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In the Matter of Usage of the Public Switched Network by Information Service and Internet Access Providers	CC Docket No. 96-263

Reply Comments of the Internet Access Coalition

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SUMMARY

The comments filed in response to the Commission's Notice of Inquiry present two starkly different visions of the future of the Nation's communications infrastructure. A significant portion of the commenters -- including representatives of the Information Technology industry, some interexchange carriers, and a number of consumer groups -- view the growth of the Internet and other information services as a historic opportunity. These parties have advanced concrete proposals designed to foster a highly competitive communications market, in which multiple providers will offer a wide range of broadband data communications services that can be used to access the vast resources available on-line.

Many commenters advanced proposals that are similar to the Coalition's five-point plan to allow new entrants to enter the wireline data transport market. Under this plan, the Commission would:

- unbundle the Part 69 access elements from each other;
- disaggregate the loop access element into sub-elements;
- require equal access and interconnection for competitive data service providers;
- mandate collocation of all forms of transmission, switching and information service equipment; and
- require cost-based pricing for access elements and collocation.

A number of commenters also joined the Coalition in recognizing that -- although they are not yet significant competitive alternatives -- the Commission should adopt policies to foster deployment of cable, terrestrial wireless, and satellite-based data communications services. Several commenters also emphasized the need for the Commission to allow the highly

competitive enhanced services market to continue to grow, unfettered by carrier access charges or other forms of common carrier regulation.

In contrast, a small number of commenters -- consisting primarily of some, but not all, of the incumbent local exchange carriers ("ILECs") -- perceive the growth of the Internet and other information services as a "problem." These parties have submitted studies that recycle the discredited allegation that the growth of the Internet is imposing intolerable levels of congestion on the public switched telephone network, and that Internet and other enhanced service providers ("ESPs/ISPs") are not compensating them for the costs that they impose. The ILECs ask the Commission to "remedy" this situation by imposing a regime of heavy-handed government regulation. Specifically, the ILECs call on the Commission to:

- impose carrier access charges on ESPs/ISPs;
- limit the ability of Competitive Local Exchange Carriers ("CLECs") to serve ESPs/ISPs;
- permit above-cost pricing of new ILEC services;
- regulate protocol conversion; and
- regulate Internet telephony.

The Commission should decline to do so.

The ILECs do not seriously argue that the growth of information services is causing congestion in most of their end-offices. Rather, the ILEC studies have focused almost exclusively on those end-offices that serve one or more relatively large ESPs/ISPs. Yet, these studies do not even demonstrate that the growth of the Internet and other information services is causing significant congestion problems in those end-offices that serve large ESPs/ISPs. The

fact is that no publicly disclosed study has concluded that the growth of on-line services is causing widespread network congestion. Indeed, the available evidence is to the contrary.

The Coalition has demonstrated that the incremental revenues that the ILECs generate from ESPs/ISPs and their customers more than offset any additional costs that the ILECs have incurred to accommodate the growth of data traffic. The ILECs attempt to refute these conclusions by advancing three propositions. They assert that: (1) charges paid by ESPs/ISPs compensate the ILECs for only a fraction of the costs of the lines that they use; (2) the tremendous growth in residential second lines during the last few years has not been caused by the growth of consumer demand for access to information services; and (3) revenue from second lines used to access information services does not cover the cost of the lines. Each of these assertions is not only inconsistent with available evidence, but defies common sense.

The Commission should reject calls to require ESPs/ISPs to pay federal access charges. The Commission's current policy, under which ESPs/ISPs use the same state-tariffed access arrangements as other business customers, is legally sound. Contrary to the assertion of some of the ILECs, the Commission does not need to impose federal access charges on ESPs/ISPs in order to provide them with an "incentive" to migrate their traffic from the circuit-switched network to more appropriate access arrangements. ESPs/ISPs know that their customers want high-speed access to the Internet and other on-line services; they have strong competitive incentives to obtain the data communications services necessary to satisfy this demand. Indeed, where alternatives are available, ESPs/ISPs have demonstrated that they will use appropriate technology -- even if they must pay higher prices.

The Commission also should reject the ILECs' other ill-conceived proposals. Permitting the ILECs further pricing flexibility would only allow them to reap supra-competitive profits on existing voice-oriented services, with no guarantee that these revenues would be used to deploy the broadband services needed by consumers to make effective use of the Internet and other information services. Similarly, limiting the ability of CLECs to obtain reciprocal compensation plainly would make it more difficult for them to meet the needs of ESPs/ISPs, thereby slowing "the deployment of services and facilities [that will] allow more efficient transport of data traffic to and from end users." And allowing the ILECs to provide protocol conversion as part of their tariffed service plainly would be inconsistent with the deregulatory policies embodied in the Telecommunications Act. Finally, the Commission should not impose carrier access charges -- or any other form of common carrier regulation -- on providers of Internet telephony.

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In the Matter of Usage of the Public Switched Network by Information Service and Internet Access Providers	CC Docket No. 96-263

Reply Comments of the Internet Access Coalition

The Internet Access Coalition hereby replies to the comments filed in response to the Commission's Notice of Inquiry.[1] The Coalition consists of associations[2] and companies[3] that represent all segments -- hardware, software, and services -- of the Information Technology industry. It is dedicated to maintaining the affordability of consumer access to the

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1 See Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Inquiry, CC Docket No. 96-263, ¶¶ 311-18 (rel. Dec. 24, 1996) ("Notice").

2 Internet Access Coalition member associations include the American Electronics Association, the Business Software Alliance, the Consumer Electronics Manufacturers Association, the Information Technology Association of America, the Information Technology Industry Council, the Internet Service Providers and Users Association, the Software Publishers Association, and the Voice on the Net Coalition. Collectively, these associations represent more than 12,000 member companies.

3 Internet Access Coalition member companies include America Online Incorporated, Apple Computer, Inc., Compaq Computer Corporation, CompuServe Incorporated, Digital Equipment Corporation, EarthLink Network, Inc., Eastman Kodak Company, GE Information Services, IBM Corporation, Intel Corporation, Microsoft Corporation, Netscape Communications Corporation, Novell, Inc., Oracle Corporation, and Sun Microsystems, Inc.

Internet and other information services via analog, circuit-switched telephone lines, and accelerating the deployment of efficient, affordable, and reliable broadband data communications services.

INTRODUCTION

The comments filed in response to the Commission's Notice of Inquiry present two starkly different visions of the future of the Nation's communications infrastructure. A significant portion of the commenters -- including representatives of the Information Technology industry, some interexchange carriers, and a number of consumer groups -- envision a highly competitive communications market, in which multiple providers will offer a wide range of broadband data communications services that can be used to access the vast resources of the Internet and other information services. These parties have advanced concrete proposals designed to foster the necessary competition.

In contrast, a number of commenters -- consisting primarily of some, but not all, of the incumbent local exchange carriers ("ILECs") -- perceive the growth of the Internet and other information services as a "problem" in need of a heavy-handed regulatory "solution." These parties recycle unfounded and discredited allegations about "network congestion" and "uncompensated costs," and ask the Commission to impose carrier access charges on Internet and other enhanced service providers ("ESPs/ISPs").

The ILECs' failure to advance an affirmative plan for the deployment of new technologies necessary to accommodate the growth of data traffic is not surprising. After years of government regulation, which has insulated them from the risks of a competitive market while

ensuring them a high rate of return, the ILECs are unaccustomed to meeting rapidly changing consumer demands. The Commission must recognize that no set of regulatory "incentives" can encourage the incumbent carriers to deploy the broadband data communications services that users need to access the Internet and other information services. Rather, as experience in the highly competitive information services market demonstrates, a competitive market is the only means to ensure that users will have access to the efficient and affordable services that they demand. Therefore, the Commission must reform its regulatory regime to facilitate the growth of a competitive market for data communications services.

I. THE COMMISSION SHOULD ADOPT THE INFORMATION TECHNOLOGY INDUSTRY'S PROPOSALS TO FACILITATE THE DEPLOYMENT OF "THE BROADBAND DATA NETWORKS OF THE FUTURE"

A. The IT Industry Has Provided a Forward-Looking, Pro-Competitive Vision

The Information Technology Industry and its customers view the growth of the Internet and other information services as a historic opportunity. The Internet User Coalition, for example, observes that the Internet is a "potentially limitless source of information and entertainment . . . a powerful tool for education and research, and . . . an efficient platform for economic activities."[4] However, the commenters also recognize that -- for virtually all

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[4] Comments of the Internet User Coalition at 5 ("Internet User Coalition Comments"); Comments of NetAction, Utilities Consumer Action Network, Computer Professionals for Social Responsibility and Community Technology Centers' Network at 1 ("Internet Consumer Parties Comments") ("The Internet has not only spawned an entire industry in information services and computing, but has also been a catalyst for major social change in how people communicate with one another, educate themselves, interact with (continued...)

consumers -- the only currently available means to access the Internet and other information services is over the public switched telephone network ("PSTN"). Because the PSTN was designed for voice traffic, they note, access to the Internet and other data-oriented information services is limited to a maximum rate of 56 kilobits per second -- with most users continuing to access these services at far slower speeds.[5]

In its comments, the Internet Access Coalition articulated a critical goal for the future: Accessing the Internet and other information services should be at least as fast, easy, and affordable as making a local telephone call.[6] The Coalition observed that only competition can create the incentives necessary to achieve this goal. For this reason, the Coalition concluded that the Commission should adopt policies designed to make the data communications market as competitive as the markets for personal computers and information services.[7]

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[4](...continued)
government institutions and spend social time."); Comments of the United States Internet Providers Association at 4 ("USIPA Comments") ("Internet related services are quickly becoming a desired medium for many businesses and a large portion of the mass consumer market, changing the way we live, interact and do business.").

[5] See Comments of the Internet Access Coalition at 2-3 ("Coalition Comments"); see also id. at 5-7 (describing the inefficiencies of using the PSTN to access the Internet and other information services).

[6] See Coalition Comments at i; see also Comments of CompuServe Incorporated and Prodigy Services Corporation at 5 ("CompuServe/Prodigy Comments") ("[T]he overriding goal" of this proceeding "should be to take actions which promote the development of an advanced national information infrastructure that is characterized by the widespread deployment of high-speed, high bandwidth transmission facilities which are available on an operationally reliable basis at reasonable prices."); Internet User Coalition Comments at 5 (The Commission should seek "to ensure that every American can receive affordable access to the Internet.").

[7] See Coalition Comments at i, 2.

A significant number of commenters reached this same conclusion.[8] MCI, for example, observed that "[o]nly competition in the local exchange market can ensure that the most efficient technologies are deployed and offered at prices attractive to ISPs."[9] America Online likewise emphasized "the overarching need for increased facilities-based competition, especially in the 'last mile' to the home."[10] And the United States Internet Providers Association stated simply that "[t]he solution to the development of broadband networks in the United States can be summed up in one word -- competition."[11]

Like the Coalition, many commenters recognized that competition will spur the deployment of the facilities and services necessary to provide consumers with affordable broadband access to the Internet and other information services.[12] The competitive deployment of xDSL technology, for example, could transform today's local loops into high-speed conduits that will provide consumers instant access to the vast resources of the Internet and other information services.[13] Competition also could eliminate ILEC central office bottlenecks by

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8 See, e.g., Internet User Coalition Comments at 5 ("The Commission's goal in framing Internet policies should be to ensure that every American can receive affordable access to the Internet, and that competition for provision of Internet service flourishes.").

9 Comments of MCI Communications Corporation at 10 ("MCI Comments").

10 Comments of America Online, Inc. at 5 ("AOL Comments").

11 USIPA Comments at 20.

12 See Coalition Comments at 17-22, 31-34.

13 See MCI Comments at 11 ("[T]he most promising option for providing high-bandwidth Internet access is the Digital Subscriber Line (XDSL) family of technologies, which use sophisticated digital signal processing to enable high bit rate transmission over existing (continued...)

allowing competitive providers to aggregate calls from multiple ILEC central office and deliver them to multiple ESPs/ISPs.[14] Finally, a competitive market will spur the deployment of high-speed packet networks that can speed delivery of information from ILEC central offices and other data aggregation points to the premises of multiple ESPs/ISPs.

B. The IT Industry Has Advanced Feasible Proposals to Foster Competition

In its comments, the Internet Access Coalition proposed a pro-competitive agenda for regulatory reform designed to foster the competition necessary to spur the deployment of "data friendly" communications services. Many commenters advanced proposals that are similar to the Coalition's five-point plan to allow new entrants to enter the wireline data transport market. Under this plan, the Commission would:

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[13](...continued)
copper loops."); CompuServe/Prodigy Comments at 14 ("At this time, the various xDSL technologies seem to be the most likely fairly near-term transmission means for taking advantage of the fast-packet services in order to get higher speed, higher bandwidth to the end user in his or her home or business."); AOL Comments at 19 ("Because xDSL technology relies on existing copper loops, the deployment of the technology holds promise as an efficient access option.").

[14] See USIPA Comments at 10.

- unbundle the Part 69 access elements from each other;[15]
- disaggregate the loop access element into sub-elements;[16]
- require equal access and interconnection for competitive data service providers;[17]
- mandate collocation of all forms of transmission, switching and information service equipment;[18] and
- require cost-based pricing for access elements and collocation.[19]

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15 See Coalition Comments at 42-45; see also Comments of WorldCom at 15 "(WorldCom Comments") ("Any federal access arrangement that is created for data services must be unbundled to the maximum extent possible . . .").

16 See Coalition Comments at 45-47; see also AOL Comments at 25 ("[A]s the need arises, the FCC should require additional unbundling, including . . . sub-loop elements."); WorldCom Comments at 23 ("One further . . . step the Commission could take to encourage network efficiencies is to require the ILECs to provide sub-loop unbundling . . . . Sub-loop unbundling of the feeder, distribution, remote switches, and line concentrators is technically feasible, and therefore is required by the 1996 Act . . . .").

17 See Coalition Comments at 47-49; see also USIPA Comments at 20 ("[T]he Commission should work to ensure that competitors get access to the end users connected to ILEC networks at reasonable prices and in a non-discriminatory fashion."); AOL Comments at 26 ("[W]ith respect to the proposals of some ILECs to deploy hardware and/or software that removes data traffic from the network before it goes to the ILEC's switch, the FCC should ensure equal and non-discriminatory access to such functionalities . . . .").

18 See Coalition Comments at 49-52; see also CompuServe/Prodigy Comments at 11 ("ILECs would be required to offer independent ESPs physical collocation of ESP equipment in the central office at cost-based rates, or absent the availability of physical collocation, then virtual collocation which is at least equivalent to physical location in an economic and operational sense."); Comments of the Commercial Internet eXchange Association at 17 ("CIX Comments") ("[P]hysical collocation for ISPs would improve the range of possible solutions for market-driven high bandwidth to the customer.").

19 See Coalition Comments at 52-54; see also CompuServe/Prodigy Comments at 12 ("Until

(continued...)

A number of commenters also joined the Coalition in recognizing that -- although they are not yet significant competitive alternatives -- cable, terrestrial wireless, and satellite-based providers ultimately may be able to offer additional means for users to access on-line services.[20] These commenters proposed that the Commission adopt policies to foster deployment of these alternative infrastructures.[21]

Finally, several commenters emphasized the need for the Commission to allow the highly competitive enhanced service market to continue to grow, unfettered by carrier access charges or other forms of common carrier regulation. As the General Services Administration and the Department of Defense observed "information service providers should not be considered

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[19](...continued)
effective competition develops in the local exchange marketplace, the Commission will need to exercise active regulatory oversight over the LECs to ensure cost-based rates, including a requirement that the ILECs employ a forward-looking economic costing methodology such as Total Element Long-Run Incremental Cost ('TELRIC') in establishing prices for new services and capabilities to be used by ESPs.").

[20] See Coalition Comments at 31; Comments of the National Cable Television Association at 6-8 ("[C]able's significantly greater bandwidth enables customers of a cable system's Internet access service to download information significantly quicker than users of the PSTN."); MCI Comments at 11 ("Among the options that are under consideration for the last mile are digital subscriber line technologies, cable modems, new wireline technologies such as hybrid fiber-coax, and a variety of wireless technologies."); CIX Comments at 10 ("Competitors are beginning to emerge in today's market with modern, digital local access alternatives to the incumbent LEC . . . . Examples of this emerging competition abound: the multitude of licensed wireless new entrants . . . unlicensed wireless access providers . . . the cable television operators . . . and potential entrants from the new wireless services . . . .").

[21] See AOL Comments at 33 ("[T]he challenge for policymakers is to encourage the deployment . . . of these alternatives, especially given the sometimes high costs involved."); Internet Consumer Parties Comments at 12 ("Ultimately, the goal of this Commission should be to give consumers a choice of methods to access their data communications services.").

as common carriers for any regulatory purpose, including interstate access charges."[22] Many commenters also joined the Coalition in recommending against establishing "sub-categories" of enhanced services that could subject certain ESPs/ISPs to carrier access charges or other common carrier regulation.[23]

II. THE COMMISSION SHOULD REJECT PROPOSALS THAT WOULD DEPRIVE CONSUMERS OF ACCESS TO AFFORDABLE, BROADBAND DATA COMMUNICATIONS SERVICES

Unlike the IT industry, the ILECs do not see the growth of the Internet and other information services as an opportunity. Rather, they view the increasing popularity of these services as a "problem" that requires a regulatory "solution."[24] A number of the ILECs recycle the discredited allegation that the growth of the Internet is imposing intolerable levels of congestion on the PSTN, and that ESPs/ISPs are not compensating them for the costs that they impose. In essence, as CIX perceptively notes, the ILECs complain that they "have too much

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22 Comments of the General Services Administration and the U.S. Department of Defense on Notice of Inquiry at i ("GSA/DOD Comments"); see Internet User Coalition Comments at 18; Internet Consumer Parties Comments at 5; CIX Comments at 19; CompuServe/Prodigy Comments at 7.

23 See Coalition Comments at 57-59; WorldCom Comments at 16-17 (The "Commission should not try to discern and police more and different regulatory distinctions between different types of ESPs, or between ESPs and other users of the local network."); AOL Comments at 14 ("[T]he Commission should not disturb the existing distinction between basic and enhanced services. Nor should the Commission establish new distinctions between types of enhanced service providers.").

24 See, e.g., Comments of the United States Telephone Association at 13 ("USTA Comments") (The growing sales of second lines is a "symptom" of the "problem" created by the growth of the Internet); Comments of GTE at 25 ("GTE Comments") (Subscribers who purchase a second line to access the Internet lack the "incentive to limit their [use] of Internet services.").

business for the prices that they charge."[25] The ILECs ask the Commission to "remedy" this situation by imposing a regime of heavy-handed government regulation. Specifically, the ILECs call on the Commission to:

- impose carrier access charges on ESPs/ISPs;[26]
- limit the ability of Competitive Local Exchange Carriers ("CLECs") to serve ESPs/ISPs;[27]
- permit above-cost pricing of new ILEC services;[28]
- regulate protocol conversion;[29] and
- regulate Internet telephony.[30]

The regulatory regime proposed by the ILECs would not lead to the deployment of the new services necessary to ensure that consumers will have rapid, affordable access to the Internet and other information services. Rather, adoption of these proposals would artificially

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25 CIX Comments at 11.

26 See Comments by Pacific Telesis Group at 33-35 ("Pacific Comments"); Joint Comments of Bell Atlantic and NYNEX at 12 ("Bell Atlantic/NYNEX Comments"); Comments of Southwestern Bell Telephone Company at 4 ("SWBT Comments"); Comments of U S West, Inc. at 26 ("U S West Comments"); USTA Comments at 8; GTE Comments at 31.

27 See U S West Comments at 28; Pacific Comments at 22; GTE Comments at 33; Comments of the Southern New England Telephone Company at 4, 7 ("SNET Comments").

28 See SWBT Comments at 3, 6; Pacific Comments at 7.

29 See Comments of BellSouth at 6 ("BellSouth Comments").

30 See SWBT Comments at 13; see also Comments of America's Carriers Telecommunication Association at 9 ("ACTA Comments"); Comments of AT&T at 23-25 ("AT&T Comments"); Comments of the Telecommunications Resellers Association at 15 ("TRA Comments").

inhibit demand for information services, while impeding competition in the data communications market.

A. The Commission Should Not be Misled by the ILECs' Unfounded Allegations Regarding Network Congestion and Costs

In their comments, the ILECs assert that the growth of the Internet and other information services has resulted in significant network congestion. They further claim that the costs that they have incurred exceed the additional revenues that they have generated from the growth of data traffic. These contentions were thoroughly addressed -- and thoroughly refuted -- in the study prepared for the Coalition by Economics and Technology Incorporated (the "ETI Study"). Although the ETI Study was filed by the Coalition as part of its original comments in the Access Charge docket, most of the ILECs chose not to challenge ETI's conclusions in their reply comments. Their effort to do so in the present proceeding is as unpersuasive as it is untimely. Therefore, rather than providing detailed refutations of each study, the Coalition will address only the most significant inaccuracies in the current ILEC submissions.

1. There is no evidence of significant network congestion

Today, nearly every ILEC end-office in the country serves customers that seek to access the Internet and other information services. Yet, the ILECs do not seriously argue that

the growth of information services is causing congestion in most of these offices.[31] Rather, the ILEC studies have focused almost exclusively on those end-offices that serve one or more relatively large Internet and other information service providers. These studies plainly do not demonstrate that the PSTN as a whole is experiencing a congestion problem.

The ILECs have not even been able to demonstrate that the growth of the Internet and other information services is causing significant congestion problems in those end-offices that serve large ESPs/ISPs. The best that they can do is to observe that Internet-related traffic has created a "second busy hour" in these offices.[32] Rather than being a problem, however, this is a positive development. The PSTN is designed to accommodate the peak traffic level that occurs during the busy hour. For voice calls, this typically occurs during the traditional business day. Throughout the remainder of the day, unneeded network capacity stands idle. If the growth of the Internet is causing an upsurge in traffic during the evening hours, it means that the existing network capacity is being used more efficiently.

The ILECs also repeat their assertion that, because Internet and other information service users make "longer calls" than voice customers, Internet traffic is causing higher usage

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31 Indeed, the ILECs have repeatedly conceded that the use of the Internet and other information services is not likely to result in congestion at originating end-offices. See, e.g., A. Atai & J. Gordon, "Impacts of Internet Traffic on LEC Networks and Switching Systems," at 3 (1996) ("Since Internet traffic from a wide geographic area is typically funneled into the terminating switch, acute congestion is most likely to occur first at the terminating switch."); Statement of Lee Bauman, Pacific Telesis, FCC Bandwidth Forum, Official Transcript at 130 (Feb. 23, 1997) (Any "congestion issues are located at the offices to which ESPs interconnect.").

32 Bell Atlantic/NYNEX Comments, Attachment B, at 4; see U S West Comments, Exhibit A, at 7; Pacific Comments, Exhibit A, at 12. The "busy hour" is the period during which the traffic load in a given central office is at its peak.

per line than voice traffic. As the ETI Study demonstrated, this assertion is incorrect. To the contrary, as a group these users have below average network utilization patterns.[33] Even if a small minority of on-line subscribers do make significantly longer-than-average calls, however, this is of little consequence. Because such calls are typically made during evening hours, they generally use network capacity that otherwise would have stood idle.

Unable to demonstrate the existence of Internet-related congestion on the originating or terminating end of the network, Bell Atlantic and NYNEX attempt to argue that ESPs/ISPs are creating congestion in the middle of the network. The carriers assert that some ESPs/ISPs have not deployed an adequate number of modems at their premises and that, as a result, their subscribers have to "redial the ISP access number repeatedly until they get a connection." This, the carriers claim, wastefully "ties up" resources across the network.[34] The Commission should not be swayed by this claim.

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33 See Economics and Technology, Inc., "The Effect of Internet Use on the Nation's Telephone Network," at 29 (Jan. 22, 1997) ("ETI Study"). The Coalition has confirmed this conclusion by conducting an analysis of the Dial Equipment Minutes ("DEMs") data for 1990 to 1995 filed with the Commission. DEMs data measures the number of minutes that originating and terminating switching equipment located in each ILEC end-office actually is in use. If users of the Internet and other information services were making disproportionate use of the network, this data would reveal an increase in the average number of minutes of use per day that each loop is being used. In fact, this data reveals that, between 1990 and 1995 -- the period in which use of the Internet and other on-line services has increased significantly -- the total number of loops increased, but that the average number of minutes per day that each loop was used remained almost constant. See Line Usage Per Pay Dial Equipment Minutes Per Local Loop, FCC Common Carrier Bureau (April 18, 1997), www.fcc.gov/Common_carrier/Reports/FCC-State_Link/IAD/trend1.pdf. For some carriers (including Bell Atlantic and NYNEX), the average number of minutes of use per loop actually decreased. The average minutes of use per loop for each of the Bell Operating Companies is attached as an Appendix.

34 Bell Atlantic/NYNEX Study at 4.

In its comments, the Coalition explained that, in order to respond to acute competitive forces, ESPs/ISPs have been expending significant sums to obtain additional circuits and deploy additional modems.[35] As a result, the instances in which their customers receive busy signals has decreased and should continue to do so. Moreover, as the Coalition also explained, in those cases in which an ESP/ISP cannot accommodate all of its customers' calls, common channel signalling (such as Signalling System 7) informs the switch at the customer's end-office that the circuits at the terminating end are busy. This causes the customer to receive a busy signal from the originating end-office switch. Once this has occurred, no network resources are deployed between the originating and terminating end-office.

The ILECs also claim that information service traffic unduly congests their inter-office transport facilities.[36] This assertion is without merit. As GTE concedes, deployment of additional trunking facilities is unnecessary when ISP traffic peaks do not coincide with, or exceed the size of, voice traffic peaks.[37] The fact that, in some isolated instances, the ILECs have deployed additional trunks to accommodate increasing data traffic is not evidence of a pervasive congestion "problem." Rather, it is evidence that the ILECs are fulfilling their

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35 The difference between the way the ILECs and ESPs/ISPs respond to increased business is revealing. The ILECs view the need to expend revenue to accommodate growing data traffic as a problem that requires a regulatory solution. In contrast, competitive businesses -- such as those in the information services industry -- understand that they often must incur costs to meet the changing needs of their customers.

36 See SNET Comments at 15-16.

37 See GTE Comments at 16-17.

obligation as managers of the PSTN.[38] In any case, as the Coalition has previously demonstrated, whatever isolated inter-office congestion may exist can be alleviated through efficient traffic rebalancing and network re-engineering.[39] ESPs/ISPs have indicated their willingness to work with the ILECs in order to ensure that traffic continues to flow smoothly through the network.[40]

Bell Atlantic and NYNEX make one final attempt to find a network congestion problem somewhere. The carriers assert that "congestion in the Internet backbone . . . coupled with the multimedia nature of the Internet, contribute to network congestion."[41] They go on to explain that "high-bitrate features" found on the Internet -- such as World Wide Web pages containing audio and video features -- "take a considerable time to download through 28.8 kbps or lower speed modems over narrowband, analog lines. With so much data flowing over the Internet, the backbone itself also slows the process."[42]

The carriers must be confused. The Internet backbone is not the cause of congestion: it consists of extremely high capacity lines that can move data at speeds of up to

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38 See WorldCom Comments at 20.

39 See ETI Study at 9-10.

40 For example, several major information service providers are now actively participating in the FCC's Network Reliability and Interoperability Council.

41 Bell Atlantic/NYNEX Comments, Attachment B, at 5.

42 Id.

622 million bits per second.[43] In contrast, the ILECs continue to provide "narrowband analog lines" that allow consumers -- using the fastest commercially available modem -- to access information at the rate of 56 thousand bits per second. There is no way in which information service providers can be held responsible for congestion that results from the ILECs' failure to deploy broadband technology, such as ISDN or xDSL, that would dramatically reduce the time it takes for consumers to access multimedia applications.

In the end, the ILECs' biased studies and over-blown rhetoric cannot substitute for empirical evidence. The fact is that no publicly disclosed study has concluded that the growth of the Internet and other on-line services is causing widespread network congestion. Indeed, the available evidence is to the contrary.[44] For example, the Network Reliability and Interoperability Council has found that Internet use has not caused any reportable network

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43 Far higher speeds are on likely in the near-term. For example, by 1998, MCI anticipates upgrading its Internet backbone to 2.5 billion bits per second. See Kevin Werbach, Office of Plans and Policy, Federal Communications Commission, "Digital Tornado: The Internet and Telecommunications Policy," at 24 n.25 (Mar. 1997) ("OPP Working Paper").

44 Other than the ILECs, virtually none of the parties that filed comments in this proceeding suggest that the growth of the Internet has caused significant network congestion. To the contrary, many commenters reached the same conclusion as the Coalition: ILEC claims about network are "grossly exaggerated." AT&T Comments at 5; see GSA/DOD Comments at 9-10 ("The Bell Operating Companies ('BOCs') have attempted to convince regulators that on-line services threaten the integrity of the public switched telephone network. However, . . . these claims are unfounded. Data communications traffic poses no general threat to network integrity at the present time."). Any isolated congestion problems, they also recognize, "can be corrected by the ILECs themselves." WorldCom Comments at 20; see AOL Comments at 20-21; Comments of the Association of Online Professionals at 6; Comments of Northern Telecom at 10.

outages.[45] Similarly, an exhaustive assessment of traffic patterns in the Atlanta metropolitan area, conducted by Bellcore, found that "there was no distinct correlation between traffic of Internet service providers in Atlanta metro network and incidence of blocking with their traffic."[46] The Coalition can only assume that, if other studies had provided evidence of Internet-related network congestion, the ILECs would have released them.[47]

2. The growth of on-line services has generated significant net revenue for the ILECs

USTA makes a startling assertion. The Commission's current regulations, we are informed, require the ILECs to charge "a zero price for data transmission."[48] This, of course, is entirely untrue. As MCI explains, ILECs that provide data transmission services obtain revenue from two sources:

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45 See "Hundt Asks Network Reliability and Interoperability Council to Monitor Impact of Internet Growth on Public Networks," FCC News Release, Nov. 1, 1996.

46 Testimony of Daryl Johnson, BellSouth Infrastructure Planner, before the Florida Public Service Commission (1997) (transcribed from official recording). After expending considerable resources and collecting voluminous amounts of data, BellSouth sought to explain away the results by claiming that the Atlanta Metro is not typical because it has large flat-rate calling areas and, as a result of the 1996 Olympics, a well-developed infrastructure. The more convincing explanation for the lack of congestion, however, is contained in the Bellcore study -- which found that the traffic volume during the evening "Internet busy hour" was lower than the traffic volume during the traditional "business busy hour."

47 The 1996 Bellcore study by Drs. Atai and Gordon, which was filed with the Commission last year, was a theoretical analysis. It provided no empirical evidence of network congestion.

48 USTA Comments, Affidavit of J. Gregory Sidak & Daniel F. Spulber, American Enterprise Institute ("AEI Affidavit"), at 41.

> First, ESPs . . . . are paying like other business users through the monthly purchase of business lines. As the popularity of on-line services has increased, so have the revenues generated through the purchase of local business lines. Second, the growth in popularity of ESPs has been generating significant new revenues for the [ILECs] from second lines which have very little cost associated with them, and from their own Internet access services."[49]

"[T]here is significant evidence," Teleport adds, "that the current rates paid by ISPs and Internet subscribers adequately compensate incumbent local exchange carriers ("ILECs") for network usage."[50] Therefore, the General Services Administration and the Department of Defense conclude, "[t]he LECs do not require any additional compensation from information service providers or their customers."[51]

The ILECs attempt to refute these conclusions by advancing three propositions -- each of which is not only inconsistent with available evidence, but defies common sense. First, the ILECs claim that the charges paid by ESPs/ISPs compensate the ILECs for only a

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49 MCI Comments at 3; see USIPA Comments at 14, 15 ("Adding up all the recurring monthly charges for these services, and the additional installation charges, many ISPs now pay millions of dollars per month for ILEC services . . . . In addition, ILECs obtain revenues from the sale of a substantial number of second lines to residential customers who desire dedicated lines for their computer modems."); Comments of Juno Online Services at 11 ("LECs receive significant direct revenue from ESPs for service. They also receive significant indirect revenue as a result of the growth of the Internet and other information services."); WorldCom Comments at 21 ("The ILECs already receive considerable ESP revenues to support the building and maintenance of increased switch capacity.").

50 Comments of Teleport Communications Group at 4 ("Teleport Comments"); see Internet User Coalition Comments at 2 ("The nation's telephone companies are fully compensated for Internet usage under the current structure.").

51 GSA/DOD Comments at 16-17.