX merger proceeding that “there are already a number of competitors offering [transport] services, and individual interexchange carriers (including MCI) often choose particular providers to carry large amounts of traffic on a dedicated basis.” *Applications of NYNEX Corporation Transferor, and Bell Atlantic Corporation*

Transferee, For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries, Memorandum Opinion and Order, 12 FCC Rcd 19,985, at ¶ 111 (1997).

The reach of these competitive networks is staggering. These competing networks can now service approximately 90 percent of the Bell Atlantic's special access transport customers. Bell Atlantic Petition for Forbearance at 1. In fact, by the beginning of 1998, competitors were using their own networks to provide approximately 30 percent of the high capacity special access services in these jurisdictions and up to 50 percent in key business centers.

Moreover, there is a wholesale market developing for transport services. For example, Metromedia Fiber Networks "is a competitive optical provider ('COP') of interoffice facilities/services to telecommunications carriers." Letter from Robert Riordan, Director of MFN, to Lawrence G. Malone, General Counsel of the New York State Public Service Commission, dated April 2, 1999. It recently "announced it will provide Time Warner Telecom with high-speed, high capacity dark fiber infrastructure in New York City and the New Jersey metropolitan area for a period of 20 years." Salomon Smith Barney Report, *MFN - 1Q99 Better Than Expected* (May 12, 1999). Metromedia also announced that it "would provide [Allegiance] with dark fiber in the New York metropolitan area." *Id.*

Another wholesale provider of transport services is Qwest Communications International, Inc. Last month, it announced a seven-year, \$63 million contract "to provide wholesale communications services to Advanced TelCom Group (ATG), a facilities-based competitive local exchange carrier." Qwest Press Release, April 26, 1999. Under this agreement, "Qwest will provide a suite of high-speed broadband and

data services to ATG, including dedicated Internet access, frame relay, private line, dark fiber and long distance.” *Id.* ATG plans to sell these services to customers in medium-sized markets across the country. *Id.*

Given the extensive development of competitive transport services over a period of more than 14 years, incumbent carriers should not be required to unbundle interoffice transport facilities. Competitors have already demonstrated their ability provide these services by investing in their own facilities. They don’t need to use the incumbents’ network elements.

At a minimum, the Commission should not require unbundling of interoffice transport facilities in any area where at least one carrier has deployed its own network and collocated its own transmission equipment in Bell Atlantic’s wire center. In these areas, competitors do not need access to Bell Atlantic’s interoffice transport facilities on an unbundled basis.

If the Commission were to disregard the investments that competitors have already made in competing transport facilities and require incumbents to unbundle interoffice transport facilities on a nationwide basis, the Commission would seriously damage competition and investment incentives.

First, the investments these carriers made in deploying their own fiber transport facilities would be significantly devalued by any FCC requirement that incumbents unbundle their transport elements in these areas. Their ability to offer transport services at market prices and realize the benefit of their investment would be significantly curtailed by the ubiquitous availability of incumbent carriers’ interoffice transport facilities at TELRIC prices.

Second, new entrants will have little incentive to deploy more fiber transport facilities if they can simply lease those same facilities from incumbent carriers at TELRIC prices. There would no longer be any benefit for them to placing more of their capital at risk.

C. Directory Assistance and Operator Services.

Both operator services (OS) and directory assistance (DA) are services that CLECs can either self-provision or readily obtain from a multitude of competing wholesale providers. Wholesale providers of OS/DA services include interexchange carriers (IXCs), other CLECs, and numerous commercial wholesale providers of “turnkey” OS/DA services.

CLECs do not need to rely on or use an incumbent LEC as its source for OS/DA services. While Bell Atlantic has executed over 400 interconnection agreements with facilities-based CLECs, in only 70 instances (*i.e.*, less than 1 contract in 5) have terms for Bell Atlantic-provided OS/DA service been effectuated. Thus, in more than 80% of the interconnection arrangements, CLECs interconnecting with Bell Atlantic have chosen to provide OS/DA for themselves or to obtain such service from other wholesale providers. Accordingly, a CLEC’s access to the ILEC’s OS/DA service is plainly not essential.

The growth and number of wholesale providers of OS/DA services reflects the robust competition in the retail operator services market which now includes more than 2000 operator service providers (OSPs). As reported in a recent industry analysis prepared by Frost and Sullivan, “[t]he U.S. operator services market is at the market maturation stage and the decline in market growth has led to overcapacity in the market.

Overcapacity has resulted in an increase in the degree of competitiveness within the market, which is expected to intensify over the next two to three years.”³

The major IXCs, which provide both interLATA and intraLATA operator services, have been and continue to be the principal providers of both retail and wholesale OS/DA services. In the retail market, IXCs accounted for over 68% of the operator services market in 1998,⁴ and represented 72% of the wholesale operator services market by 1997.⁵

The three largest interexchange carriers (AT&T, MCI/Worldcom and Sprint) not only provide operator services and directory assistance bureaus for their own respective CLEC operations, but also make OS/DA services commercially available at wholesale to other carriers nationwide. IXCs can do so with relative ease and efficiency because OS/DA services, whether provided to local or long distance customers, entail essentially identical functionalities and resources. MCI/Worldcom, for example, touts its *Carrier Operator Services* as “supported by geographically dispersed operator centers and backed by a fully digital nationwide network”, that “offer the right solution for both switched and switchless carriers. From turnkey services to call treatment and return” (See MCI/Worldcom promotional literature included in Exhibit 4.

³ *Report on U.S. Operator Services Market*, published by Frost and Sullivan, 1998 at pp.1-8 (“Frost and Sullivan Report”). The Frost and Sullivan Report defines the operator services market as including all collect, person-to-person, third party billed, and directory assistance calls in the country.

⁴ Frost and Sullivan Report at Figure 3-4.

⁵ *Report on RBOC Wholesale Strategies*, prepared by Frost and Sullivan, 1998, at Figure 8-10.

In addition to IXC-provided wholesale OS/DA services, CLECs can also obtain directory assistance and operator services from a variety of commercial providers of OS/DA services. Alternative providers of OS/DA service include CFW-Intelos, McLeodUSA, InfoNXX, GST Telecom, Metro One, Excell Agent Services, Teltrust, Frontier Communications, Qwest411, Experian's TEC Group, CenturyTel Telecommunications, Inc., Consolidated Communications and HebCom. UNE Fact Report at IV-2. InfoNXX, for example, provides OS/DA services for a variety of telecommunications service providers, including the wireless subscribers of Bell Atlantic, Cellular One, TCG and Airtouch. UNE Fact Report at IV-4. These alternative providers offer CLECs not only branded or unbranded OS/DA services, but also enhanced OS/DA service features, such as reverse search and associated information services. A sampling of marketing materials from these providers is included in Exhibit 4.⁶

These alternative providers and self-provisioning carriers have been so successful in capturing market share that, for directory assistance service, Bell Atlantic has seen its volumes of wholesale interstate directory assistance calls fall by over two-thirds, from

⁶ Competition to incumbent carriers' OS/DA service also exists on the Internet. There are several web sites offering a national directory inquiry service at no charge. Switchboard.com is perhaps the most widely used service. Other Internet providers of directory service include InfoSpace, InfoNow, Zip2.com and AT&T's anywho.com, which features over 90 million residence and 10 million business listings. UNE Fact Report at IV-3.

Many of these Internet-based services provide more than simple directory listings and can also provide assistance in completing calls. Anywho.com, for example, offers a "Click2Dial" icon that utilizes AT&T's software to arrange and place a conference call to the requested listing. UNE Fact Report at IV-3, 4. Qwest and Switchboard.com have announced similar, click-to-conference calling options as well as other Internet-based communications services. UNE Fact Report at IV-4.

228 million calls in 1994 to 71 million calls in 1998. The volume of Bell Atlantic's intraLATA operator service calls has also declined precipitously due to competition from alternative services offered by IXCs⁷ and competing OSPs. Bell Atlantic's volume of calling card calls, for example, dropped by over 40% in the years 1995-97.

The presence of alternative OS/DA providers not only confirms that competition and choice now prevail in the wholesale OS/DA market, but the sheer number of alternative providers underscores also the ease of market entry into both wholesale and retail OS/DA services. To provide directory assistance services, a CLEC essentially requires only operators and access to the relevant database listings. The hiring, training and supervision of employees to search for requested listings and provide related customer assistance are universal business functions that are not unique to ILECs. Moreover, necessary DA listings and databases are widely available from competing sources, such as InfoUSA, Metromail, First Data, VoltDelta and Dun & Bradstreet, either in periodically updated CD format or continuously updated online service. CLECs which choose to self-provision DA service can establish and staff operator bureaus with their own employees utilizing database access from LECs or any number of alternative providers.

Similarly, the resources needed by a CLEC to establish its own operator assisted call completion services are obtainable in the open market. CLECs can readily obtain the

⁷ AT&T markets an operator service called 1-800-CALL ATT. MCI offers a call completion service as 1-800-COLLECT, and Sprint markets its service as 1-800-ONE-DIME. Each of these offerings enable originating customers to place calling card, collect, bill-to-third-number and person-to person calls, whether the calls are local, intraLATA, or interLATA toll.

necessary billing information needed to verify the billing arrangements requested by a caller. Verifying billing information typically requires querying the line information database (LIDB) of the caller's local telephone company, which may or may not be the same as the company providing the operator services. LIDB services are universally available and are accessible even to smaller carriers through competing hub providers, such as Illuminet and SNET. Accordingly, both directory assistance service and operator services (as well as the necessary databases) are readily available to carriers at competitive, market-determined prices.

Because OS/DA services and access to the underlying databases are already competitive and available on a wholesale basis, the Commission should not require incumbent LECs to unbundle their directory assistance and operator services. Given the numerous alternative sources available for directory assistance and operator services, as well as the general availability of access to databases necessary to self-provision OS/DA service, CLECs have not been, and will not be, impaired in the provision of telecommunications services if they do not have access to unbundled directory assistance service and operator call completion services as network elements.

D. Loops.

There is no question that alternatives to copper loops are developing very rapidly. Wireless services are becoming more attractive alternatives to copper line services as their prices continue to fall. And AT&T is betting more than \$90 billion that it can provide local telephone service through cable television systems.

For some customers, however, alternatives to copper loops are already available. Competing carriers can now reach many large and medium-sized businesses over their own high-capacity fiber loops. In fact, competing carrier fiber now serves nearly 15 percent of all commercial office buildings in the country. UNE Fact Report at III-3.

The deployment of competing carrier fiber to business customers is very extensive in the Bell Atlantic region. See Maps 1-5, III-5--III-10. In New York City, competing carriers have fiber that passes through 75 percent of the zip codes that make up the top 10 percent of all zip codes within the state in terms of daytime population. UNE Fact Report at III-3. And this broad scale deployment extends well beyond the largest metropolitan areas. For example, one hundred percent of such zip codes in Syracuse and Binghamton have fiber deployed by competing carriers. UNE Fact Report at III-3.

In New Brunswick, New Jersey, competing carriers have fiber in 78 percent of the zip codes that make up the top ten percent of all zip codes within the state in terms of daytime population. UNE Fact Report at III-3. Sixty-seven percent of such zip codes in Trenton have fiber deployed by competing carriers. UNE Fact Report at III-4.

In Northern Virginia, competing carriers have fiber in 93 percent of the zip codes that make up the top ten percent of all zip codes within the state in terms of daytime population. UNE Fact Report at III-4. And in Philadelphia, competing carriers have fiber in 95 percent of the zip codes that make up the top ten percent of all zip codes within the state in terms of daytime population. UNE Fact Report at III-4.

Fiber is not the only technology that competing carriers are deploying as an alternative to copper loops. Competing carriers can and do also reach large and medium sized businesses through microwave and fixed terrestrial wireless connections. UNE Fact

Report at III-10. As Chairman Kennard already observed, “new wireless companies are building networks that can help break down the local loop or ‘last mile’ bottleneck controlled by the incumbent wireline firms, allowing wireless to become a significant substitute for wireline telephony.” *William Kennard, Guest Opinion: Access: Key Word for New Millennium*, Wireless Week, Feb. 15, 1999.

Many of the largest competing carriers have already obtained wireless facilities, including licenses. Bernie Ebbers just announced that MCI WorldCom “has already purchased enough wireless cable to cover half the country [and] his goal is to eventually cover 70%.” CIBC World Markets Corp., Daily Teletimes, May 21, 1999. MCI WorldCom “will buildout (the cable coverage) and use it as another way to serve as a local-loop to small and mid-sized business.” *Id.* AT&T holds 38 GHz licenses in over 200 geographic areas, including more than 95 of the largest 100 metropolitan markets. UNE Fact Report at III-11. And Sprint has made four recent fixed wireless acquisitions that it plans to use to provide access to its ION network. Other major providers of fixed wireless services include Winstar, Nextlink, and Advanced Radio Telecom.

Competing carriers are using their own fiber and wireless facilities to serve large and medium sized business customers with their own switches. In the Bell Atlantic region, competing carriers are serving at least 900,000 facilities based lines. UNE Fact Report at III-16. In Bell Atlantic’s larger wire centers with at least one collocating carrier, competitors already serve between 8 and 18 percent of the business lines. UNE Fact Report at III-7.

Given the extensive deployment of competitive fiber and wireless loop technology, incumbent carriers should not be required to unbundle loops that support

DS1, DS3 or higher capacities for business customers. Competitors have already demonstrated their ability to serve these customers by investing in their own facilities. They don't need to use the incumbents' network elements.

At a minimum, the Commission should not require unbundling of these loops in any area where at least one carrier has deployed its own network and collocated its own transmission equipment in Bell Atlantic's wire center. In these areas, competitors do not need access to Bell Atlantic's high-capacity fiber loops on an unbundled basis.

If the Commission were to disregard the investments that competitors have already made in fiber and wireless loop technology and require incumbents to unbundle loops that support DS1, DS3 and higher capacity on a nationwide basis, the Commission would seriously damage competition and investment incentives.

First, the investments these carriers made in deploying their own fiber transport facilities would be significantly devalued by any FCC requirement that incumbents unbundle their DS1, DS3 or higher capacity loop elements in these areas. Their ability to offer transport services at market prices and realize the benefit of their investment would be significantly curtailed by the ubiquitous availability of incumbent carriers' high capacity loop facilities at TELRIC prices.

Second, new entrants will have little incentive to deploy more fiber or wireless loop technology if they can simply lease high-capacity fiber loops from incumbent carriers at TELRIC prices. There would no longer be any benefit for them to placing more of their capital at risk.

V. The Commission Should Not Impose Unbundling Requirements for Advanced Services Technology.

To the extent that economic principles provide a foundation for unbundling certain of the incumbent carriers' network elements, that foundation "justifies mandatory sharing only of facilities carried over from the public utility past." Kahn Declaration at 6. It does not justify sharing of network elements that incumbent carriers deployed in a competitive market.

The advance services equipment incumbents and competitors are now deploying are not carryovers from a public utility era. They are risky investments made by incumbents in a competitive market with absolutely no assurance that those investments will be successful or profitable. Not only is there no economic rationale for unbundling these facilities, applying an unbundling requirement to them would stifle investments in those facilities in the first place. In fact, it is closed cable systems that are on the verge of locking up the market for high-speed Internet access services. It is therefore especially critical that the Commission not impose investment deterring obligations on incumbent telecommunications carriers.

First, the Commission has already determined that the market for advanced services is a competitive one. In its Report to Congress, the Commission found that "[t]he preconditions for monopoly appear absent" in the "last mile" of the advanced services market. *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Report, CC Docket No. 98-146 ¶48 (rel. Feb. 2, 1999) ("Advanced Services

Report”). The Commission further found that “no competitor has a large embedded base of paying residential consumers” and that there is no “indicat[ion] that the consumer market is inherently a natural monopoly.” *Id.*

Second, incumbents do not have a headstart over competing carriers with respect to advanced services technology. New entrants and incumbents are starting from the same point. They both have the same ability to deploy new technology for advanced services. In fact, it is arguably the new entrants that have the headstart over incumbents.

New entrants have already deployed their own advanced services (xDSL) equipment in incumbents’ central offices and hooked that equipment up to loops in order to provide high speed Internet access. Competing carriers already provide high speed Internet access in each of the 10 largest MSAs, and 25 of the top 50. UNE Fact Report at VI-19. By contrast, incumbent carriers are offering xDSL service in only 7 of the largest MSAs and only 22 of the top 50. *Id.*

The Commission itself acknowledges that competing carriers have already deployed more advanced services equipment than incumbents over incumbent carriers’ loops. And the trade association ALTS told the Commission that competing carriers – not incumbents – “were the *first*” to deploy high-speed data networks and “continue to deploy such advanced technologies at a dramatic pace.” ALTS Petition for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996 at ii, CC Docket No. 98-78 (filed May 27, 1998).

Third, incumbents and competing carriers are subject to advanced services competition from alternative media. For example, the Commission already recognizes

that “[t]he most popular offering of broadband to residential customers is via ‘cable modems’ offered by cable television companies within their cable service territories.” *Advanced Services Report* ¶ 54. One-third to one-half of all cable networks already support two-way service, or will very soon. High-speed Internet access is available from cable operators to more than 20 million homes, or roughly 20 percent of the national market. Cable Datacom News, *Cable Modem Market Stats and Projections*, <http://cabledatacomnews.com/cmhc/cmhc16.html>. By the end of this year, they will be available to 30 million homes. J.J. Bellace, et al., Merrill Lynch Capital Markets, Investext Rpt. No. 2706388, *Wireline Communications Equipment – Industry Report at *1* (June 22, 1998). In fact, 720,000 customers currently use high-speed cable services, which is 80 percent of the total number of users of high-speed Internet services. UNE Fact Report at VI-8.

Wireless technologies are also being used to deliver high-speed Internet access. As of February 1999, the Commission ranked wireless cable companies ahead of incumbent LECs in the current deployment of broadband facilities that serve the last mile. *Advanced Services Report* ¶¶ 53, 57, 58. Next generation mobile wireless technology can handle broadband services using only 10 Mhz of spectrum. And AT&T and MCI WorldCom are buying up wireless cable companies to provide high speed Internet access to the residential mass market.

The market for advanced services is already developing on a fully competitive basis. Competing carriers are already deploying their own advanced services equipment at a very rapid rate. They certainly don’t need access to incumbent carriers’ advanced services equipment on an unbundled basis.

If the Commission were to require unbundling of advanced services equipment, the new entrants' investment in new technology would be undermined. Their competitors could simply lease new technology from incumbents at TELRIC prices, rather than risking their own capital on such investments.

Through early investment, a CLEC could serve markets before other CLECs or ILECs in complementary markets could deploy networks. With mandatory unbundling, however, the payoff to swift action is diminished, as such outlays can only confer transitory rewards. A compulsory-sharing regime tips the balance of the CLEC's calculus in favor of waiting. The value of the first-mover advantage erodes, and the value to the CLEC of keeping its options open increases.

Jorde, Sidak, and Teece Declaration at ¶52.

Moreover, if incumbents were required to unbundle their advanced services equipment as they deploy it, there would be little incentive for competitors to invest in their own advanced services equipment. This disincentive will severely damage innovation in telecommunications services.

The discouraging effect of the Commission's prescription for pricing UNEs is not confined to risk-taking innovations by the ILECs; it is equally destructive of the other part of the process of competitive innovation – the efforts of rivals of the successful innovator, by their own efforts, to invent around and surpass the initiator and achieve the market's reward for those efforts. In contrast, the Commission's sharing and pricing rules encourage free riding: if rivals can share use of whatever ILEC facilities they ask for – with their mere asking constituting sufficient demonstration that access is “necessary” to them – at prices explicitly intended to recover only the minimum cost of supply, employing the most modern technology, it cannot but have a fatally discouraging effect on their own imitative and innovative efforts: when every applicant can be a free rider, at such minimum prices, who is going to build the vehicle?

Kahn Declaration at 17.

Finally, incumbent carriers will have little incentive to invest in advanced services equipment if it is burdened with an unbundling obligation. As Justice Breyer explained,

Nor can one guarantee that firms will undertake the investment necessary to produce complex technological innovations knowing that any competitive advantage deriving from those innovations will be dissipated by the sharing requirement. The more complex the facilities, the more central their relation to the firm's managerial responsibilities, the more extensive the sharing demanded, the more likely these costs will become serious. And the more serious they become, the more likely they will offset any economic or competitive gain that a sharing requirement might otherwise provide.

Iowa Utils. Bd. 119 S. Ct. at 753-54.

These investments are inherently risky and made in fully competitive market.

Professor Kahn explained that forcing incumbent carriers to make those investments available to competitors at TELRIC rates destroys any incentive to make the investments in the first place.

In these circumstances, the Commission's prescription of a price purportedly equal to the minimum costs that would be incurred by an efficient supplier, using the most modern technology and writing, as it were, on a clean slate, completes the process of *destroying the incentive to innovate*. The notion that the ILECs are likely to find it profitable to engage in such unprecedentedly risky investments as they now contemplate – the most notable example being the digitalization of subscriber lines – under a regulatory regime that requires them immediately to share those facilities with any and all competitors who ask for them – competitors who are subject to no such obligation – at prices based on the Commission's hypothetical most-efficient-firm cost standard seems flatly in conflict with the long-run prerequisites of innovation.

Kahn Declaration at 16. Even AT&T's own experts have acknowledged that unbundling requirements for advanced services will discourage incumbents from investing in those facilities.

It would be against the public interest to subject the parties' last mile broadband data transport facilities to any form of regulation at this time There are many competitors, including the ILECs, that are actively developing broadband transport services. . . . The xDSL services that are currently being deployed by the incumbent LECs alone constitute a significant and attractive commercial alternative to the internet cable services that TCI and other offer The demand to unbundle broadband transport will engender intrusive regulation of an emerging new service that requires massive entrepreneurial investments and

whose marketplace success is far from assured. . . Forced unbundling with its attendant regulatory uncertainty would likely slow down the investment in the development of broadband last mile investment. Investing under the shadow of uncertain regulatory rules in an innovative service exacerbates the already substantial risks associated with that investment.

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 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 (Nov. 13, 1998). Accordingly, the Commission should not require incumbent carriers to unbundle advanced services equipment.

VI. Conclusion.

During the last 3 years, competing carriers have widely deployed their own local network facilities and are using them to provide local telephone service on a competitive basis. Given these facts, the Commission needs to 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

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Dated: May 26, 1999

KAHN 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 1996)	

**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 business address is 308 N. Cayuga Street, Ithaca, NY 14850. I am the Robert Julius Thorne Professor of Political Economy, Emeritus, Cornell University and Special Consultant with National Economic Research Associates, Inc. (NERA).

2. I received my A.B. degree summa cum laude from New York University and my Ph.D. from Yale University, in 1942. I served as Associate Economist with the Antitrust Division of the U.S. Department of Justice in 1941-42; came to Cornell University as Assistant Professor in 1947 and have served successively as Chairman of the Department of Economics, Robert Julius Thorne Professor of Political Economy, member of the Cornell Board of Trustees and Dean of the College of Arts and Sciences. I have been Chairman of the New York State Public Service Commission and of the (U.S.) Civil Aeronautics Board; and in my capacity as Advisor to President Carter on Inflation, I participated actively in the successful efforts of his Administration to deregulate both the trucking industry and the railroads. I am the author of