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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Deployment of Wireline Services	)	CC Docket No. 98-147
Offering Advanced Telecommunications	)	
Capability	)	

COMMENTS OF PSINET INC.

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Introduction and Summary

PSINet Inc., by its attorneys, files these comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding.[1] PSINet was the first commercial Internet service company, and continues to be a leading provider of Internet services and Internet access in the United States and abroad. Indeed, it is the leading independent Internet backbone provider in the U.S.,[2] as it is not controlled by any other provider or telecommunications carrier.

PSINet's network today includes more than 230 points of presence ("PoPs") in the U.S. and more than 400 PoPs worldwide, each designed and built specifically to handle Internet-based traffic from customers that employ a range of access methods. PSINet engineers and executives have developed many of the most significant technical and product innovations in the Internet's

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1 "Deployment of Wireline Services Offering Advanced Telecommunications Capability," Memorandum Opinion and Order, and Notice of Proposed Rulemaking, CC Dkt. Nos. 98-147, et al., FCC 98-188 (rel. Aug. 7, 1998) ("MO&O" and "NPRM").

2 Ten percent of the world's Internet traffic is carried across PSINet's network.

history, and are at the forefront of broadband Internet backbone investment and development. For these reasons, PSINet has a major stake in the deployment of high-quality, high-speed broadband telecommunications capability throughout all levels of the network.

PSINet agrees with the Commission's goal "to ensure that all entities seeking to offer advanced services have adequate access to collocation and loops, which is critical to promote competition in the market place for advanced services."[3] The Commission can greatly facilitate end-user access to advanced services by allowing service providers to deploy Internet-based services using the ILEC unbundled local loop. As ISPs are able to control the physical layer connection to end-users, ISPs and consumers can create and customize new, innovative, and creative Internet-based products and services. In this way, the range and quality of Internet-based offered to end-users is not constrained by any higher "layering" decisions made by the incumbent local exchange carrier ("ILEC") for its own retail services. To expand the proliferation of Internet-based services to end-users, the Commission should (a) clarify and strengthen the national collocation and unbundling rules, and (b) establish Internet Service Provider ("ISP") rights to access the unbundled local loop.

In addition, the Commission should not relieve regional Bell operating companies ("RBOCs") of their interLATA obligations by modifying LATA boundaries to meet alleged Internet backbone capacity issues in certain areas. Congress provided for relief from Section 271 restrictions, including Internet restrictions, that is tied to compliance with the "competitive checklist." LATA modifications would undermine that statutory incentive. Moreover, in

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[3] NPRM, ¶ 84.

PSINet's view, today's competitive Internet market offers appropriate bandwidth solutions, and meets new demand appropriately without the need for regulatory intrusion.

Discussion

I. PSINet Can Deploy Better Internet-Based Services To Consumers Using Access to Local Loop

Many ILECs take the view that their asymmetric digital subscriber line ("ADSL") offerings deliver high-speed Internet services to the end-user.[4] This view greatly underestimates the value of Internet-based services and the greater potential range of services that ISPs could deliver to end-users via xDSL technology and the ILEC access lines. For the most part, the ILECs' xDSL service provides consumers with a choice of one out of three classes of ADSL,[5] without any actual guarantee of speed levels.[6] The ILEC ADSL offering typically provides only one connection method for end-users to access their ISP via the ILEC-owned regional ATM or Frame Relay network. This ILEC approach obviously resolves three issues of concern to ILECs: (a) deployment of local data service in the residential and business markets prior to widespread entry of competitive data providers; (b) deployment of a local data service that avoids

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4 For example, Bell South recently explained that its "ADSL service enables network service providers such as ISPs to incorporate this high-speed data connection into a wide range of data and information service applications that they offer directly to end-users." "Direct Case of BellSouth Telecommunications, Inc.," CC Dkt. No. 98-161 at i (filed Sept. 11, 1998).

5 For example, Bell Atlantic's ADSL "Infospeed" offering provides for three service options: Infospeed 640 K (640 Kbps downstream, 90 Kbps upstream); Infospeed 1.6M (1.6 Mbps downstream, 90 Kbps upstream); Infospeed 7.1M (7.1 Mbps downstream, 680 Kbps upstream).

6 See Petition of America OnLine Inc. to Suspend and Investigate the BellSouth Telecommunications Inc. ADSL Service Tariff, at 7-8 (filed Aug. 25, 1998).

"cannabalization" of the ILECs' high-profit T1 and T3 lines; and (c) removal of Internet traffic on the public switched telephone network ("PSTN").

However, the ILEC ADSL approach significantly diminishes the range of Internet-based services that ISPs like PSINet could offer and tends to make Internet-based services more expensive than necessary for the end-user. The ILEC approach also forces the ISP to accept the ILEC's implementation of technical and geographic assumptions that lead to a loss of efficiency and additional cost for Internet-based services that do not fit in conform with the ILECs' assumptions. Moreover, the ILEC's assumptions can restrict the ISP's technical ability to deliver certain services to its customers.

A. Range of Services

An ISP distinguishes itself from competitors by the range and quality of the Internet services that it offers. The manner in which the ISP's network is engineered to support Internet applications is among the most important ways in which the ISP can differentiate itself.[7]

Even if an ISP can support a particular Internet application, the performance of the application is what drives customer demand: customers care about effective application performance. Different factors drive the performance of Internet applications than drive other types of network systems. To fully optimize a network for Internet application performance is nearly impossible if that network must share resources with multiple types of traffic, as is the case under ILEC ADSL offerings. Moreover, it is nearly impossible to engineer end-to-end application performance on a competitive basis if the underlying resources are shared among multiple, competing providers, as is the case under ILEC ADSL offerings. Consequently,

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[7] See <http://www.psinet.com/internet/interframe>.

PSINet has always built its network on dedicated, rather than shared, facilities because shared networks cannot be optimized to handle the special needs of Internet applications. To control and differentiate Internet application performance requires end-to-end control of the customer's experience.

B. The InterFrame Service as an Example

In addition to handling the special needs for Internet applications, ISPs can also offer a range of services not offered by most ILECs. One of these services is PSINet's InterFrame, which allows customers "Managed Application Bandwidth." This feature allows corporate customers to manage a their physical Internet access to meet the needs of their organization. For example, corporate management may impose limits on resources consumed for non-essential applications (such as newsgroups or online bulletin boards) that require increased bandwidth to transfer large amounts of data and choose to reserve resources for continuous access to critical applications like email, a lower bandwidth application. Thus, customers can transfer extremely large data files when needed at a reduced cost.

InterFrame also provides customers with increased application performance because PSINet has optimized the network for the InterFrame application. In contrast, PSINet also offers its InterMAN service, which integrates global Internet access with high-capacity Metropolitan Area Networks.[8] InterMAN customers access the PSINet network through public switched ILEC data clouds. Customers of the InterMAN service often migrate to the InterFrame service due to their perception of relatively insufficient application performance of InterMAN due to the underlying ILEC service that has not been optimized for the application. These features -- the

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[8] See <http://www.psinet.com/internet/interman>.

managed application bandwidth, cost reduction, and optimized performance -- are not possible unless the ISP has access to and controls a dedicated physical path to the customer premise.

To retain the advantages that the InterFrame service provides once data reaches the PSINet network, customers must have an increased bandwidth to send the data to the PSINet network in the first place. Currently, the InterFrame service appeals to companies that can afford the cost of external dedicated access to PSINet (i.e., an ILEC-owned T-1 or fractional T-1 line) to retain the increased bandwidth access to PSINet. However, using xDSL and a conditioned copper loop, the InterFrame service could be an extremely attractive offering to a broader range of customers, including medium and small businesses, that could not afford a T-1 line to connect to the PSINet network but would still like to take advantage of the service that InterFrame provides.

C. ILEC ADSL Technical, Cost, and Geographic Restrictions for ISPs

For several reasons, PSINet cannot deliver this Internet-based service to a broader range of customers via the ILECs' current ADSL. First, because ADSL is asymmetric (i.e., reduced bandwidth for transmission of data upstream in exchange for a larger downstream bandwidth), it minimizes the effectiveness of a service, such as PSINet's InterFrame, which requires large amounts of bandwidth both upstream and downstream. More significantly, asymmetric services are not appropriate for a broader range of Internet services that customers demand, such as web-hosting for use by the public or for mobile workforce applications. However, other xDSL technologies that could be deployed, such as HDSL or VDSL, provide equally large bandwidth both upstream and downstream to allow customers to take full advantage of the InterFrame service.

Second, the ILEC's current ADSL bundles the local loop (and DSL electronics) with an ATM or Frame Relay service. Aggregating ISP traffic together onto a shared circuit-based

medium, such as ATM or Frame Relay, reduces the functionality of the Internet services that can be provided to end-users while increasing the end-user's cost. Internet applications are designed to run across dedicated lines that do not impose the same constraints as shared lines for the ISP and the end-user. When ISP lines are shared with other services, the basic "layers" that the ILEC implements for its services interfere with the ISP services.[9]

Finally, the geographic scope of the ILEC offerings impedes the ability of ISPs to offer a variety of services in two ways. First, a single ILEC makes a uniform network deployment, layering, and pricing decision for advanced telecommunications capability that is implemented across several states. Currently, access requires the ISP to accept all technology and pricing decisions that the ILEC has made, regardless of whether these technologies or pricing schemes are necessary or useful for the ISP. Second, the ATM or Frame Relay service that ISPs must subscribe to forces the ISP to buy access to central offices for which it has no need for connection. The ISP, in effect, pays for far more than what it needs.

The fundamental issue to deploy advanced services is how to get Internet-based companies like PSINet physically connected to the ILEC local loop without forcing PSINet to accept constraining "value-add" services – such as additional system layers or geographic decisions -- that the ILEC has implemented for the ILEC's own purposes. With effective access to the local loop, PSINet can implement its own layers to deliver a range of Internet data services tailored according to the customer's specific demands. PSINet believes that a regulatory scheme that promotes as many providers as possible with access to the physical layer -- free from ILEC technological or protocol decisions -- would serve end-user demands for customized applications

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[9] See Exhibit 1, herein, for a discussion on "layering."

and advanced services. The more flexible the access offered to service providers, the more market dynamics among Internet companies will work effectively to meet consumer demand.

II. FCC Should Open Local Telecommunications Market So That ISP Providers Can Gain Access to Customers

As a matter of statutory law and Commission precedent, the promotion of advanced services, including advanced information services offered by ISPs, is in the public interest.[10] The Commission has correctly furthered this policy in the information services markets through regulatory action that protects ISP competition from ILEC discrimination and that opens the ILEC local network for alternative ISP usage.[11] The Commission has also properly declined to regulate the ISP market itself (as opposed to the telecommunications inputs) because regulatory interference raises barriers to entry, inhibits rapid change, and adds other costs that contradict the fundamental principle of vibrant competition in the ISP markets.[12]

In this proceeding, the Commission can effectively further these policy mandates by focusing on *access* to the underlying telecommunications capability and telecommunications services that competing providers use, including CLECs and ISPs, to offer competitive advanced services. This access to allow competitive advanced services can be accomplished in two ways.

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10 47 U.S.C. § 151 (Commission is to "make available, so far as possible, to all the people of the United States rapid [and] efficient . . . communications service . . ."), § 157 ("It shall be the policy of the United States to encourage the provision of new technologies and services to the public."), § 230(b)(1) ("It is the policy of the United States . . . to promote the continued development of the Internet . . ."); Third Computer Inquiry, Report and Order, 104 F.C.C.2d 958 (1986) ("Computer III") (subsequent history omitted).

11 See Computer III, 104 F.C.C.2d at 1064-65; Deployment of Advanced Telecommunications Capability, Notice of Inquiry, CC Dkt. No. 98-146, FCC 98-187, at ¶¶ 37-38 (rel. Aug. 7, 1998).

First, the Commission should adopt the proposals of ALTS and others to improve CLEC collocation arrangements and access to the unbundled copper loops of the ILEC. Second, the Commission can move forward with revisions to existing Open Network Architecture ("ONA") rules to provide ISPs with access to unbundled local loops. Once in place, the Commission must do more to monitor and enforce the rules providing for local service competition.

A. CLEC Competition Requires A Strengthened and More Functional Set of National Unbundling and Collocation Rules

Deployment of advanced services that are competitively-priced, diverse, and responsive to a broader range of consumer demands hinges on the ability of CLECs to gain access to the local loop.[13] PSINet envisions that CLECs could provide it with the access to xDSL conditioned unbundled loops, free from the ILEC-based constraints discussed above. PSINet could then connect with the CLEC customer's loop at a location relatively close to the central office, and provide services via the CLEC offering.[14]

PSINet strongly supports the NPRM proposals to improve the rights and terms of CLEC access to ILEC local loops.[15] As affirmed by the MO&O (¶ 53), ILECs have an obligation to provide loops that are conditioned for xDSL services.[16] Further, as the Commission suggests,

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(footnote continued from previous page)

12 See Computer III, 104 F.C.C.2d at 1123-24.

13 "[I]f we are to promote the deployment of advanced telecommunications capability to all Americans, competitive LECs must be able to obtain access to incumbent LEC xDSL-capable loops on an unbundled and nondiscriminatory basis." MO&O, ¶ 52.

14 In effect, the CLEC would function as a virtual collocator between the end-user and PSINet.

15 NPRM, ¶¶ 157-58.

16 I.e., removal of bridged taps, loading coils, or other electronic impediments.

CLECs must have objective and reliable information available to evaluate whether a given currently loop contains any such impediments to xDSL deployment. Regardless of whether the ILEC deploys on a separate subsidiary or on an integrated basis, the ILEC must offer access to such information to all competing ISPs and CLECs.[17]

PSINet also encourages the Commission to adopt flexible national standards for the attachment of electronic equipment at the ILEC central office.[18] CLECs should be free to collocate equipment necessary to meet diverse consumer demands.

Finally, collocation rules should be strengthened to prevent ILECs from imposing undue restrictions on the type of equipment collocated or on the form of collocation (such as virtual, "cageless," or physical) that best serves the CLEC's needs. Moreover, as the Commission suggests, a set of rules that promotes alternative, cost-based, arrangements are likely to lead to a greater efficiency of office space than the more rigid *ad hoc* rules developed by the ILECs themselves.[19]

B. ISP Access to Unbundled Loops Would Also Promote Competition and Diversity of Advanced Services.

In addition to CLEC competition, Internet-based advanced services competition can be promoted directly by providing ISPs with rights to unbundled network elements of the ILEC's local loops. ISPs could then communicate directly with their customers. While the NPRM

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17 Id., ¶ 158; MO&O, ¶ 56 (Section 251 nondiscrimination requirement is not met when CLECs are relegated to an OSS system which is slower or more cumbersome than the ILEC's own information systems).

18 NPRM, ¶ 163.

19 NPRM, ¶ 138.

suggests that ISP rights are also under consideration,[20] PSINet urges the Commission to consider the broader issues raised in this rulemaking in conjunction with the pending Computer III FNPRM proceeding.[21]

Stronger ONA builds on the Commission's policies for a more vibrant information services and advanced services market in two significant ways. First, as the Commission has often held, ONA prevents anti-competitive and discriminatory behavior by the RBOCs against independent ISPs. Such behavior is also a significant concern in this proceeding. In addition, as the Commission noted in the 1990 ONA Remand Order, ONA serves the public interest by allowing ISPs to make more efficient use of the LEC network:

> A major goal of ONA is to increase opportunities for ESPs to use the BOCs' regulated networks in highly efficient ways, enabling them to expand their markets for their present services, and develop new offerings as well, all to the benefit of consumers . . . promotion of efficient use of the network is one of the primary goals of the Communications Act.[22]

An ONA obligation that allows ISPs to obtain cost-based access to unbundled local loops to customers would serve the Commission's continuing ONA policies for an evolving level of unbundling. From its inception, the Commission required ILECs to unbundle "to the extent technologically feasible."[23] As the Ninth Circuit stated, ONA is intended to "enable enhanced service providers to pick and choose network service elements to design and develop enhanced

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20 NPRM, n. 266.

21 Computer III Further Remand Proceedings, Further Notice of Proposed Rulemaking, 13 FCC Rcd. 6040 (1998) ("Computer III FNPRM").

22 In the Matter of Computer III Remand Proceedings, Report and Order, 5 FCC Rcd. 7719, 7720 (1990) ("ONA Remand Order"), aff'd, California v. FCC, 4 F.3d 1505 (9th Cir.

services."[24] This standard is logically and technically indistinguishable from the ILEC's Section 251(c)(3) obligation to unbundle "at any technically feasible point."[25]

With the implementation of the 1996 Act, the Commission already requires the ILECs to "fundamentally unbundle."[26] Pursuant to the Local Competition Order, the RBOCs must unbundle to the extent technically feasible, including unbundled loops.[27] Unlike their network in 1988, the RBOCs can today implement an unbundling architecture, as required by Section 251, that is both specific and technically feasible. The Commission should now revamp its ONA rules to provide effective access for ISPs.[28]

(footnote continued from previous page)

23 Computer III, 104 F.C.C.2d at 1065.

24 California v. FCC, 39 F.3d 919, 929 (9th Cir.), cert. denied, 514 U.S. 1050 (1994).

25 47 U.S.C. § 251(c)(3).

26 FNPRM, ¶ 31 ("the unbundling requirements imposed by section 251 and our implementing regulations . . . are essentially equivalent to the 'fundamental unbundling' requirements proposed by certain commenters. . .").

27 First Report and Order, CC Dkt. Nos. 96-98, 95-185, 11 FCC Rcd. 15499, 15640 (1996) (subsequent history omitted) (Section 251(c)(3) "imposes on incumbent LEC the duty to provide all network elements for which it is technically feasible to provide access on an unbundled basis.").

28 The Commission has recognized that a "more fundamental unbundling could be a socially desirable goal," and that "properly designed ONA networks should be characterized by efficient interconnections and unbundled offerings that will the limit the carrier's ability to engage in discrimination and be hospitable to the competitive offering of enhanced services." BOC ONA Order-- Phase I, 4 FCC Rcd. 1, 5, 62 (1988) (subsequent history omitted). Indeed, the Commission's initial ONA approval order was prescient of the 1996 Act and today's Internet: "We recognize that the type of extensive unbundling advocated by Hatfield and others could, in the long term, have certain positive procompetitive effects in the enhanced service market as technology and regulatory policies evolve." Id. at 63-64.

In PSINet's view, ISP ONA rights would substantially forward the goals of this proceeding. While CLEC interconnection, collocation, and unbundling rights may significantly improve the chances for competitively priced advanced services, so too can ISP rights. It may be, for example, that CLECs will not serve independent ISPs in a given area. In addition, the efficiency gains through direct ISP access to unbundled network elements should be carefully considered. ISPs like PSINet can meet end-user choices for Internet-based services directly and across more market segments. Direct ISP-to-customer control over the local loop eliminates the CLEC as an intermediary, allowing the users and ISPs to customize Internet-based services and minimize transactions costs. ISP access could, in fact, provide incentives for both ILECs *and* CLECs to be more responsive to consumer demand for Internet-based products.

Finally, in many areas of the country, including rural areas, ISP access is imperative for advanced services because CLEC competition in these areas is not imminent. ISPs, however, proliferate throughout the country: PSINet itself has PoPs in communities surrounded by rural areas, such as Boise, ID, Billings, MT, Joplin, MO, and Huntsville, AL. Other ISPs also are invested in those areas and could offer end-users a range of advanced services that the ILEC may never offer unless some competition emerges.[29]

C. FCC Should Strongly Enforce Access Rights of Competing Providers

Enforcement of the Commission's provisions to promote the development of a competitive market for advanced services is critical. ILECs simply will not comply in a fulsome way with new rules on collocation and unbundling, as is borne out by the myriad of ways that the ILECs have already stymied CLEC deployment. In PSINet's own experience, the ILECs have,

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29 See PSINet Network Maps, attached to PSINet NOI comments.

at times, demonstrated an inability to provide ISDN and leased lines, suggesting either incompetence or anti-competitive conduct. Therefore, PSINet suggests that the Commission should apply its Second R&O[30] accelerated process to CLEC and ISP complaints that raise issues of advanced services deployment and ILEC compliance with access obligations.[31] As the Commission noted, the accelerated complaint process is intended to effectuate the provisions of the 1996 Act and "to stimulate real competition among market participants."[32]

Further, PSINet suggests that the burden of production shift to the ILEC in a complaint proceeding, once the complainant has met the pleading requirements of an initial complaint and has demonstrated a prima facie case against the ILEC.[33] Burden shifting will encourage more day-to-day compliance by the ILEC, and will aid in the resolution and settlement of such complaints once filed.[34] Similarly, the Commission should not employ a presumption of

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30 "Amendment of the Commission's Rules Regarding Procedures to be Followed When Formal Complaints are Filed Against Common Carriers," Second Report & Order, CC Dkt. No. 96-238, FCC 98-154 (rel. July 14, 1998) (the "Second R&O").

31 The MO&O (¶ 55) generally adopts the position that CLEC complaints should be handled using the accelerated process. PSINet believes that both ISP and telecommunications carrier complaints against ILECs should be presumed suitable for the accelerated complaint procedures. Either such complainant could raise issues of market competition that are integral to the 1996 Act.

32 Id. at ¶¶ 1, 18.

33 See Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act, First Report and Order, 11 FCC Rcd. 21905, ¶¶ 345-51 (1996) ("Non-Accounting Safeguards Order") (Commission adopts burden of production shift to RBOCs in Section 271/272 complaints).

34 Non-Accounting Safeguards Order, ¶¶ 346-47 (burden shifting improves expeditious resolution of complaints, and ensures that RBOCs take local competition laws seriously).

reasonableness of the RBOC's conduct; such a presumption is unnecessary and could interfere with the enforcement of competing providers' rights.[35]

Finally, the Commission should adopt ILEC performance standards that allow the Commission to monitor the progress of ILEC compliance. These standards should establish benchmarks measuring actual ILEC services demanded and the response times – such as for collocation, unbundling, lines (T1, T3, and ISDN) – as well as the need for corrections, modifications, or any informal complaints. Moreover, providing this information on a state-by-state basis would be helpful so that state regulators, and the public, would know which ILEC units are implementing local network demands, and which are not. These performance standards could be integrated with the proposed Commission surveys and data collection on the state of local and exchange access competition.[36]

III. FCC Should Maintain RBOC LATA Restrictions

PSINet urges the Commission not to adopt interLATA relief to permit RBOCs to carry aggregated Internet communications across LATA boundaries to Internet network access points ("NAPs"). Such relief is not a Section 3(25) LATA "modification."[37] The plain language of the Sections 271 and 272 of the Communications Act permits RBOC participation in the interLATA markets, including Internet communications, *only after* the RBOC complies with the Section 271 competitive checklist and Section 272 safeguards. The LATA modification process cannot undercut this clear statutory scheme.

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35 See, e.g., id. at ¶ 351 (FCC eliminates presumption of reasonableness of RBOC conduct in Section 271 complaints).

36 See "Common Carrier Bureau Seeks Comment on Local Competition Survey," Public Notice, CC Dkt. No. 91-141, CCB-IAB File No. 98-102 (rel. May 8, 1998).

As a matter of law, the proposal flatly contradicts the 1996 Act. InterLATA relief that permits RBOCs to function as a replacement for other Internet backbone providers "effectively eviscerate[s] section 271 and circumvent[s] the procompetitive incentives for opening the local market to competition that Congress sought to achieve in enacting section 271 of the Act."[38] Section 271(a) of the Act prohibits the RBOCs from against interLATA information and telecommunications, except when the RBOC meets the express terms of the statute. Section 271 simply does not empower the Commission to nullify the express statutory proscription by weighing it against a perceived need for RBOC interLATA lines to Internet NAPs. In each case-by-case waiver, the Section 271 prevents the Commission from finding that a waiver, or modification, would serve the public interest.

In addition to Section 271, other statutory provisions reinforce that Congress meant for the Commission to strictly enforce, and not trade away, the interLATA restrictions. For example, Section 10(d) of the Act forbids the Commission from any act of forbearance from Section 271 "until it determines that those [section 271] *requirements have been fully implemented.*"[39] The general goals of Section 706 for advanced services do not obviate the Commission's primary role of implementing the will of Congress as expressed in the statute. Indeed, the Commission has explained that Section 706 was "adopted contemporaneously with" the Section 10 proscription and that "Congress was well aware of the explicit exclusions of our

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(footnote continued from previous page)

37 47 U.S.C. §153(25).

38 MO&O, ¶ 82.

39 47 U.S.C. § 160(d) (emphasis added).

forbearance authority in section 10(d)."[40] Moreover, Congress did address the issue, with an express and *limited* "incidental interLATA services" for Internet services to "elementary and secondary schools."[41] For the Commission to expand the terms of this limited exception, by taking up ad hoc LATA "modification" requests, would effectively override the express limitations of Section 271(g)(2).[42]

Moreover, PSINet finds that the LATA modifications permitted to date are qualitatively different than the proposal for interLATA service to NAPs. In both the LATA Association[43] and the Expanded Local Calling Area[44] cases, the Commission's LATA modifications were aimed at improving local exchange service or meeting changes in state determinations of appropriate local calling areas and were consistent with the MFJ Court decisions on LATA boundary waivers. The modifications were not to supplement some perceived limitations of the interLATA service industry. The interLATA-NAP proposal, however, is qualitatively different because it would provide the RBOCs a method of entering the traditional market sphere of interLATA providers, contravening the Section 271 restriction. This approach is also inconsistent with the MFJ waiver

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40 MO&O, ¶ 75.

41 47 U.S.C. § 271(g)(2).

42 See MCI v. AT&T, 512 U.S. 218 (1994) (the term "modify" means to change moderately or in a minor fashion, not to rewrite the statutory plan).

43 See Guadeloupe Valley Telephone Cooperative Request for LATA Relief, Memorandum Opinion and Order, 13 FCC Rcd. 4560, 4563-64 (CCB 1998).

44 See Petitions for Limited Modification of LATA Boundaries to Provide Expanded Local Calling Service; Memorandum Opinion and Order, File No. NSD-LM-97-2, ¶¶ 14-17 (rel. July 15, 1998).

process,[45] and the policies the Commission expresses in this proceeding to encourage the ILECs to open local markets to competition.

PSINet also finds that the InterLATA NAP proposal will not likely meet the goal of securing high-speed Internet-based services for end-users. As PSINet and many other commenters have shown, the provision of Internet backbone services is a competitive business today.[46] The insertion of the RBOCs into this market, with their monopoly control to the end-user, is likely to hamper competition. If the Commission is committed to let market competition reign in such markets, then it must resist the temptation to intervene based on RBOC claims that somehow the competitive market has gone askew.[47]

In addition, requests to provide raw bandwidth using RBOC interLATA lines reflect a misunderstanding of the common causes of less-than-expected application performance on the Internet. Since effective data transmission over the Internet depends on low packet loss rather than line capability, such issues would not be resolved through additional lines for raw bandwidth; rather, the causes of Internet congestion are more related to protocol dynamics. Internet performance problems are best addressed through Internet-specific engineering

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45 United States v. Western Elec. Co., 1986-1 Trade Cases 62,055, 62,060 (In declining to permit Pacific Bell's ownership of interLATA transmission facilities, MFJ Court explained that "the prohibition against Regional Company entry into interexchange business -- like that against entry into the information services business . . . -- lies at the heart of the decree").

46 See Reply Comments of PSINet, CC Dkt. Nos. 98-11, 98-26, 98-32, at 6-7 (filed May 6, 1998).

47 Bell Atlantic-West Virginia's recent request for LATA modification also raises the possibility that the Commission's LATA modification process can be subject to manipulation. The record of that proceeding shows that Bell Atlantic was not interested in contacting other providers of interLATA lines that were, in fact, ready and

(footnote continued to next page)

strategies that are not always emphasized or well-understood in the telephony community. For these reasons, RBOC-provided solutions are unlikely to actually serve the underlying goal of "facilitating high-speed access."[48]

Conclusion

PSINet requests that the Commission open up the local loop for robust competition by all providers to facilitate the deployment of Internet-based services. Such services would then be available for consumers in both metropolitan and rural areas.

Respectfully submitted,

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able to provide the services. Rather, it underscores the RBOC's desire to vertically integrate interLATA services with local access, by inventing a "backbone crisis."

[48] NPRM, ¶ 194.

Exhibit 1

"[L]ayering is the organization of programming into separate steps that are performed sequentially, defined by specific interfaces for passing the result of each step to the next program or layer until the overall function, such as the sending or receiving of some amount of information, is completed.

"Communication programs are often layered. The reference model for communication programs, Open System Interconnection (OSI) is a layered set of protocols in which two programs, one at either end of a communications exchange, use an identical set of layers. OSI consists of seven layers, each reflecting a different function that has to be performed in order for program-to-program communication to take place between computers.

...

"Although many existing hardware and software products have been developed on a slightly different model, the OSI model is often used as a guideline when new products are designed and serves as a common reference for understanding any particular design or comparing it with others.

"OSI is a seven layer model:

- The application layer (layer 7): This is the layer at which a user and a computer interface to a network view a message or data request or response.
- The presentation layer (layer 6): This is a layer, usually part of an operating system, that converts incoming and outgoing data from one presentation format to another (for example, from a text stream into a popup window with the newly arrived text).
- The session layer (layer 5): This layer manages the establishment of a continuing series of requests and responses between the applications at each end.
- The transport layer (layer 4): This layer manages the end-to-end control (for example, determining whether all packets have arrived) and error-checking.
- The network layer (layer 3): This layer handles the routing of the data (sending it in the right direction to the right destination on outgoing transmissions and receiving incoming transmissions at the packet level).
- The link (or data-link) layer (layer 2): This layer provides error control and synchronization for the physical level and does bit-stuffing for strings of 1's in excess of 5.
- The physical layer (layer 1): This layer conveys the bit stream through the network at the electrical and mechanical level."

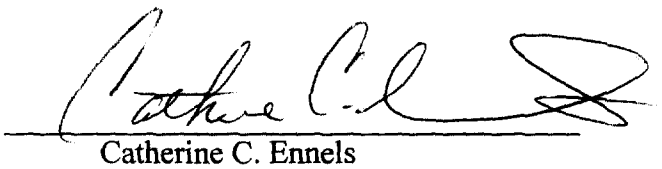
Whatis.com <http://www.whatis.com>.

CERTIFICATE OF SERVICE

I hereby certify that on this 25th day of September, 1998, a copy of the foregoing Comments were mailed, postage prepaid, first class mail to the following:

Chairman William E. Kennard Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554	Commissioner Susan Ness Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554
Commissioner Harold Furchtgott-Roth Federal Communications Commission 1919 M Street, N.W., Room 802 Washington, D.C. 20554	Commissioner Michael K. Powell Federal Communications Commission 1919 M Street, N.W., Room 844 Washington, D.C. 20554
Commissioner Gloria Tristani Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554	John Nakahata Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554
Thomas Power Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554	James Casserly Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554
Paul Misener Federal Communications Commission 1919 M Street, N.W., Room 802 Washington, D.C. 20554	Kyle Dixon Federal Communications Commission 1919 M Street, N.W., Room 844 Washington, D.C. 20554
Rick Chessen Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554	Paul Gallant Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554
Katherine Brown Federal Communications Commission 1919 M Street, N.W., Rm. 500-B Washington, D.C. 20554	Jason Oxman Federal Communications Commission 1919 M Street, N.W., Rm. 534-W Washington, D.C. 20554

Balise Scinto Federal Communications Commission 1919 M Street, N.W., Rm. 544-F Washington, D.C. 20554	Dr. Robert Pepper Federal Communications Commission 1919 M Street, N.W., Rm. 822 Washington, D.C. 20554
Elizabeth Nightingale Federal Communications Commission 1919 M Street, N.W., Rm. 534-O Washington, D.C. 20554	Stagg Newman Federal Communications Commission 2000 M Street, N.W., Rm. 268 Washington, D.C. 20554
Jonathan Askin Federal Communications Commission 1919 M Street, N.W., Rm. 544 Washington, D.C. 20554	



Catherine C. Ennels