

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

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
GTE Telephone Operating Companies) CC Docket No. 98-79
GTOC Tariff FCC No. 1)
GTOC Transmittal No. 1148)

DIRECT CASE OF GTE

GTE Service Corporation and its
affiliated domestic telephone operating
companies

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SUMMARY

GTE's May 15, 1998 tariff introduces Asymmetrical Digital Subscriber Line (ADSL) Service to a number of central offices in specific portions of 14 states, enabling customers to provide high-speed Internet access to their end users. ADSL service will be most commonly used by Internet Service Providers (ISPs), as part of their end-to-end Internet service, although ADSL may also be ordered by businesses, IXCs, or CLEC customers. GTE's ADSL service provides a high-speed access connection between an end user and the Internet by utilizing a combination of the end user's existing local exchange physical plant (i.e. copper facility), specialized ADSL equipment, and transport to the frame relay switch (or connection to DS1 or DS3 facilities) where the ISP connects to GTE's network. This new offering affords significant pro-competitive benefits to the public including more efficient service, increased consumer choices, and greater incentives to invest in advanced technologies.

On August 20, 1998 the Chief of the Common Carrier Bureau issued an "Order Designating Issues for Investigation" to determine "whether GTE's DSL service offering is a jurisdictionally interstate service" and "whether the Commission should defer to the states the tariffing of retail DSL services in order to lessen the possibility of a price squeeze."

ADSL-provided service is properly tariffed at the federal level. The Commission and the courts have uniformly held that it is the nature of the end-to-end communication that determines jurisdiction, not what technology is used, where the equipment is located, or any intermediate piece of the network. This jurisdictional determination has been applied across a variety of services and has consistently rejected efforts to

segment communications into multiple piece parts, regardless of whether multiple services are involved or whether another carrier's or an end user's equipment is involved in the communication. ADSL-provided service, when analyzed as an end-to-end communication, is clearly interstate.

As a technological matter, Internet traffic cannot be separated into jurisdictional categories. A single Internet session may involve intrastate, interstate and international communications consecutively or concurrently. In this context, the intrastate uses cannot be segregated from the predominant interstate services. This inability to segregate traffic warrants interstate treatment under the inseparability doctrine. Moreover, ADSL is analogous to a dedicated access service and satisfies the Commission's ten percent interstate traffic threshold for federal regulation of special access services in any event. Federal tariffing is also consistent with the Commission's prior decisions treating Internet services as predominantly interstate.

Finally, allegations of a hypothetical "price squeeze" supply no basis for the Commission to defer to the states in tariffing this interstate service. Northpoint's argument irrationally presumes that both state and federal regulators will fail to perform their respective responsibilities, ignores the dual regulatory structure inherent in the Act, and fails to recognize that the Commission is fully capable of fulfilling its responsibilities in evaluating the ADSL-tariff. Thus, based on the alleged threat of a "price squeeze," there is no basis for Commission abdication of its jurisdiction over tariffing this interstate service.

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DIRECT CASE OF GTE

GTE Service Corporation and its affiliated domestic telephone operating companies (collectively, "GTE"),¹ pursuant to Section 204(a) of the Communications Act and the Order Designating Issues for Investigation,² hereby files its direct case in the above-referenced matter. On May 15, 1998 GTE filed Transmittal No. 1148 establishing a new Asymmetrical Digital Subscriber Line (ADSL) service to become effective May 30, 1998.³ On August 20, 1998 the Chief of the Common Carrier Bureau

¹ GTE Alaska Incorporated, GTE Arkansas Incorporated, GTE California Incorporated, GTE Florida Incorporated, GTE Hawaiian Telephone Company Incorporated, The Micronesian Telecommunications Corporation, GTE Midwest Incorporated, GTE North Incorporated, GTE Northwest Incorporated, GTE South Incorporated, GTE Southwest Incorporated, Contel of Minnesota, Inc., and Contel of the South, Inc.

² *GTE Telephone Operating Companies, GTOC Tariff FCC No. 1, GTOC Transmittal No. 1148, Order Designating Issues for Investigation, CC Docket No. 98-79 (CCB August 20, 1998)*("Designation Order").

³ On May 29, 1998 the Common Carrier Bureau released an order suspending the Transmittal for one day and requiring GTE to keep an accounting for revenue from this service. *GTE Telephone Operating Companies, GTOC Transmittal No. 1148, CC Docket No. 98-79, DA 98-1020 (CCB May 29, 1998)*.

issued an "Order Designating Issues for Investigation" to determine "whether GTE's DSL service offering is a jurisdictionally interstate service" and "whether the Commission should defer to the states the tariffing of retail DSL services in order to lessen the possibility of a price squeeze."⁴

As set forth below, ADSL-provided service is properly tariffed at the federal level. For over fifty years the Commission and the courts have uniformly held that it is the nature of the end-to-end communication that determines jurisdiction, not the technology used, where the equipment is located, or what intermediate connections are made in completing the communication. ADSL-provided service, when properly analyzed as an end-to-end communication, is clearly interstate.

As a technological matter, due to the nature of the Internet protocol and the way users utilize the Internet, Internet traffic cannot be separated into jurisdictional categories. A single Internet session may involve intrastate, interstate and international communications consecutively or concurrently. In this context, the intrastate uses cannot be segregated from the predominant interstate services. This inability to segregate traffic warrants interstate treatment under the inseparability doctrine. In any event, ADSL is analogous to a special access service and satisfies the Commission's ten percent interstate traffic threshold for federal regulation of that service. Federal

⁴ *Designation Order* at 5. This Direct Case is timely filed pursuant to the extension granted by the Commission. Public Notice, GTE Telephone Operating Companies Transmittal FCC No. 1148 - Pleading Cycle (DA 98-1793) (rel. Sept. 3, 1998).

tariffing is also consistent with the Commission's prior decisions recognizing the interstate nature of Internet services.⁵

Finally, Northpoint's allegations of a hypothetical "price squeeze" supply no basis for the Commission to defer to the states the tariffing of this service. This argument irrationally presumes that both state and federal regulators will fail to perform their respective responsibilities, ignores the dual regulatory structure inherent in the Act, and fails to recognize that the Commission is fully capable of fulfilling its obligations in evaluating the ADSL-tariff. Thus, based on the alleged threat of a "price squeeze," there is no basis for Commission abdication of its jurisdiction over tariffing this interstate service.

STATEMENT OF FACTS

GTE's tariff introduces ADSL Service. GTE proposed, based on the environment in place at the time,⁶ to deploy ADSL in a number of central offices in specific portions of 14 states, enabling customers to provide high-speed Internet access to their end users.⁷ As marketed by GTE and confirmed by its commercial roll-out,

⁵ Of course, under the dual regulatory regime envisioned by Congress, interstate services are to be tariffed at the federal level.

⁶ GTE made the ADSL filing based on the facts and circumstances known as of May 15, 1998 and the corresponding need for rapid deployment of broadband advanced services in the market. Since that time, the Commission has taken action that might alter the regulatory environment and GTE reserves all rights to amend this filing and alter its business decisions accordingly. GTE will further address these matters in comments to be filed in *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, CC Docket No. 98-147 et al, FCC 98-188 (August 7, 1998).

⁷ As set forth in the tariff, an end user is a "Customer Designated Location" (see Section (Continued...))

ADSL service will be most commonly used by Internet Service Providers (ISPs), as part of their end-to-end Internet service, although ADSL may also be ordered by businesses, IXCs or CLEC customers also providing Internet access.⁸ Functionally, any end user of a customer subscribing to GTE's ADSL service would have one dedicated path to the ISP for Internet service. GTE's ADSL offering is thus an interstate service that provides a high-speed access connection between an end user and the Internet by utilizing a combination of the end user's existing local exchange physical plant (*i.e.* copper facility),⁹ specialized ADSL equipment and transport to the frame relay switch where the ISP connects to GTE's network.¹⁰

(...Continued)

16.6(E) of the tariff), not necessarily the customer itself.

⁸ For ease of reference, since these customers provide Internet access, they are collectively referred to as "ISPs." The Commission should note that since ADSL service cannot be subject to user restrictions, it is possible that any end user (*e.g.*, a residential subscriber) could theoretically order the service – just as a residential subscriber might theoretically order any other service from the federal access tariff. However, such an end user would still have to connect the service through an ISP to the Internet, or it would have connectivity to nowhere. In this vein, based on the discount structure proposed for the service, it will generally be most economical for residential end users to obtain ADSL from their ISPs.

⁹ GTE will also provide for interconnection to ADSL via a DS-1 or DS-3 service.

¹⁰ The configuration of GTE's ADSL service in this manner distinguishes it from several similar services offered on an *intrastate* basis by Bell Operating Companies which are designed as end user – rather than ISP – services. In addition, were GTE approached by a potential customer desiring ADSL with *no* Internet connectivity – *i.e.*, a truly intrastate service – GTE would treat this potential customer on an individual case basis under state regulation. Such a customer, by definition, would not meet the ten percent rule and therefore service would not be provided pursuant to the instant interstate tariff.

From the end user's point of view, "surfing the web" via ADSL begins by turning on the computer and clicking on the icon for the ISP service to make use of the "nailed up" path and bandwidth that is always present via ADSL technology. With dedicated access, the end user does not need to dial the ISP. This allows the end user to communicate with the ISP's local point of presence, which is often, but not always, located in the same local calling area as the end user. The communication then travels from the ISP's point of presence (POP) to its web server. The ISP web server checks the end user's password and billing information and then passes the communication to the Internet backbone and eventually to the designated web site destinations throughout the Internet. The end user continues the process by clicking on different icons or typing in various Internet "addresses." The end user can send and receive information to and from different web sites in this manner. On the other end of the communication, the ISP or a web site owner's ISP utilizes communications facilities, again typically ISDN, private lines or ADSL, provided by carriers, from their host servers to the Internet backbone. Exhibit A shows how this end-to-end communication is carried out. The entire process is continuous; information is sent to and from the end user's computer terminal according to the TC/IP protocols to make the most efficient use of the available facilities.

As set forth in more detail in prior pleadings,¹¹ this new offering affords significant pro-competitive benefits to the public. Congress has expressly directed the

¹¹ *GTE Telephone Operating Companies Tariff FCC No. 1, Transmittal No. 1148, Reply of GTE at 2-6 (May 28, 1998); Petition of the Association for Local Telecommunications Services for a Declaratory Ruling Establishing Conditions Necessary to Promote*

(Continued...)

Commission "to promote the continued development of the Internet"¹² and the deployment of advanced telecommunications services. First, GTE's ADSL service promises to bring the Internet to the public in a more efficient manner. As America Online has recognized, xDSL services offer the "potential to enhance and improve the increasing flow of data traffic."¹³ The DSL service offering enables the simultaneous transmission of voice dialed calls and high speed data traffic over a single transmission path.¹⁴ Second, GTE's ADSL offering will increase consumer choice in the high-speed Internet market, where cable television companies and wireless service providers are currently the leading providers. There is ample consumer demand for new and innovative alternatives that provide high speed, quick response, and brief wait times when accessing the Internet. Third, GTE's new tariff offering will also further the public interest by fostering more investment in advanced technologies. Approval of GTE's

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Deployment of Advanced Telecommunications Capability Under Section 706, CC Docket No. 98-78, Opposition of GTE at 11-14 (June 18, 1998).

¹² 47 U.S.C. § 230(b)(1); GTE's ADSL offering is also consistent with Chairman's Kennard goal to "make sure that new advanced services can become pipelines of opportunity". Remarks by William E. Kennard, USTA's Inside Washington Telecom (Apr. 27, 1998).

¹³ *GTE Telephone Operating Companies GTOC Tariff FCC No. 1, Transmittal No. 1148, Petition of America Online, Inc. at 2 (May 22, 1998).* Moreover, AOL "fully and enthusiastically supports the rapid, efficient deployment of DSL and other emerging broadband, data-friendly services that hold the potential to improve the delivery of Internet and online services and help bring the benefits of the Internet and online services to the American people." *Id.* at 7.

¹⁴ Of course, an end user will still need to purchase standard residential or business service.

tariff will send a message to the industry and encourage other carriers to develop new and innovative options for consumers. In sum, ADSL services will generate substantial public interest benefits.

ARGUMENT

I. ADSL-Dedicated Service Must Be Analyzed on an End-to-End Basis.

The jurisdictional question posed by the Commission in this proceeding is a narrow one: “whether GTE’s DSL service offering constitutes an interstate access service.” Contrary to the positions of a number of commenting parties,¹⁵ whether a CLEC which receives “dial up” Internet access traffic from an ILEC customer is entitled to reciprocal compensation for terminating traffic from the ILEC need not be decided here.¹⁶

As presented by GTE’s tariff, ADSL is inherently an interstate service because it is designed to be used to communicate with parties outside the end user’s home state via e-mail, access remote databases, and interaction with Internet web sites throughout the country and the world. Nonetheless, some have argued that in the case of ADSL-provided service, the ISP should be viewed as the termination point of a first call, which is then followed by a separate second interstate communication with the Internet.

¹⁵ See, e.g. Petition of The Assoc. for Local Telecommunications Services, at 7-9 (May 22, 1998); Petition of the Commercial Internet Exchange Assoc., at 4-5 (May 22, 1998); Petition of the California Cable Television Assoc., at 4-6 (May 22, 1998); Petition of e*spire Communications, Inc., at 2 (May 22, 1998).

¹⁶ Of course, the Commission’s jurisdictional analysis here may provide guidance in future cases addressing related issues.

However, efforts to segregate arbitrarily the ADSL “portion” of the communication from the overall interstate or international communication is nothing more than a late 1990’s version of the long-discredited theory that regulation should be based on the physical location of the equipment rather than the complete end-to-end transmission.

A. Long-standing Federal Court Precedent Requires an Examination of the Totality of the Communication

It has been well established that “the nature of the communication itself rather than the physical location of the technology” determines the jurisdictional classification of a service.¹⁷ Indeed, “[e]very court that has considered the matter. . . has held that the physically intrastate location of [a] service does not preclude FCC jurisdiction so long as the service is used for the completion of interstate communications.”¹⁸

As long ago as 1944, a federal district court, in a decision affirmed by the Supreme Court, rejected the contention that a single interstate call could be chopped up between access to the local PBX and the ultimate long distance destination of the call, concluding that “the language of the statute and . . . judicial decision[s]” confirm

¹⁷ *Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corp.*, 7 FCC Rcd 1619, 1621 (1992)(quoting *New York Tel. Co. v. FCC*, 631 F.2d 1059, 1066 (2d Cir. 1980)) (“*MemoryCall*”); see also *Puerto Rico Tel. Co. v. FCC*, 553 F.2d 694, 699 (1st Cir. 1977); *MCI Communications Corp. v. AT&T*, 369 F. Supp. 1004, 1028-1029 (E.D. Pa. 1974), *vacated on other grounds*, 496 F.2d 214 (3d Cir. 1974).

¹⁸ See *NARUC v. FCC*, 746 F.2d 1492, 1499 (D.C. Cir. 1984)(“The dividing line between the regulatory jurisdictions of the FCC and states depends on ‘the nature of the communications which pass through the facilities [and not on] the physical location of the lines.’”(citations omitted)); *Id.* at 1498 (“[e]very court that has considered the matter has emphasized that the nature of the communications is determinative rather than the physical location of the facilities used.”).

“the Communications Act contemplates the regulation of interstate wire communication from its inception to its completion.”¹⁹

Thirty years ago the emerging cable industry argued that since the “common carrier lines used for CATV distribution service are located within the boundaries of a single state,” the entire service was intrastate and beyond the Commission’s jurisdiction.²⁰ The Commission, and subsequently the Court of Appeals in *General Telephone Company of California v. FCC*, rejected the cable industry’s efforts – similar to those made by GTE’s opponents here – to segment a portion of the transmission into an intrastate communication:

The controlling facts here are that the cable facilities furnished by the telephone companies are links in the *continuous transmission of the signals from the point of origin to the set of the viewer*, and the intelligence received by the viewer is essentially the same as that transmitted by the broadcaster. Irrespective of the location of its physical facilities, the common carrier which thus participates as a link in the relay of television signals is performing an interstate communications service.²¹

Likewise, in *Idaho Microwave, Inc. v. FCC*, the Court held that the Commission had authority to regulate microwave facilities located entirely in the state of Idaho:

¹⁹ *United States v. AT&T*, 57 F. Supp. 451, 453-5 (S.D.N.Y. 1944), *aff’d*, 325 U.S. 837 (1945) (rejecting hotel’s efforts to charge unregulated rates to hotel patrons for use of hotel employees, hotel operator, and resident PBX, as opposed to the federal tariff rate for interstate calls.).

²⁰ *General Tel. Co. of California v. FCC*, 413 F.2d 390, 397 (D.C. Cir. 1969), *cert. denied*, 396 U.S. 888.

²¹ *Id.* at 398 (quoting 13 FCC 2d at 455 (1968))(emphasis added).

The Burley [ID] facility is used as a link in the continuous transmission of television signals from Salt Lake City to Burley, Idaho; there is *no interruption in the flow of the signals, as it is practically instantaneous*. Thus, though Idaho Microwave's physical facilities are located within Idaho, it performs an interstate communication service when it takes part in the transmission of signals from Utah to Idaho.²²

Ultimately, the words of the *General Telephone* court are equally applicable to the ADSL-provided service here; “[t]he stream of communication is essentially uninterrupted and properly indivisible. To categorize [these] activities as intrastate would disregard the character” of the communication.²³ Here it is undisputed that ADSL does not in any way interrupt the flow of information between Internet destinations around the country and the world and individual customers; the total transmission is properly viewed as indivisible. To find otherwise would be to overturn fifty years of communications law rejecting efforts to segment communications into component piece parts.²⁴

²² *Idaho Microwave*, 352 F.2d 729, 732 (D.C. Cir. 1965) (emphasis added); see also *California Interstate Tel. Co. v. FCC*, 328 F.2d 556 (D.C. Cir. 1964)(broadcast signals within California used for relay to spacecraft were part of foreign commerce and subject to federal jurisdiction.)

²³ *General Telephone*, 413 F.2d at 400 (citation omitted).

²⁴ The interstate nature of Internet service is further confirmed by court decisions construing federal claims related to Internet use. Segregation of portions of these transactions by the FCC may serve to undermine other federal law holding that Internet service is an interstate activity. *United States v. Carroll*, 105 F.3d 740 (1st Cir. 1997), cert. denied, 117 S.Ct. 2424 (1997) (“Transmission of photographs by means of Internet is tantamount to moving photographs across state lines and, thus, constitutes transportation in interstate commerce” as required by federal child pornography statutes.); *United States v. Tucker*, 136 F.3d 763, 763-64 (11th Cir. 1998) (downloading sexually explicit photos over Internet supported interstate commerce requirement). If
(Continued...)

B. The Commission Has Consistently Rejected Efforts To Subdivide Communications Into Jurisdictional Fragments

Consistent with these precedents, the Commission itself has consistently held that communications cannot be fragmented into jurisdictionally distinct components. As set out above, the ISP is simply not the destination of the end user. Just as an interexchange carrier accepts the calling number and identifies the customer for billing purposes, the ISP takes its instructions from the end user. Similarly, an interstate 800 call using a calling card involves dialing a 1-800 number, entering calling card information, and then instructing the interexchange carrier to route a call to a designated destination. The Commission has rejected the notion that the initial 800 access call is an independent transaction. In *Southwestern Bell Telephone Company*, 3 FCC Rcd 2339, 2341 (1988), the Commission held that “[s]witching at the credit card switch is an intermediate step in a single end-to-end communication” and thus the jurisdictional nature of the call would be determined by the underlying communication, not the credit card validation call. Here the connection to the ISP is dedicated and acts similar to a “credit card switch” and therefore should be analyzed only as “an intermediate step in a single end-to-end communication.”²⁵

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the Commission were to adopt the two call approach for ADSL-provided services, it appears as if the placement of materials on the Internet may be construed as an intrastate activity between the publisher and the ISP. Under this analysis the entire interstate portion of the transaction would be conducted within the ISP.

²⁵ Nor does the conclusion change merely because some portion of the end-to-end communication may be stored locally via caching. “Caching’ is the Internet practice of storing partial or complete duplicates of materials from frequently accessed sites to

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The Commission also rejected the dual transmission analysis in *Memory Call* where it concluded that BellSouth's voice mail service could not be divided into "two jurisdictional transactions:" "one from the caller to the telephone company switch that routes the call to the intended recipient's location, which is interstate, and another from the switch forwarding the call to the voice mail apparatus and service, which is purely intrastate."²⁶ The FCC explicitly rejected the two call argument and held that:

when a caller is connected to BellSouth's voice mail service, receives instructions and/or a message, and records a message, there is a continuous two-way transmission path from the caller location to the voice mail service. When the caller is out-of-state, there is a continuous path of communications across state lines between the caller and the voice mail service, just as there is when a traditional out-of-state long distance voice telephone call is forwarded by the local switch to another location in the state and answered. . . .²⁷

The Commission found that the Communications Act "contradicts the narrow reading of our jurisdiction urged by the states [who had argued for the two-call theory] that would artificially terminate our jurisdiction at the local switch and ignore the

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avoid repeatedly requesting copies from the original server. The recipient has no means of distinguishing between the cached materials and the original," which may be located anywhere around the world. *American Libraries Assoc. v. Pataki*, 969 F. Supp. 160, 171 (S.D.N.Y. 1997). The possible caching of some information – the identity of which changes continuously and is unknown to the customer – cannot sustain the contention that ADSL-provided service is intrastate. Obviously the overwhelming wealth of information contained on the Internet could not even begin to be comprehensively cached locally.

²⁶ *Memory Call*, 7 FCC Rcd at 1620.

²⁷ *Id.*

'forwarding and delivery of [the] communications' to the 'instrumentalities, facilities, apparatus and services' that comprise BellSouth's voice mail service."²⁸ Also in *Memory Call*, the voice mail service was clearly an enhanced service, while the initial connection could be characterized as a telecommunications service. These service distinctions also did not serve to change the nature of the "one continuous path of communication."²⁹ Thus ADSL service cannot be subdivided based on the idea that different types of services are provided at different stages of the transmission. Here, there is no basis for the Commission to sanction the "artificial terminat[ion]" of its jurisdiction at the ISP. Just as in *Memory Call*, efforts to regulate ADSL-provided service at the state level would "ignore the 'forwarding and delivery of [the] communications' to the 'instrumentalities, facilities, apparatus and services'" that comprise the Internet. The fact that Internet calls over ADSL are routed through a local ISP node or an ISP server located in the same state, or even the same telephone exchange, is as legally insignificant as the fact that voice mail calls were routed through a local switch in *MemoryCall*.³⁰

²⁸ *Id.* at 1621.

²⁹ See also *Idaho Microwave, Inc. v. FCC*, 352 F.2d 729, 732 (D.C. Cir. 1965)(microwave facilities in state, broadcast signals interstate); *California Interstate Tel. Co. v. FCC*, 328 F.2d 556 (D.C. Cir. 1964)(broadcast transmission in state and satellite used for interstate); *General Tel. Co. of California v. FCC*, 413 F.2d 390, 396 (D.C. Cir. 1969)(Common carrier lines located in state; broadcast services interstate).

³⁰ The Commission has acknowledged that an ISP is merely a conduit on the end users communication with Internet destinations. "An end-user may obtain access to the Internet from an Internet service provider, by using dial-up or dedicated access to connect to the Internet service provider's processor. The Internet service provider, in turn, connects the end user to an Internet backbone provider that carries traffic to and
(Continued...)

Again, in assessing the propriety of CCL charges on interstate 800 services, the Commission rejected the two-call theory.³¹ The Commission emphasized that the:

services convey a single communication from the caller to the called party. Indeed, from the caller's point of view, any intermediate switching during the call is transparent. The record reflects that the user of the . . . services intends to make a single call terminating not at a[n] . . . intermediate switch, where the 800 leg of the call's journey ends, but at the telephone line of the called party.³²

ADSL services also "convey a single communication from the caller" to the Internet. "Indeed, from the caller's point of view, any intermediate [transport] during the call is transparent." Here, too, the record reflects that the user of ADSL services intends to make a single call terminating not at the ISP where the allegedly local leg of the call's journey ends, but at the Internet site of the called party. Thus decades of Commission

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from other Internet host sites." *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934*, 11 FCC Rcd 21905, 21967 n.291 (1996).

³¹ *Long Distance/USA, Inc. v. Bell Tel. Co. of Pa.*, 10 FCC Rcd 1634, 1636-37 (1995).

³² *Id.* at 1638; ("[B]oth court and Commission decisions have considered the end-to-end nature of the communications more significant than the facilities used to complete such communications."); see also *id.* at 1637-38 ("[A] single interstate communication does not become two communications because it passes through intermediate switching facilities."); see also *Teleconnect Co. v. Bell Tel. Of Pa.*, 10 FCC Rcd 1626, 1629-30 (1995), *aff'd sub nom.*, *Southwestern Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C. Cir. 1997). This end-to-end jurisdictional analysis has been deployed in a variety of circumstances. For example, the Commission has evaluated the ultimate destination of a communication even when the access was obtained by dialing a local Feature Group A number. See also, e.g. *Determination of Interstate and Intrastate Usage of Feature Group A and Feature Group B Access Service*, 4 FCC Rcd 8448 (1989).

and court precedent require an end-to-end analysis of the Internet service provided over ADSL.³³

II. An End-to-End Analysis of the Service Provided By ADSL Mandates Interstate Treatment Under the Inseparability Doctrine

The nature of the traffic that is transmitted over GTE's ADSL service is interstate and therefore subject to federal tariffing requirements under the inseparability doctrine. Two factors mandate this result: (1) Internet traffic involves multiple parties throughout the nation and around the world, sometimes simultaneously, rendering traditional jurisdictional measures meaningless, and (2) it is not technologically possible to segregate and measure Internet traffic based on the geographic location of the parties. In light of the inseparability of ADSL-provided Internet traffic, the Commission is required to regulate ADSL service at the federal level. Even if application of the inseparability doctrine were less clear, ADSL is analogous to special access services and should therefore be federally regulated because it transmits greater than ten percent of its communications across state lines.

The overwhelming weight of authority confirms that, at a minimum, a large proportion of Internet traffic over ADSL is interstate in nature. The Internet is a "global medium of communications" that "links people, institutions, corporations, and

³³ There is also no basis for the idea that the end user's call "terminates" at the ISP. The Commission has repeatedly decided that an initial local call that is the first step in an interstate communication simply does not "terminate" the communication for jurisdictional purposes. See *Southwestern Bell Tel. Co.*, 3 FCC Rcd 2339, 2341 (1988); *Long Distance/USA, Inc. v. Bell Tel. Co. of Pa.*, 10 FCC Rcd 1634, 1636-37 (1995); *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682, 868-870 (1983).

governments around the world."³⁴ The Telecommunications Act itself defines the Internet as "the international computer network of both Federal and non-Federal interoperable packet switched data networks."³⁵ Because the Internet is such an expansive "international system,"³⁶ a single Internet session over ADSL "may connect the user to information both across the street and on the other side of the world."³⁷

The Commission's Office of Plans and Policy has acknowledged that Internet traffic "has no built-in jurisdictional divisions."³⁸ This is due, in large part, to the fact that an individual Internet session usually does not have a single destination:

[B]ecause the Internet is a dynamically routed, packet-switched network, only the origination point of an Internet connection can be identified with clarity. Users generally do not open Internet connections to "call" a discrete recipient, but access various Internet sites during the course of a single connection.³⁹

Thus, one Internet call may be intrastate, interstate, *and* international. But not only can an Internet session involve multiple sequential sites, the sites may also be accessed

³⁴ *ACLU v. Reno*, 929 F. Supp. 824, 830-49 (E.D. Pa. 1996), *aff'd*, 117 S.Ct. 2329 (1997). Even a cursory investigation reveals that the overwhelming majority of Internet traffic is interstate. See, e.g., *Internet Geography*, <<http://www.internet.org>> (setting forth the vast national geographic distribution of Internet domains). In addition, Exhibit B is a chart of the geographic location of the top 60 Internet sites demonstrating how widely dispersed these sites are.

³⁵ 47 U.S.C. § 230.

³⁶ *ACLU*, 929 F. Supp. at 831.

³⁷ Kevin Werbach, *Digital Tornado: The Internet and Telecommunications Policy*, OPP Working Paper No. 29, at 45 (Mar. 1997) ("*Digital Tornado*").

³⁸ *Id.*

³⁹ *Id.*

simultaneously. For example, an ADSL end user in Missouri may log onto the Internet to find out about the new Lewis and Clark Expedition exhibit at the City Museum. The Museum site in turn may have a hyperlink to the Washington State Historical Society to gather more information about the expedition. The subscriber then learns that the Historical Society has subsequent links to sites in Japan and Australia detailing exploration throughout the Pacific Rim. Thus even a single Internet communication cannot be definitively categorized as local, interstate or international.

Even if the Commission were determined to sort out the jurisdictional nature of each Internet communication, the traffic carried over an Internet access arrangement cannot be jurisdictionally identified as a technical matter:⁴⁰

Internet routers have also not been designed to record sufficient data about packets to support jurisdictional segregation of traffic.⁴¹

Absent the ability to segregate this Internet traffic,⁴² there is no basis for a broad finding that a dedicated access service carrying this traffic – such as an ADSL offering – is anything but an interstate service.⁴³

⁴⁰ In some ways, this situation is similar to the “leaky PBX” phenomenon, whereby interstate traffic from the local PBX cannot be specifically identified but is nonetheless subject to access charges because of the technical inability to segregate these calls. *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682, 868-70 (1983). The Commission has termed this decision a “pragmatic accommodation to measurement difficulties.” *Amendments of Part 69 of the Commission’s Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture*, 4 FCC Rcd 3983, 3989 (1989).

⁴¹ *Digital Tornado* at 45.

⁴² Obviously, where such traffic is severable, allocations between the state and federal jurisdictions may be performed. See, e.g., *Determination of Interstate and Intrastate*

(Continued...)

The Commission has long held that where it is technically impossible or impractical to segregate services between inter- and intra-state, federal regulation is appropriate.⁴⁴ Under the “inseparability doctrine,” states “must stand aside when, as here, it is technically and practicably impossible to separate the two types of communications [interstate and intrastate] for tariff purposes.”⁴⁵ In evaluating a national paging service that, like ADSL, was “predominantly [an] interstate service, which may also address intrastate demands,” the Commission determined that federal regulation should apply.⁴⁶ Numerous Commission and Court cases have reached similar conclusions.⁴⁷ In satisfying the “inseparability doctrine,” the Commission must show that state regulation over intrastate service would thwart or impede the

(...Continued)

Usage of Feature Group A and Feature Group B Access Service, 4 FCC Rcd 8448 (1989).

⁴³ Even if some Internet traffic is intrastate, that determination does not undermine the propriety of a federal tariff. The interstate traffic alone would justify a federal tariff.

⁴⁴ *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 375 n.4 (1986); see also *California v. FCC*, 39 F.3d 919, 931-33 (9th Cir. 1994), *cert. denied*, 514 U.S. 1050 (1995); *Pub. Util. Comm’n of Texas v. FCC*, 886 F.2d 1325, 1331-34 (D.C. Cir. 1989).

⁴⁵ *Amendments of Part 2 and 22 of the Commission’s Rules*, 93 FCC 2d 908, 922 (1983), *aff’d mem.*, *NARUC v. FCC*, 725 F.2d 125 (D.C. Cir. 1984).

⁴⁶ *Mobile Telecommunications Technologies Corp.*, 6 FCC Rcd 1938, 1939 (CCB 1991), *aff’d*, 7 FCC Rcd 4061 (1992).

⁴⁷ See also *Computer and Communications Industry Assoc. v. FCC*, 693 F.2d 198, 215 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983); *North Carolina Utilities Comm’n v. FCC*, 537 F.2d 787 (4th Cir. 1976), *cert. denied*, 429 U.S. 1027 (1976); *North Carolina Utilities Comm’n v. FCC*, 552 F.2d 1036 (4th Cir. 1977), *cert. denied*, 434 U.S. 874 (1977).

Commission's exercise of its lawful authority over interstate communications services.⁴⁸ Here it is clear that patchwork regulation of that small portion of all Internet traffic that, by happenstance, turns out to be intrastate would greatly inhibit the goals established by Congress and the Commission. Indeed, permitting fragmented regulation is fundamentally antithetical to the dynamic and seamless development of the Internet. Federal jurisdiction is therefore both necessary and appropriate.

Even if the law on the inseparability doctrine were less clear, GTE's ADSL service – as a dedicated access offering – warrants federal regulation because ADSL's interstate traffic vastly exceeds the ten percent threshold set for interstate regulation of analogous special access services.⁴⁹ In adopting the Joint Board's recommendation for a ten percent *de minimis* threshold for federal regulation of mixed use special access lines, the Commission acknowledged that as a result of its decision “some intrastate traffic may be carried over federally assigned and tariffed special access lines and some interstate traffic may be carried over state assigned and tariffed special access lines.”⁵⁰ Thus, the minimal intrastate traffic that may be carried by ADSL does not warrant a departure from this federal tariffing principle. As discussed above, there is

⁴⁸ *Public Util. Comm'n of Texas v. FCC*, 886 F.2d 1325 (D.C. Cir. 1989); *NARUC v. FCC*, 880 F.2d 422 (D.C. Cir. 1989); *Illinois Bell Tel. Co. v. FCC*, 883 F.2d 104 (D.C. Cir. 1989); *California v. FCC*, 905 F.2d 1217 (9th Cir. 1990).

⁴⁹ “Mixed use special access lines” are defined as “special access lines (including WATS access lines) carrying both state and interstate traffic.” *MTS and WATS Market Structure*, Decision and Order, 4 FCC Rcd 5660, 5661 n.1 (1989); see also *id.* at 5660 (setting ten percent threshold).

⁵⁰ *Id.*

little doubt that ADSL will be handling more than the *de minimis* level of interstate calls required for analogous services to be federally tariffed.

III. Federal Jurisdiction is Consistent with the Commission's Internet Precedent.

The Commission repeatedly has classified Internet traffic as predominately interstate, since its first order creating the ESP exemption and continuing through the present – reiterating the conclusion most recently in its Report to Congress on Universal Service. Interstate tariffing of ADSL-provided service is consistent with these prior regulatory pronouncements.

More than fifteen years ago, in the *MTS and WATS Market Structure* order, the Commission found that ESPs use “local exchange services or facilities . . . for the purpose of completing interstate calls” and “exchange service for jurisdictionally interstate communications.”⁵¹ Four years later, in amending Part 69 of its Rules, the Commission observed that ESPs “use the local network to provide interstate services.”⁵² After passage of the 1996 Act, the Commission continued to recognize the role of ESPs in interstate communications, noting that “(ESPs) may use incumbent LEC facilities to originate and terminate interstate calls.”⁵³ Similarly the Universal Service Report to Congress acknowledged that ESPs use “local exchange networks to originate and

⁵¹ *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682, 711-15 (1983).

⁵² *Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 2 FCC Rcd 4305, 4306 (1987).

⁵³ *In re Access Charge Reform*, 11 FCC Rcd 21354, 21478 (1996).

terminate interstate services.”⁵⁴ The Report also noted that “[t]he provision of leased [access] lines to Internet service providers. . . constitutes the provision of interstate communications” and “entities providing pure transmission capacity to Internet access or backbone providers provide interstate ‘telecommunications.’”⁵⁵

The FCC's so-called ESP (or ISP) access exemption confirms this analysis. In maintaining the exception, the Commission reiterated the common understanding that Internet traffic is interstate; “[i]n recent years, usage of *interstate* information services, and in particular the Internet and other interactive computer networks, has increased significantly.”⁵⁶ The Commission nonetheless concluded that, “although information service providers (ISPs) may use incumbent LEC facilities to originate and terminate *interstate* calls, ISPs should not be required to pay interstate access charges.”⁵⁷ The continued exemption was designed to prevent the “disrupt[ion] [of] the still-evolving information services industry.”⁵⁸ Thus, the exemption was based on economic policy factors, and not any suggestion that the traffic is “local” rather than “interstate.” Indeed, no such “exemption” would be necessary if the traffic were not jurisdictionally interstate.

⁵⁴ *Federal-State Joint Board on Universal Service*, Report to Congress, CC Docket No. 96-45, at 52 (April 10, 1998).

⁵⁵ *Id.* at 28, 33.

⁵⁶ *First Report and Order Concerning Access Charge Reform*, CC Docket No. 96-262, at 154 (rel. May 16, 1997) (emphasis added).

⁵⁷ *Id.* at 153-54(emphasis added).

⁵⁸ *Id.* at 155.