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FEDERAL COMMUNICATIONS COMMISSION
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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262
	)	
Price Cap Performance Review for Local Exchange	)	CC Docket No. 94-1
	)	
Transport Rate Structure and Pricing	)	CC Docket No. 91-213
	)	
Usage of the Public Switched Network by Information Service and Internet Access Providers	)	CC Docket No. 96-263

JOINT REPLY COMMENTS OF BELL ATLANTIC AND NYNEX ON NOTICE OF INQUIRY

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April 23, 1997

No. of Copies rec'd 0+18
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JOINT REPLY COMMENTS OF BELL ATLANTIC[1] AND NYNEX[2] ON NOTICE OF INQUIRY

I. Introduction and Summary

There is near-unanimous consensus in the comments that the Commission's policies should encourage Internet traffic to migrate from the circuit-switched public switched telephone network to new services, such as packet-switched services, which are better suited to the transport of data. Most parties agree that the best way to achieve this result is by eliminating the enhanced service provider ("ESP") "exemption."

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[1] The Bell Atlantic telephone companies ("Bell Atlantic") are Bell Atlantic-Delaware, Inc.; Bell Atlantic-Maryland, Inc.; Bell Atlantic-New Jersey, Inc.; Bell Atlantic-Pennsylvania, Inc.; Bell Atlantic-Virginia, Inc.; Bell Atlantic-Washington, D.C., Inc.; and Bell Atlantic-West Virginia, Inc.

[2] The NYNEX telephone companies ("NYNEX") are New York Telephone Company and New England Telephone and Telegraph Company.

Like interexchange carriers, Internet Service Providers ("ISPs") use the local network to originate interexchange telecommunications. The rapidly increasing level of ISP traffic on the local exchange network has required local exchange carriers ("LECs") to make emergency investments of hundreds of millions of dollars to prevent service degradation to all telephone customers, and expected future Internet growth will cause these figures to multiply many times.

Over the long-term, ISPs that continue to use the public circuit-switched telephone network should be required to pay usage-based rates that cover the traffic-sensitive costs that they impose on that network. In the interim, the Commission should allow the local exchange carriers to charge rates that more closely reflect the cost of providing service than the below-cost rates the ISPs currently pay. This will require ISPs to compensate the LECs for the costs they are imposing on the network and give them an incentive to embrace more appropriate data services, such as packet-switched services. This, in turn, will provide an incentive to the LECs to invest in these new more efficient means of carrying Internet data traffic.

II. Eliminating the ESP Exemption Will Encourage Diversion of Internet Traffic From the Public Switched Telephone Network.

Nearly all of the parties appear to agree on one key issue, that the public switched telephone network ("PSTN"), as presently engineered, is an inefficient and inferior way of providing ISPs with access into the Internet. There is a consensus that new packet-switched and other data-oriented services, some currently available and some still under development, can better serve the interests of the ISPs, their customers, and the LECs. Bell Atlantic's analysis

shows that use of data networks for Internet traffic will reduce additional expenditures to accommodate the Internet by 60% as opposed to continued use of the public switched network.

The principal dispute is what change in Commission policies is needed to facilitate deployment of these new networks. The overwhelming majority of commenters recognize that current policies undermine that goal. The LECs, the interexchange carriers, and many ISPs alike agree that the Commission should require the ISPs to pay cost-based charges for Internet access.[3] By eliminating the fourteen-year-old "temporary" ESP exemption and requiring the ISPs to pay their own way, the Commission would remove the current disincentive for ISPs to embrace more efficient technologies and services.[4] As the Alliance for Public Technology ("APT") sums it up, "the imposition of interim ISP access charges or fees will provide incentives to move ISP traffic off of the voice network and on to data networks."[5]

In the rulemaking portion of this proceeding, the Commission is considering various proposals for revised interstate access charges. Once those new rates are in place, ISPs should pay rates for the *traffic-sensitive* portion of the local network when they use circuit-switched service options, plus charges for the local transport services they use. These rates would not include the non-traffic sensitive port costs that are currently included in local

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[3] ***See, e.g.***, Comments of CompuServe Incorporated and Prodigy Services Corporation at 12-13, Comments of AT&T Corp. at 24-27 ("AT&T"), Comments of MCI Communications Corporation at 4-5.

[4] The exemption allows the ISPs to use local business lines that are flat-rated at the terminating end. Those lines are in almost constant use as end users use the ISPs for Internet access, yet the ISPs pay no usage charge for what is essentially interstate access service.

[5] Comments of the Alliance for Public Technology at 8.

switching rates, as the Commission has proposed in the access proceeding.[6] They will require ISPs to compensate the LECs for the costs they are imposing on the network and give them an incentive to embrace more appropriate data services, such as packet-switched services. This, in turn, will provide an incentive to the LECs to invest in these new more efficient means of carrying Internet data traffic.

Until those new rates become effective, however, there is no justification for retaining the existing below-cost charges for ISP access. Instead, the LECs should be permitted to propose appropriate interim interstate rates to help defray their costs. While the Commission should give LECs some discretion to propose reasonable interim rates, it could reasonably give some guidance. First, it should state that it would not allow LECs to apply current access rates to the ISPs, as the Commission already tentatively concluded in this docket.[7] It could find that other approaches that are shown to be designed just to cover the traffic-sensitive costs of providing service would be reasonable. These may take the form of a usage-based charge for terminating traffic, a monthly surcharge to cover the increased network costs from ISP traffic volumes, or a combination of fixed and variable charges. Such an interim rate would replace the current below-cost charges and, therefore, provide an immediate incentive for ISPs to embrace newer technologies that would provide a more efficient means of transporting data traffic than the PSTN. Allowing flexibility in rate design would accommodate the significant differences

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[6] ***Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry***, FCC 96-488, ¶¶ 56, 72-73 (rel. Dec. 24, 1996).

[7] ***Id.*** at ¶ 283

that exist among LECs regarding the capabilities of their billing systems and allow them to offer a price structure that best meets individual ISP needs.

III. Only Massive Investment Has Prevented Local Service Degradation.

The Internet Access Coalition ("IAC") agrees that packet-switched networks are far more efficient for Internet-type data traffic than the circuit-switched PSTN.[8] While not denying that Internet use has sharply increased network traffic, IAC argues that this increase has not contributed appreciably to network congestion, and that any congestion that has occurred can be "easily" corrected.[9]

If by "congestion" IAC means degradation of local telephone service, the only reason the public has not seen very much congestion is that the LECs have already spent hundreds of millions of dollars in emergency investment to maintain high-quality telephone service to *all* of their local exchange customers in the wake of the sudden increases in Internet traffic. During 1996 and 1997, Bell Atlantic alone will have spent nearly a half-billion dollars in unanticipated investment to expand network capacity.[10] In New York, NYNEX has installed an entire central office switch and new trunks, exclusively for the use of ISPs, to prevent excessive

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[8] Comments of the Internet Access Coalition at 14-15.

[9] ***Id.*** at 10-14.

[10] Bell Atlantic invested nearly $200 million in 1996 and expects to spend more than $300 million this year in unanticipated emergency expansion.

ISP traffic demands from harming other customers' service.[11] Therefore, even though the ISPs, which receive below-cost service, are the cause of the increased investment, Bell Atlantic and NYNEX have not been willing to allow service to their local telephone customers to suffer. This does not mean, however, that Internet traffic is not burdening the network, and it does not justify retaining the ESP exemption. The current below-cost rates that ISPs pay cause them to saturate a network that was designed for voice conversations and is inefficient for data communications. Of necessity, LECs must adopt remedies which divert investment resources from more cost-effective methods of dealing with Internet traffic.

The IAC, however, claims that any congestion in the PSTN can "easily" be alleviated.[12] Most of IAC's "solutions" consist of expanding the capacity to the PSTN to accommodate the increased traffic. This "fix" is what is now happening, with the investment of hundreds of millions of dollars of circuit-switched facilities to accommodate Internet data traffic when the resources should be devoted to deploying new, more efficient packet-switched data networks.

Another proposed "fix" is through "load balancing" or "deloading" traffic from overloaded concentration units to those which have spare capacity.[13] Load balancing or deloading can be accomplished only on an individual customer line basis; that is, all of a customer's traffic would be moved from one concentrator to another to balance the load. This

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[11] ***See*** Joint Comments of Bell Atlantic and NYNEX on Notice of Inquiry at 6-7 ("Bell Atlantic/NYNEX Comments").

[12] IAC at 9-17.

[13] ***Id.*** at 12-14.

requires that the traffic volumes over each customer line be manually evaluated in order to decide which lines should be moved to a different unit. Such a manual effort is economically infeasible for the millions of customer lines that may potentially access the Internet. Even if such a wholesale evaluation of individual line traffic were practical, which it is not, it would need to be performed all over again each time a particular customer's traffic pattern changes, as happens frequently as customers increase or decrease their Internet use. IAC's "solution" will not reduce costs or prevent congestion, as it claims.

Instead, as Bell Atlantic and NYNEX have discovered, the only way to avoid congestion is through massive new network investment to expand facilities to accommodate the increased traffic. This is because congestion caused by increased Internet traffic impacts the PSTN at so many points in the network -- at the egress switches where traffic is terminated to ISPs, at widely distributed ingress switches where end users originate traffic, and in the connecting facilities and intermediate points where aggregation occurs. Because Internet traffic differs significantly from historical trends, it is almost impossible to forecast with any accuracy. The very fact that Bell Atlantic and NYNEX have had to react to this demand through emergency means bears evidence of this impact. The cost, both in dollars and diversion of human resources, is significant.

Nor is it either necessary or appropriate to undermine the Commission's entire interconnection and access charge structure to meet the needs of ISPs, as several commenters urge.[14] Adoption of the access changes that parties want -- sub-loop unbundling, ESP

[14] ***See, e.g. id.*** at 42-54, Comments of WorldCom at 23-24 ("WorldCom"), Comments of America Online, Inc. at 25.

collocation, unbundling of Part 69 elements, or repricing of collocation services -- would, in fact, further exacerbate the problem by requiring the LECs to make even greater investments in the PSTN just to accommodate the ISPs, rather than giving the ISPs an incentive to migrate to more data-friendly services, such as packet-switched services. Repricing of access to induce them to use these alternative networks, not reconsideration of numerous regulatory decisions, is all that is needed to serve ISPs' needs efficiently.

The Internet User Coalition ("IUC") argues that the only way to induce LECs to invest in new network technologies is to require the LECs to absorb the costs of providing Internet access services over the PSTN.[15] The IUC argues that retaining below-cost rates to ISPs for the PSTN will give the LECs an incentive to invest in new technologies and to build new data networks, rather than investing in additional PSTN facilities.[16] According to the IUC, once the new data networks are built, the ISPs will use them.[17]

This "Field of Dreams" scenario ignores reality. First, as discussed above, even though they cannot recover all their costs, the LECs *are* investing in the local network just to maintain quality service to their telephone customers. Second, the LECs *are* building new data-only networks, but the ISPs have little incentive to use them under the current rate structure. For example, Bell Atlantic offers its packet-switched Internet Protocol Routing Service ("IPRS") in most areas where it offers local telephone service, and NYNEX will soon offer a similar service

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[15] Comments of the Internet User Coalition at 10-12.

[16] ***Id.***

[17] ***Id.*** at 12-13.

called Information Provider Access Service. Few ISPs have subscribed to Bell Atlantic's service, and none of the large ISPs have done so, because they currently pay below-cost rates for access to the PSTN and because they have already invested in modem equipment to send data over the PSTN. Actual experience, therefore, disproves IUC's theories. Unless the Commission removes the ESP exemption for ISPs, the LECs will need to continue to implement inefficient means of handling Internet traffic.

IV. ISPs Are Not End Users and Internet Traffic Is Not Local Traffic.

Several parties assert that the ISPs should continue to pay local business rates because they are "just like" end users.[18] They argue that, because the ESP exemption currently permits the ISPs to use end user services for their interstate access, they should be allowed to subscribe to end user services in perpetuity.[19] Unlike end users, however, the ISPs do not take communications services for their own use. Instead, as the Commission has previously found, they behave like interexchange carriers, and almost exactly like resellers, because they use the local network to provide interstate services to their end users.[20] The simple fact is that Internet traffic is inherently interstate, interexchange traffic, not local traffic, just as is access traffic sent to interexchange carriers. ISPs purchase access to the Internet from facilities-based Internet

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[18] ***See*** Comments of Juno Online Services, L.P. at 8-11 ("Juno"); Comments of NetAction, et al. at 13-15 ("NetAction"); Comments of CAIS, Inc. at 5-7 ("CAIS").

[19] Juno at 10.

[20] ***See Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers***, 2 FCC Rcd 4305, ¶ 7 (1987) ("Enhanced service providers, like facilities-based interexchange carriers and resellers, use the local network to provide interstate services.")

carriers and use the local network to transmit end user communications through the Internet to locations throughout the world.

Nor are their traffic patterns similar to those of end users. Within Bell Atlantic's network alone, the ISPs are expected to generate some 25 billion minutes of use during 1997, an amount equivalent to 30% of the total of all interexchange carrier traffic. At the present rate of growth, by the turn of the century, the ISPs will generate nearly as many minutes of use as interexchange carriers.[21] No end user segment of comparable size comes close to generating traffic of this magnitude.

Internet traffic is so pervasive that it has completely changed the network peak periods. Non-Internet end user traffic generally peaks during mid-morning and mid-afternoon of the weekday for businesses and late afternoon for residences. In many areas, Internet traffic has moved peak network usage to the evening, it has sharply increased the peak traffic volume, and it has maintained these volumes for hours at a time. No end user segment exhibits these traffic patterns or characteristics.

Moreover, the traffic sent to the ISPs is used to access databases located around the world. Neither the customer nor the ISP knows or cares the location of that database, so that any attempt to try to calculate the percentage of interstate or interexchange use must fail. Instead, the Commission should find, as its staff has after extensive analysis, that Internet access is *not* local traffic, but instead "should be treated as inherently interstate"[22] and interexchange,

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[21] ***See*** Bell Atlantic/NYNEX Comments at 9.

[22] Kevin Werbach, ***Digital Tornado: The Internet and Telecommunications Policy***, FCC OPP Working Paper Series 29 (March 1997) at 40. ***See also*** AT&T at 28, CAIS at 13, NetAction at 15, WorldCom at 1-2.

subject to the Commission's sole jurisdiction.[23] It should determine that ISPs exhibit traffic characteristics which are very like those of interexchange carriers and which place similar demands on the local network.

Given those characteristics, no public policy is served by allowing ISPs to continue to pay rates for network access that fail to cover their costs. As part of access reform, the Commission should require the ISPs to pay access charges that recover the usage-sensitive costs they impose on the network, as discussed above. Until the Commission develops a permanent rate structure for ISP access, it should entertain LEC proposals, in the form of tariff filings, for interim rates that will approach the traffic-sensitive cost of providing service.

V. Claims of Anticompetitive Conduct Are Undocumented and Untrue.

The Pennsylvania Internet Service Providers ("PaISPs") make a number of allegations regarding Bell Atlantic's conduct in Pennsylvania, including delayed installations,[24] service unavailability,[25] and requirements to turn over sensitive information.[26] All of these allegations are stated vaguely, with no indication of the ISP involved, the date, or the place

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[23] For this reason, Internet traffic is not subject to reciprocal compensation, and the Commission should so find. ***See*** Bell Atlantic/NYNEX Comments at 13-15. Some competing local exchange carriers claim otherwise and are attempting to charge the LECs for this traffic under reciprocal compensation agreements. Under their theory, the LECs would not just lose money on the access services, but they would also pay their competitors to deliver the traffic to the ISP.

[24] Comments of the Pennsylvania Internet Service Providers on Notice of Inquiry at 5-6.

[25] ***Id.*** at 5.

[26] ***Id.***

where the alleged problem took place. There is no documentation for any of the allegations. However, Bell Atlantic will attempt to respond.

First, the PaISPs claim that they are not using Bell Atlantic's packet-switched IPRS network because "the price of the service is extremely high and is not a cost-effective solution for most independent ISPs."[27] However, when the IPRS tariff was filed, no party objected to the rate levels or to any other aspect of the tariff and, until now, no party has claimed that the rates are excessive. In fact, when adjusted for the increased modem and network management costs that an ISP incurs when it uses business lines, but which are not needed for IPRS, the IPRS prices are only about 1/3 higher than circuit-switched business line rates and are lower than most other available services. If the business line rates were adjusted to cover the costs the ISPs place on the network, they would be comparable to the IPRS rates, and many ISPs would find IPRS a cost-effective solution that also gives them improved performance.

Second, there is no truth to the PaISPs' undocumented claim that IPRS is unavailable to unaffiliated ISPs or that installation has been unreasonably delayed.[28] All requests for the tariffed IPRS service in the locations specified in the tariff have been met promptly. Moreover, the PaISPs' claim that the ISP must turn over customer lists and passwords in order to obtain service is absolutely false. Bell Atlantic neither requests nor would accept end user lists or passwords from ISPs. It requires that the ISP provide only the minimum information (such as premises location) needed to install and test the service, and that does not include end user lists or passwords.

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[27] ***Id.***

[28] ***Id.***

Finally, the PaISPs falsely claim that the LECs have not invested adequately in their regulated networks.[29] Their analysis is based upon false assumptions and is invalid. They base their claim on figures showing that the increase in plant in service by all LECs over a four-year period was less than the depreciation expense taken in the same period.[30] There is no correlation between these figures. First, depreciation expense is the allocation over time of the cost of plant that is still in service and has no relationship to the amount of new investment. Second, the figure used as the increase in plant in service is the change in the value of all plant and takes into account retirements as well as additions. If, for example, one million dollars of plant is retired in a given year and two million dollars of new plant is added, the net plant in service amount will increase by one million dollars, even though the LEC will have invested two million dollars in new plant, but the figures the PaISPs cite do not reflect that reality.

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[29] ***Id.*** at 11-14.

[30] ***Id.*** at 11-12.

VI. Conclusion

The Commission should immediately terminate the ESP exemption. Once new access charges are adopted, ISPs should be charged the traffic-sensitive rate element, plus local transport. In the interim, LECs should be able to propose a cost-based rate that helps to defray the costs that ISP access is imposing on the public switched network.

Respectfully Submitted,

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April 23, 1997

CERTIFICATE OF SERVICE

I hereby certify that on this 23rd day of April, 1997 a copy of the foregoing "Joint Reply Comments of Bell Atlantic and NYNEX on Notice of Inquiry" was served by hand on the parties on the attached list.

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