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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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

In the Matter of Inquiry Concerning the Deployment	)	
Of Advanced Telecommunications Capability	)	
To All Americans in a reasonable and Timely Fashion,	)	CC Docket No. 98-146
And Possible Step to Accelerate Such Deployment Pursuant	)	
to Section 706 of the Telecommunications Act of 1996	)	

Comments of

United Homeowners Association
Alpha One
American Council on Education
National Braille Press
National Association of Commissions for Women
The National Trust for the Development of African American Men
National Association for College and University Business Officers
Latin American Women and Supporters
Keep America Connected
Harlem Consumer Education Council
National Latino Telecommunications Task Force
Northern Virginia Resource Center for the Deaf and Hard of Hearing
MaineCITE Coordinating Committee
Florida Association for the Deaf
American Telemedicine Association
World Institute on Disability

September 14, 1998

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Summary

The undersigned organizations welcome the opportunity to respond to the Commission's Notice of Inquiry (NOI) concerning the deployment of advanced telecommunications capability to all Americans in a reasonable and timely basis, and the consideration of possible steps to accelerate such deployment, pursuant to Section 706 of the Telecommunications Act (Act) of 1996. The matters addressed by the NOI are crucial to achieving the profoundly important goals set forth by the Act.

Commenters represent a broad range of interests and organizations.[1] We are brought together on this filing because of our common view that the potential for the use of advanced telecommunications capabilities can contribute significantly to the quality of life in this country for all Americans.

To achieve this potential, two things are needed: high-speed, high-capacity connections to broadband networks where we live, work, learn and play, and sufficient capacity in the national data network or the Internet backbone to allow access for all Americans. The intent of Section 706 of the Telecommunications Act of 1996[2] (Act) was to help hasten the achievement of these goals.

The statements presented here reflect a review each of the three general areas addressed by the NOI: 1) advanced telecommunications capability, 2) reasonable and timely deployment and 3) removing barriers to infrastructure investment and promoting competition. We identify and respond to specific questions (*in italics*) posed by the NOI that we deem as fundamental to fulfilling the intent of Section 706 and realizing the goals

[1] See Appendix 1 for a description of each organization and its interests.
[2] Public Law 104-104, February 8, 1996, 47 U.S.C. Section 157.

of the Act. We assert that current policies and business forces are effectively undermining the realization of those goals by impeding or discouraging badly needed new broadband competition and investments. These policies and forces are, in fact, helping create a telecommunications environment wholly at odds with the intent of Section 706 and the broader vision embodied in the Act. Access to the Internet, and in particular to the multi-media World Wide Web, continues to be hampered by sluggish and piecemeal connections and unreliable service.

More alarmingly, we seem to be witnessing separate and unequal information revolutions in which access to the Internet is increasingly characterized by not merely a single "digital divide," but rather by multiple divides: between rich and poor, white and non-white, large businesses and small, and rural and urban residents.

To remedy this situation, we strongly urge the FCC, at the earliest possible date, to fundamentally alter its policy by removing regulatory barriers and disincentives to new facilities-based competition and investments in the broadband market

This can only be achieved by allowing local telephone companies to set market prices for advanced data services, by not requiring them to sell advanced data services at mandated discounts to competitors, and by allowing them to deliver broadband services across inter-LATA boundaries. At the very minimum, in-region inter-LATA relief should be granted, to help expand broadband access and ease Internet congestion in heavily populated areas such as the Northeast. Requiring separate subsidiaries for delivering broadband services will not help engender affordable access for citizens; however, if the Commission deems that separate subsidiaries are necessary, it should

instead adopt the "more flexible, competition-oriented" model it established in its *Computer III* proceeding.

I. Advanced Telecommunications Capability

On the whole, how much deployment of advanced telecom capability is occurring in the U.S., and is it occurring in a reasonable and timely fashion?

Deployment of advanced telecom capability is not occurring on a reasonable and timely basis, and that capability which is being deployed is grossly insufficient to meet high bandwidth needs and to ameliorate existing Internet access disparities. In fact, the deployment patterns of the most essential element of advanced telecom capability – the Internet backbone – are only exacerbating those disparities.

Control of the Internet backbone is concentrated in the hands of a small number of large companies (just three firms control or own about 70 percent of the backbone[3]) who continue to under invest in new capacity as demand for new bandwidth grows very rapidly.

The handful of companies who control the Internet backbone also primarily target their services at large, high-volume user businesses, urban residents and those who can afford direct backbone connections. Generally, everyone else -- small businesses, rural residents and middle- and low-income persons -- is at a marked disadvantage, whether it is defined in terms of bandwidth access, costs, quality and speed of service, or some combination of these things.

To illustrate, of the 34 backbone network providers, only a few provide residential service. And only 30 cities in the United States, where many of the largest businesses are

located, have major backbone interconnection points. Absent the wake-up call of new competition, many of the larger backbone operators have shown little inclination to expand their backbones to regions beyond the largest and most lucrative metropolitan areas.

Many rural areas of the country and certain states, such as Minnesota, Montana, West Virginia and Maine, are not even near backbone interconnection points. And since traffic is often backhauled from these areas to major interconnection points hundreds of miles away using smaller and slower lines, the residents of these areas are routinely burdened with slower access speeds and higher costs.

The lack of sufficient backbone investments likely has an adverse ripple effect by also discouraging deployment of advanced broadband services to the home and home use of the Internet. According to a recent survey by Keynote Systems, average speeds for transport across the backbone networks are only in the range of 40 kilobits per second (kbps).[4] Not only is that slower than the 56-kbps modems many consumers have purchased recently, it is also much slower than the 128 kbps speed of the ISDN services Bell Atlantic has made available to well over 90 percent of its customers, and vastly slower than speeds of xDSL, cable-modems, and other new technologies. Warned the editor of the authoritative Boardwatch Magazine: "[I]ncreasing bandwidth to the home or office beyond ISDN speeds will probably *not improve the Web experience for end users until backbone connectivity improves dramatically....*"[5] (emphasis added).

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[3] "The Need For Facilities-Based Competition Internet Backbone Competition," by Robert C. Gibson, May 6, 1998, p. 9.
[4] "Net Jams Hinder Faster Connections," CNET News.Com, October 22,1997
[5] "First Independent Ranking of Internet Backbones Rates Compuserve Tops in Performance,"

II. Reasonable and Timely Deployment

What is the nature of the demand for advanced telecommunications capability and advanced services? Does the explosive growth of the Internet indicate an immediate demand for Internet access at higher speeds than are now standard, and for other forms of advanced services?

The rapid growth of the Internet clearly demonstrates an immediate demand for Internet access at higher speeds than are now standard and for other forms of advanced services. But as suggested earlier, the challenges that policymakers must face deal less with the rapidity of the demand, and more with the failings of those who control supply to respond to demand.

The consequences are not insignificant. Access to the Internet, and in particular to the multi-media World Wide Web, continues to be hampered by sluggish connections and unreliable service. According to a recent study by NetRatings, as reported in *The New York Times*, "the average Internet user wastes just over nine minutes per day, or 55 hours per year, waiting for Web pages to load -- fully 26 percent of all time on the Internet."[6] The continuing "World Wide Wait" not only means slower Net surfing, it undoubtedly also translates into a slower development of all types of Internet activity, from commerce to online education.

The adverse effects of failing to meet demand for Internet and advanced services go well beyond slow Internet surfing. Much is at stake, affecting all aspects of our society.

Boardwatch Magazine press release, June 25, 1997 (see http://www.keynote.com/company/announcements/pr062597.html.)

Telemedicine, distance learning, video relay, telecommuting and other on-line applications to homes, schools, libraries, colleges and universities, health care facilities, and workplaces will only be possible if we have affordable high-speed connections to where we live, learn, work and play and if the Internet backbone grows to meet new demands for capacity and speed.

This is not a distant issue of tomorrow but an urgent need of today. Many of our large, respected universities have been rightly complaining about their failure to obtain high bandwidth Internet access for crucial research endeavors. Brown University, for example, recently stated:

> Brown is deeply concerned that the emerging Internet2 and vBNS network is dominated by traditional IXC providers such as Sprint and MCI. Brown believes the best means to accomplish affordable access to the future wide-area broadband networks is to allow healthy competition among all potential providers. Currently Brown is experiencing the failures of lack of competition for high bandwidth access in our attempt to acquire a DS3 link from Providence to Boston. Out service requests to MCI have been rejected due to `lack of capacity.' Lack of capacity has created a demand-supply relationship that is not in Brown's best interest. [7]

Several colleges and universities have echoed these views.[8] As members of the I2 Consortium and regional Internet consortia, they recognize not only the need for new Internet backbone, but also the important role that new competition from local telephone companies can play in the high-end data market.

Demand for high-speed data services and Internet backbone for educational

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[6] "Report Puts a Number on the World Wide Wait," The New York Times, Cybertimes, August 8, 1998.
[7] Letter from Brown University's Director of Communications in support of Bell Atlantic's request for relief from interLATA restrictions on broadband networks, November 14, 1997.
[8] In addition to Brown University, petition supporters include Boston University, George Mason University, West Virginia University, Virginia Polytechnic and State University, The University of Maine System, The Massachusetts Institute of Technology, NYSERNet, Virginia Commonwealth University, and The Virginia Community College System.

purposes will likely increase markedly in the near future, in part, as a result of forward-looking provisions of the Act. The Snowe-Rockefeller provision[9] provides discounts on telecommunications services, including connections, inside wiring and Internet services, to schools, libraries and rural health care providers. When the benefits of Snowe Rockefeller are fully realized, demand for Internet backbone will soar as teachers, students, librarians, health care providers and others use the Internet as an integral part of their daily activities. But without incentives for the deployment of new backbone, the Internet may prove to be of limited value as a teaching and informational resource or as a tool to level the playing field for students with disabilities. The requirements of Section 255 of the Act that people with disabilities have access to advanced telecommunications capabilities may only be fully realized if high-speed, high-capacity data services are widely available.

A school can be connected to the Internet with xDSL service or a T-1 line and students can speed to the Internet over xDSL connections from their homes, but if they only receive data at the equivalent of 28.8 kbps or 56.6 kbps modem speed, the full potential of the Internet in the classroom will not be achieved.

To the extent that any party believes that advanced telecommunications capability is not being deployed in a reasonable and timely fashion, or foresees that it will not be, they should state the reasons why.

In addition to concentration of Internet backbone control, federal policies are serving to impede or discourage the new competition and investment necessary to alleviate the problems of limited backbone capacity and uneven access to broadband networks.

[9] Public Law 104-104, February 8, 1996, 47 U.S.C. Section 254.

These policies do not appear to reflect a full appreciation of the inherent differences between the geographically sensitive voice network and the geographically insensitive Internet. Longstanding concepts developed around the circuit-switched network such as "local" or LATAs and "long distance" cannot, nor should be applied to a packet-switched Internet where geographical boundaries are virtually meaningless and where, in fact, communications are often local and global simultaneously.

Nonetheless, the Commission has continued to impose interLATA restrictions on deploying packet-switched networks, even though the concept of boundaries is meaningless on the Internet.

As long as interLATA restrictions keep new entrants out of the backbone market, the lack of competition will continue to discourage or limit new investments in backbone capacity.

There are other major regulatory disincentives to expanding broadband service. The Commission is requiring Bell Atlantic and incumbent local exchange carriers (ILECs) to sell advanced data services at mandated large discounts to competitors. This policy is not only an obvious disincentive to investment in advanced data services by the ILECs, but also to new facilities investments by their competitors (CLECs). What is the incentive for these competitors to build their own local facilities to deliver broadband services if they can simply do so by utilizing the ILECs' networks at a large discount?

III. Removing barriers to infrastructure and promoting competition

How might the FCC apply each of the techniques (price cap regulation, forbearance and measure that promote competition, etc.) to aid the deployment of advanced telecommunications capability. In the case of forbearance, what statutory provisions or rules should the Commission forbear, and how would such forbearance satisfy the necessary statutory criteria?

We urge regulatory forbearance for local telephone companies in three areas: (1) pricing, (2) resale, and (3) interLATA or long distance data service. We urge that local telephone companies (1) be allowed to set market prices for advanced data services, (2) not be required to sell advanced data services at mandated discounts to competitors for purposes of resale,[10] and (3) be allowed to deliver data services over LATA boundaries. At the very minimum, in-region inter-LATA relief should be granted, to help expand broadband access and ease Internet congestion in heavily populated areas such as the Northeast.

We are concerned with the Commission's recent proposal to require ILECs to establish separate subsidiaries to deliver advanced broadband services, in effect to mandate the creation of new CLECs. This is problematic given that CLECs have been reluctant to deploy advance telecommunications services except for high-end business users. The *San Jose Mercury News*, for example, reported this spring that businesses are "the main beneficiaries" of new CLEC-offered DSL services in the Bay Area area; "[h]ome users, on the other hand, suffer in comparison to those in less competitive markets..." According the News, the Vice President of one of those CLECs, Covad, said

[10] The case for excluding high-speed data services from the requirements of Section 251 of the Telecommunications Act of 1996 and, more specifically, from the Commission's UNE/TELRIC pricing regime is convincingly illustrated in the amicus brief submitted to the Federal Court of Appeals for the 8th Circuit by the Alliance for Public Technology, etc. al. in the interconnection case (Iowa Board of Public Utilities v. Unites Stated of America).

that while half of his company's lines run to home, they are for high-speed connections to corporate computer networks that are paid for by the employer. [11]

We, in short, question whether forcing the creation of new CLECs offers the most effective strategy to engender affordable new residential services.

If the Commission believes a separate subsidiary is necessary, we urge it to adopt the "more flexible, competition-oriented" model, of employing nonstructural safeguards, it established in its *Computer III* proceeding. In that proceeding, the Commission concluded that the "benefits of structural separation were outweighed by the costs, and that nonstructural safeguards could protect competing ESPs from improper cost allocation and discrimination by the BOCs while avoiding the inefficiencies associated with structural separation."[12]

If granted, the actions recommended here will provide important incentives for local telephone companies to offer high-speed data services to homes, schools, health care facilities, universities, customers with disabilities,[13] and small businesses in their regions.

For example, with the appropriate regulatory incentives, Bell Atlantic's new xDSL service can reach up to 80 percent of telephone subscribers in the Bell Atlantic region.

[It should be noted that the commenters do not stake a claim for xDSL nor do we argue that it is the preferred technology for delivering high-speed data services to homes, schools, health care facilities, universities and colleges, small businesses and community

[11] "Home DSL Costs A Bundle In Bay Area – Competition Hasn't Reduced Prices," San Jose Mercury News, March 17, 1998.
[12] Further Notice Of Proposed Rulemaking, FCC 98-8, January 30, 1998, p.10.

service organizations. xDSL technology has limitations. xDSL speeds decrease with distance from a telecommunications central office and upstream speeds are slower than downstream speeds, although still significantly faster than the advertised 128Kbps speed of ISDN service. If granted, however, regulatory forbearance will provide appropriate regulatory incentives for telecommunications companies to offer xDSL and other high-speed data services to consumers.]

Commenters are optimistic that plans announced by several local telephone companies to deploy xDSL service over twisted copper pairs are the first in a series of infrastructure upgrades that will allow high quality two-way video to be delivered to homes, schools, health care facilities, universities and colleges, small businesses, and other facilities. This is the ultimate goal of Section 706. Its realization will, for example, allow people with hearing disabilities to sign to each other over the telephone. xDSL is an important step toward this goal.

Just a few years ago, information that sped over the Internet was largely in the form of text. Today, on-line applications are filled with complex graphic material and streaming audio and video. Higher bandwidth and faster speeds are necessary so that consumers, students, teachers, health care professionals, businesses, people with disabilities, community organizations, government representatives and others can benefit from the Internet's potential.

The wider development of telemedicine, for example, will not occur absent the wider deployment of high-bandwidth networks. The bandwidth requirements for advanced telemedicine are significant, but so are the potential benefits. Home health care

[13] Pamela Gregory, Deputy Director of the FCC's Disabilities Issues Task Force, believes that Section 706 "[can] significantly benefit children with disabilities as well as children without disabilities and adults."

in rural regions -- where it is often a necessity -- can be particularly facilitated and enhanced through the increased availability of broadband services.

To further illustrate the point, Americans who are blind were able to surf the net quite well in the days of text-based services. Today, they face new barriers in using information included in graphics and other components of web pages. The rapid deployment of advanced telecommunications services will help overcome these barriers.

Regulatory forbearance will encourage the harnessing of the market's best forces to help attain these goals.

IV. Conclusion

There is growing evidence that certain federal policies and business forces are helping create a telecommunications environment wholly at odds with the intent of Section 706 and the broader vision embodied in the Act. Lacking broadband access, most Americans have yet to secure the benefits intended by Section 706. Many are also paying the costs through slow, inferior quality Internet connections.

As Chairman Kennard noted:

> We have in this country already 40 million households that have home computers and most of those computers have more computing power than can be accommodated by the pipe into the home...So we've got to find ways in this country to increase bandwidth capacity.

More disconcertingly, we seem to be witnessing separate and unequal information revolutions in which access to the Internet is increasingly characterized by not merely a single "digital divide," but rather by multiple divides: between rich and poor, white and non-white, large businesses and small, and rural and urban residents.

See, Pamela Gregory. "The Telecommunications Act of 1996." 1998 Directory & Guide. 1997. Page 16.

We have already noted that the deployment patterns of backbone providers places rural residents, small businesses and the poor at an access and service disadvantage. In fact, an assessment of the Internet's infrastructure by New York's University's Taub Urban Research Center has found that "less urbanized areas, economically distressed cities and interior regions lag the nation in Internet development."[14] Another recent New York University study also suggests that the poor rely on schools, libraries and community centers for their primary access to the Internet -- public institutions which are still struggling to make full use of standard Internet access, much less broadband access.[15] And Vanderbilt University documented "a racial discrepancy on the Internet, reporting that "[e]ven whites who do not have home computers found it easier to get on the World Wide Web than blacks." [16]

Relief from regulatory barriers to deployment of advanced telecommunications services under Section 706 will not likely by itself fully bridge all these divides. But it will certainly help mitigate their severity. Relief will provide important incentives for investments by local telephone companies -- and their competitors -- to develop and deploy broadband services in areas currently not served or under served. Relief will also encourage badly needed new investments by the local companies, and their competitors, in the Internet backbone.

Regulatory relief, in short, is a vital prerequisite for helping meet the basic goals of Section 706 and the Act.

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[14] "Net Equity: Class Divisions Emerging on the Net," by Mitchell L. Moss and Steve Mitra, Taub Urban Research Center, New York University, August 1998.
[15] "Digital divide an income gap," CNET News.Com, August 20, 1998.
[16] "Racial Discrepancy on Net," CNET News.Com, April 16, 1998.

Few actions will do more to help fulfill the Act's greatest promise: to ensure that all Americans have an opportunity to harvest the myriad benefits of the digital revolution.

Respectfully submitted,

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ALPHA One

American Council on Education

National Braille Press

National Association of Commissions for Women

The National Trust for the Development of African American Men

National Association of College and University Business Officers

Latin American Women and Supporters

Keep America Connected

Harlem Consumer Education Council

National Latino Telecommunications Task Force

Northern Virginia Resource Center for the Deaf and hard of Hearing

MaineCITE Coordinating Committee

Florida Association for the Deaf

American Telemedicine Association

World Institute on Disability

Appendix 1

The United Homeowners Association (UHA) is a national, nonprofit, membership based organization that represents the interests of homeowners in Washington, D.C. UHA has an active communications advocacy program on behalf of its members. UHA has promoted the interests of homeowners in telecommunications to Congress, before the FCC and in the Courts.

Alpha One is the largest center for independent living in Maine. Its members consist of both executives and managers who have disabilities and those who do not. Consumers of services have a wide range of disabilities including physical, sensory, developmental and multiple. Four offices located statewide enable thirty professional staff, many with disabilities themselves, to respond to the diverse needs of people across Maine. Alpha One is also a leading advocate in shaping public policy to address and integrate the needs of people with disabilities especially in the area of telecommunications.

The American Council on Education (ACE) is a nonprofit association comprised of 1,850 colleges, universities and other educational associations. ACE supports efforts to enhance telecommunications services or offerings available to its members.

The National Braille Press is an organization that promotes the use of Braille by companies that communicate with the general public such as utility companies. The organization represents the interests of the blind through support of policies and programs that will promote the development of competition in all telecommunication markets to create innovative approaches thereby creating opportunities for the blind to participate in the information superhighway.

The National Association of Commissions for Women (NACW) represents local commissions established to promote the interests of women in cultural, social, and

economic fields. NACW supports policies and programs that empower women to make informed choices about all aspects of their lives. NACW has been active in the debate on telecommunications reform, supporting legislative and regulatory initiatives to e competition, thereby creating new options and services for women as consumers and in their businesses.

The National Trust for the Development of African American Men is a national, nonprofit organization based in the Washington, D.C. area, that addresses the development, needs challenges of African-Americans, especially males, in the areas of health, leadership, training, economic development, education, and crime prevention from an African view the world. The Trust operates programs throughout the country with a particular emphasis on technology training and making computers and on-line services accessible in low income and underserved communities.

National Association of College and University Business Officers (NACUBO) members are nonprofit and for-profit organizations located in the US and abroad who are all committed to excellence in higher education, finance and administration. One of NACUBO's missions is to anticipate the issues affecting higher education across the world particularly the use of telecommunications as a means of sharing information and knowledge. NACUBO supports universal access to telecommunications regardless of ethnicity, income or geographic location.

Latin American Women and Supporters (LAWS) works to improve and promote information to Latin American women and their families through education. LAWS supports efforts to ensure that Latin American women have access to new telecommunications technologies and services for education, jobs, and economic development opportunities.

Keep America Connected (KAC) is an organization comprised of groups whose demonstrated goals involve promoting a variety of telecommunications issues. The primary goal of KAC is that regardless of income, race, disability, age, ethnicity or geographical location affordable, access to the use of the modem telecommunications infrastructure and services should be available. This goal is best achieved through the rapid development of a fully competitive marketplace that ensures that consumers across the nation will have access to more services at lower prices.

Harlem Consumer Education Council, Inc is a consumer advocacy, consumer education and training organization based in New York City, New York. Among its activities is sponsorship of "Harlem Consumer Awareness Day", a joint conference with state and federal agencies.

The National Latino Telecommunications Taskforce (NLTT) was formed by a select group of Latino leaders concerned with the role of Latinos in the development of the National Information Infrastructure. The organization wants to ensure that the Latino community, minorities, the elderly, poor, the unskilled and non-English speaking immigrant populations will have an opportunity to participate in the information superhighway by ensuring that barriers to universal access are overcome.

The Northern Virginia Resource Center for Deaf and Hard of Hearing Persons is the premier self-help and advocacy organization of and for deaf and or hearing impaired persons in Fairfax County, Virginia. The group supports efforts to ensure and promote universal access and new telecommunications technologies that will empower its constituents and create new opportunities in the workforce, education and society.

The MaineCITE Coordinating Committee is Maine's "Tech Act" organization. The duty of the organization is to implement the Technology Related Assistance for Individuals with Disabilities Act making those with disabilities and the organizations which serve them aware of new technologies that can advance independence and employment for people with disabilities.

Florida Association for the Deaf is an affiliate of the National Association for the Deaf, an organization of and for deaf adults.

The American Telemedicine Association (ATA) is an association whose objective is to promote improvement in the health care industry through telecommunications technology and broad based community telecommunications applications. The organization was instrumental in forming the Telemedicine Advisory Committee advising the FCC on implementing provisions on the Telecommunications Reform Act that provide for telecommunications services to rural health care providers.

The World Institute on Disability (WID) is a private, nonprofit organization that serves a research, training and public policy development center for the disability rights and independent living movements. Its Board of Directors and staff are predominately people with a wide variety of disabilities, and its work focuses on policy areas that are critical t the integration of people with disabilities into society. WID's Division on Technology Policy serves as a resource for disability organizations and individual activists who believe that people with disabilities can be empowered through technology. Its work centers search for ways to remove and prevent barriers to such use in the design of technology.