

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

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

**REPLY COMMENTS OF ALCATEL USA, INC.**

**I. The Broadband Market is Distinct from the Local Exchange and Exchange Access Markets.**

In its comments to the Commission in this proceeding, Alcatel USA, Inc., (“Alcatel”) argued that the broadband access market is separate and distinct from the local exchange and exchange access markets in which the ILECs are held to possess dominant market power. Alcatel’s position was based on the obvious distinction that broadband services offer a suite of services capable of being used contemporaneously, such as high-speed Internet access, voice, and video, that is unavailable through legacy, dial-up Internet access. Moreover, Commission precedence acknowledged this distinction and separate market in the Time Warner/AOL Merger,<sup>1</sup> which recognized that advanced services were a distinct product market, in its definition of “advanced services” in several Reports to Congress pursuant to Section 706 of the Act,<sup>2</sup> and the Commission’s

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<sup>1</sup> See *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner, Inc., and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee*, 16 FCC Rcd 6547, ¶69 (2001).

<sup>2</sup> In the Commission’s reports pursuant to Section 706 of the Communications Act, the Commission has defined “advanced services” to describe services and facilities with upstream (customer-to-provider) and downstream (provider-to-customer) transmission speed of more than 200 kbps. *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Third Report, CC Docket 98-146, FCC No. 02-33 (rel. Feb. 6, 2002)

analysis in the ILEC network unbundling proceeding, particularly its decision not to unbundle, generally, the packet switching network element.<sup>3</sup>

Several parties submitted comments in this proceeding that argue the Commission should not recognize the broadband access market as a separate and distinct market from the exchange access or local exchange markets, thus justifying continued heightened regulation of the ILEC provision of broadband services. Covad Communications, for instance, argues that consumers generally consider broadband Internet access to be a substitute for dial-up access to the Internet, suggesting that the dial-up and broadband Internet access services do not constitute separate markets.<sup>4</sup> This argument is not compelling and is flawed because the standard of substitutionability that is used to determine whether two products are in the same market,<sup>5</sup> must engage in the full analysis of both products. It is true that broadband is a substitute for narrowband services, but narrowband is not a substitute for broadband. Broadband services are more vast and users more reliant on these services. Broadband users, on average, spend more time online,<sup>6</sup> and while they account for only 21 percent of the online population, they now

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“Third 706 Report”). The Commission also uses the term “high-speed” to describe services with over 200 kbps in at least one direction. *Id.* Such speeds are unachievable with traditional circuit-switched infrastructure, which are limited to speeds generally between 14.4 kbps and 53 kbps, unless the significant investments are made to condition the local loop and split the circuit-switched traffic from the Internet traffic. See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Universal Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking (“Wireline Broadband NRM”) (rel. Feb. 15, 2002) fnt. 18.

<sup>3</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996* (“UNE Remand Order”) at ¶308; codified at 47 CFR §51.319(c)(4).

<sup>4</sup> *Comments of Covad Communications Company*, CC Docket No. 01-337, fnt. 9. (“Covad Comments”).

<sup>5</sup> The standard of substitutionability often used in antitrust situations involves the concept of reasonable interchangeability of use. This does not mean that two products be functionally equivalent, rather only that they satisfy a similar customer demand. See *Comments of Sprint Corporation*, CC Docket No. 01-337 (filed March 1, 2002) 3. (“Sprint Comments”).

<sup>6</sup> Broadband users spend 27 percent more time online overall, average 37 percent more sessions a month, and view 17 percent more pages a month. *What do Broadband Customer Want*, CNET News.com, October 31, 2001, <http://news.cnet.com>.

account for a majority of the time online.<sup>7</sup> Parties that argue the broadband market should not be recognized as a separate and distinct market and that the ILECs should remain subject to heightened regulatory status due to their market power in their legacy markets fail to provide compelling evidence or statistics that consumers view narrowband services as substitutable to broadband and that a subtle price rise of broadband services would compel significant numbers to revert back to narrowband services.

Comptel's argument that the broadband access market is not distinct from the two markets in which the ILECs' are held to be dominant appears to be based, in part, on the fact that many of the same facilities used to provide legacy voice services are used to provide xDSL services, such as loops and subloops.<sup>8</sup> So long as the ILECs have market power over the underlying facilities, they have market power over any retail services they provide over those services.<sup>9</sup> Such an argument does not address the specific issue in this proceeding of whether the broadband service provided by the ILECs is distinct from legacy services in which it is held to be dominant. Furthermore, Commission precedent has recognized that an ILEC can provide a competitive service over its legacy facilities and be relieved from many dominant carrier regulations,<sup>10</sup> and Comptel has failed to demonstrate why the Commission should depart from such a precedent in this proceeding.

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<sup>7</sup> *Broadband Access Usage Outpaces Dial-Up Access*, digitalMass, March 5, 2002, <http://digitalmass.boston.com/news/2002/03/05/broadband.html>.

<sup>8</sup> *Comments of the Competitive Telecommunications Association*, CC Docket No. 01-337 (filed Mar. 1, 2002) 5. ("Comptel Comments")

<sup>9</sup> *Comptel Comments*, at 6.

<sup>10</sup> *Amendment of Section 64.702 of the Commission's Rules and Regulations* ("Computer II"), 77 FCC 2d 384 (1980) ("Computer II Final Decision"), *recon.*, 84 FCC 2d 50 (1980) ("Computer II Reconsideration Order"), *further recon.*, 88 FCC 2d 512 (1981) ("Computer II Further Reconsideration Order"), *affirmed sub. Nom. Computer and Communications Industry Association v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). *Computer III Further Remand Proceedings: Bell Operating Company*

Finally, another argument by Comptel that the Commission should refrain from engaging in a detailed market analysis since the retail broadband market is nascent and highly volatile is not compelling due to the importance of this market and the amount of information gathered by the Commission.<sup>11</sup> The Commission has released several Reports to Congress concerning the status of broadband deployment in the United States since 1999, and independent information concerning the broadband access market is widely available.<sup>12</sup>

## **II. The ILECs do not Possess Market Power in the Separate and Distinct Broadband Access Market.**

The ILECs do not possess market power in the separate and distinct broadband access market due to their lack of majority or plurality market share, their lack of control over bottleneck facilities, and the strength and viability of their competitors. In its comments, Alcatel noted that of the almost 10 million High-Speed Lines in the United States, ADSL services possessed only 28% of the market, whereas cable modem providers maintained a sizeable advantage with a 53% market share.<sup>13</sup> The vigorous competition that has developed in the broadband access market is not threatened by any potential anticompetitive behavior by the ILECs due to their lack of control over

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*Provision of Enhanced Services and 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements*, Report and Order, 14 FCC Rcd 4289 (“Computer III Report and Order”).

<sup>11</sup> *Comptel Comments*, at 3.

<sup>12</sup> See *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*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398 (1999) (“First 706 Report”); *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*, CC Docket No. 98-146, Second Report, 15 FCC Rcd 20913 (2000) (“Second 706 Report”); and *Third 706 Report*.

bottleneck facilities, their inability to increase the costs of their competitors, and the strength of their competitors.

Parties claiming that the ILECs do possess market power and/or the ability to adversely affect competition have relied upon inaccurate, outdated information or used an improper means of analysis to arrive at these conclusions. AT&T claims that “DSL is thriving and growing much faster than cable modem service,”<sup>14</sup> and that the “ILECs do not compete with cable operators in providing broadband services to residential customers in many places.”<sup>15</sup> Comptel states that “the overwhelming majority of end users in the mass market cannot choose between xDSL and cable modem services because the service territories are still very limited and largely non-overlapping.”<sup>16</sup> As support for these conclusions, Comptel cites to data in one of its December 2000 filings and a General Accounting Office Survey of Internet Users published in February 2001.

More recent independent data, the Commission’s own data, and the conclusions the Commission arrived at based on that data refute the arguments that cable modem is not an effective competitor to ILEC provided xDSL services. On March 11, 2002, the National Cable & Telecommunications Association stated that an additional 875,000 new high speed cable modem subscribers signed up for service during the fourth quarter of 2001 and that cable modem is now available to more than 70 million U.S. households.<sup>17</sup> The cable industry has invested more than \$55 billion since 1996, including \$14.29

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<sup>13</sup> See *Comments of Alcatel USA, Inc.*, CC Docket No. 01-337, 11 (“Comments of Alcatel”).

<sup>14</sup> *Comments of AT&T Corp.*, CC Docket No. 01-337, 3 (“Comments of AT&T”).

<sup>15</sup> *Id.* at 4.

<sup>16</sup> *Comptel Comments*, at 11.

<sup>17</sup> *Consumer Demand for Cable’s Broadband Services Continues to Grow*, National Cable & Telecommunications Association, March 11, 2002. <http://www.ncta.com>.

billion in 2001 alone.<sup>18</sup> The lack of overlapping xDSL and cable modem services is not as profound as Comptel alludes; in fact, cable broadband is now available to 74.5% of U.S. homes, having increased from 56.1% in 2000 and 34.4% in 1999.<sup>19</sup> Further, AT&T's allegation that xDSL is thriving and growing much faster than cable modem service is contradicted by the Commission's most recent Report to Congress pursuant to §706, which states cable modem has an almost two to one lead in subscribers and its growth rate in the most recent reporting period exceeded that of DSL.<sup>20</sup>

Likewise, wireless and satellite technologies provide beneficial competitive forces to the ILEC, have been recognized as alternative technological platforms by the Commission,<sup>21</sup> and are substitutable broadband delivery platforms. Satellite services offer a competitive alternative to ILEC based broadband services particularly in those areas not passed by cable plant or where the cable plant has not been upgraded to provide broadband access services. In the near term, one-half of the U.S. population will purchase one of a variety of services (Internet, video, radio) from a satellite provider,<sup>22</sup> providing a wide base from which the broadband access services can be marketed. Thus far, Hughes Network Systems has surpassed 100,000 subscribers for its two-way satellite Internet service, and a competing provider, Starband, has 40,000 subscribers.<sup>23</sup>

While the first generation of fixed wireless products were not as successful as the other broadband access platforms, it is estimated that this market will grow exponentially

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<sup>18</sup> *Cable & Telecommunications Industry Overview 2001*, NCTA, December 2001, ("Cable Industry Overview"). <http://www.ncta.com>.

<sup>19</sup> *Id.*, at 2.

<sup>20</sup> *Third 706 Report*. As of June 2001, there were 2,693,834 ADSL subscribers and 5,184,141 cable modem subscribers in the U.S., and the rate of growth over the most recent reporting period was 36% for the former and 45% for the latter. *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Half of U.S. Expected to Subscribe to Satellite Service*, Communications Daily (March 8, 2002) 3.

<sup>23</sup> *Id.*

in the next few years.<sup>24</sup> Recently, the Commission released an Order that set forth the technical requirements for the deployment of ultra-wideband (“UWB”) technology in applications, including short-range, high-speed data transmission.<sup>25</sup>

### **III. Commission Policy on Broadband Regulation Should Focus on the Service and Remain Technologically Neutral.**

Any policy adopted by the Commission in this proceeding should focus on the specific issues noticed in the NPRM, remain technologically neutral, and allow the markets to decide which technology or platform is best suited for delivering broadband services to consumers. The strength of the broadband access market is the intermodal, facilities-based competition that has developed among and between various platforms. Providers should be allowed to make market-based, innovative investment and facilities decisions that are in the best interest of their shareholders and based upon the most appropriate technology available.

In its comments in this proceeding, Corning makes the argument that ILEC provided broadband or advanced telecommunications service delivered over fiber-to-the-home technology (“FTTH”) could be granted a limited exception and provided nondominant status,<sup>26</sup> that FTTH is on a cost and maintenance parity with copper-based solutions,<sup>27</sup> and that the Commission has a mandate under Section 706 to accelerate fiber-based solutions in the market.<sup>28</sup> Potentially, these comments could infer that only those

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<sup>24</sup> *Fixed Wireless Broadband Still Shows Promise*, Broadband Week, <http://www.instat.com>.

<sup>25</sup> *Commission Approved UWB Order, Agrees to Revisit Limits*, Communications Daily, Feb. 15, 2002, 3.

<sup>26</sup> Such status would only be as an alternative to the general regulatory relief for ILEC provided broadband services. *Comments of Corning, Incorporated*, CC Docket No. 01-337 (filed Feb. 28, 2002) (“Comments of Corning”) 7.

<sup>27</sup> *Comments of Corning*, at 5.

<sup>28</sup> *Id.*, at 4-5.

services provided over fiber based networks are capable of delivering broadband services, thus fiber-based solutions are exclusively eligible for the nondominant regulatory status sought by the ILECs.

While Alcatel agrees with Corning that optics and fiber-based broadband solutions have enormous potential,<sup>29</sup> it urges the Commission to refrain from making any premature regulatory decisions based on one particular technology. First, the Commission has a statutory obligation to remain technologically neutral under Section 706 of the Act, which obligates the Commission to “...encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.”<sup>30</sup> The definition of ‘advanced telecommunications capability’ in Section 706 specifically includes the clause “without regard to any transmission media or technology,”<sup>31</sup> thus articulating Congress’s mandate and intent for the Commission to not align itself with any one technology to deliver these services. Moreover, the Commission has repeatedly confirmed its technological independence by praising the multiple platforms by which advanced telecommunications services are being delivered, including wireline, cable, terrestrial wireless, and satellite.<sup>32</sup> Alcatel is not aware of any evidence

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<sup>29</sup> Alcatel itself has a vested interest in optics. Through its Alcatel Optronics division, Alcatel designs, manufactures and sells high performance optical components, modules and integrated sub-systems for use in terrestrial and submarine optical telecommunications networks. Alcatel is a leading supplier of DWDM lasers, photodetectors, optical amplifiers, high-speed interface modules and key passive devices such as arrayed waveguide multiplexers and Fiber Bragg Grating filters. It also has experience in integrating active and passive components and modules into sub-systems. The Optronics Division is part of Alcatel's Optics Group which comprises Alcatel's world-leading activities in optical networking, including submarine and terrestrial transmission systems, fiber optics and optical components.

<sup>30</sup> *Telecommunications Act of 1996*, Pub. L. 104-104, 110 Stat. 56 (1996), §706(a) (reproduced in the notes under 47 USC §157).

<sup>31</sup> Pub. L. 104-104, at §706(c)(1).

<sup>32</sup> See *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, universal Service Obligations of Broadband Providers, Computer II Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements*, Notice of Proposed Rulemaking, CC Docket Nos. 02-33, 95-20, 98-10, FCC 02-42, ¶4 (Feb. 15, 2002); See Also *Inquiry Concerning High-Speed Access to the Internet Over Cable*

on the record that would justify the Commission departing from this technological neutrality that has resulted in this plurality of delivery platforms for broadband services.

Second, this proceeding is examining whether the ILECs should be held nondominant in their provision of broadband services, and any discussion concerning the specific underlying technology by which such services could be delivered is not germane to the proceeding and was not properly noticed in the NPRM. Alcatel and Corning arrive at similar conclusions that the ILECs' broadband access services are a separate and distinct market from the exchange access and local exchange markets and their services in this market should be relieved of the heightened, dominant carrier regulations.<sup>33</sup> However, a potential decision concerning regulatory distinctions based solely on underlying technologies employed by the ILECs or their competitors was not raised in the NPRM. Due to this lack of notice concerning a potential departure from the Commission's technological neutrality precedent, any decision that overtly or tacitly favors any one technology or substantiates a nondominance decision exclusively on such a technology could be exposed to judicial scrutiny.

Third, a Commission decision providing regulatory relief exclusively to fiber-based solutions could have the unintended effect of mischaracterizing copper-based broadband solutions as being vastly inferior and having reached their peak potential when compared with fiber based solutions. Alcatel is involved in research and development of both copper and fiber based broadband solutions and agrees with Corning that fiber has great bandwidth and maintenance potential. However, the current copper-based plant

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*and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, GN Docket No. 00-185 & CS Docket No. 02-52 (rel. Mar. 15, 2002) ¶6.

<sup>33</sup> *Comments of Corning*, at 11.

owned and operated by the ILECs is not wholly incapable of meeting present and near future broadband demands and should not be exempted from any potential regulatory relief. A wide variety of DSL services are capable of enabling "...users to originate and receive high-quality voice, data, graphics, and video telecommunications"<sup>34</sup> including:

- Asymmetric digital subscriber line ("ADSL") – The most widely deployed form of DSL technology. Typically, ADSL can generate downstream speeds of 8 Mb/s and upstream speeds of 640 Kb/s. New microelectronic chip sets have extended the reach of ADSL to 25,000 to 30,000 feet from the central office.
- Symmetric digital subscriber line ("SDSL") – generates speeds of 2.3 Mb/s upstream and downstream.
- Very high bit rate digital subscriber line ("VDSL") – In trials, VDSL has produced speeds between 51 and 55 Mb/s over lines of up to 1,000 feet. VDSL connects to neighborhood optical network units in the Next Generation Digital Loop Carrier, which connect to the telephone company's central office main fiber network.
- Symmetric High Bit Rate Digital Subscriber Line ("SHDSL") – a new standard that has been adopted by the ITU generates downstream and upstream speeds up to 2.3 Mb/s over a dingle pair of copper wires over distances of up to 12,000 feet.<sup>35</sup> This reach can be extend to 35,000 feet with the use of repeaters.

The ILECs and CLECs currently possess over two billion miles of copper-based plant in the United States and, absent a mandate or regulatory incentive from the Commission, they would be reluctant to skip the next generation of copper-based broadband solutions in favor of a massive fiber overhaul, unless the marketplace dictated such a decision. The fiber-based solutions advocated by Corning are highly desirable, but they most likely will be deployed incrementally in new builds and network overhauls over a period of time. A Commission decision that provided beneficial deregulatory status exclusively to fiber-based networks, while maintaining heightened regulations for broadband services provided over the existing copper plant, would conflict with the statutory obligations of Section 706, could be subject to judicial scrutiny, and would be an unjustified departure

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<sup>34</sup> Pub. L. 104-104, at §706(c)(1).

<sup>35</sup> *New DSL Standard Offers Faster Speeds*, CNET.com, Sept. 21, 2001, <<http://news.com.com>>.

from the Commission's technological neutrality that has served the broadband marketplace well thus far.

#### **IV. Conclusion**

Alcatel strongly supports the positions advocated in this docket that seek nondominant status for ILEC provided broadband services. The broadband access market is separate and distinct from the local exchange or exchange access market, and the ILECs fail to possess market power in this market. Unjustified heightened regulations governing ILEC broadband access services not only impair the ILECs' ability to provide competitive services, but such regulatory burdens hamper competition throughout this market. Finally, Alcatel urges the Commission to adopt a decision that is predicated on the ILECs lack of market power and inability to unilaterally impede competition in the broadband access market, but also one which does not rely on an individual underlying technology to justify this decision or segregate dominant from nondominant markets.

Respectfully Submitted,

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