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

In the Matter of	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-78, 98-91

ORDER ON REMAND

Adopted: December 23, 1999 **Released: December 23, 1999**

By the Commission: Commissioner Furchtgott-Roth approving in part, dissenting in part and issuing a statement.

I. INTRODUCTION AND OVERVIEW

1. Among the fundamental goals of the Telecommunications Act of 1996 (1996 Act)[1] is the promotion of innovation, investment and competition among all participants and for all services in the telecommunications marketplace, including advanced services.[2] The Commission has issued three orders in this proceeding to date and most recently took an additional step toward implementing Congress's goals for the deployment of competitive advanced services by instituting line sharing obligations for incumbent LECs pursuant to section 251, and establishing spectrum management policies

[1] Telecommunications Act of 1996, Pub. L. 104-104, Feb, 8, 1996, 110 Stat. 56, codified at 47 U.S.C. § 151 et seq. (1996 Act). The 1996 Act amended the Communications Act of 1934. We refer to the Communications Act of 1934, as amended as the "Communications Act" or "the Act."

[2] Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong. 2d Sess. 1 (1996) *(Joint Explanatory Statement)*. For purposes of this order, we use the term "advanced services" to mean high speed, switched, broadband, wireline telecommunications capability that enables users to originate and receive high-quality voice, data, graphics and video telecommunications. The term "broadband" is generally used to convey sufficient capacity – or bandwidth – to transport large amounts of information. As technology evolves, the concept of "broadband" will evolve with it: we may consider today's "broadband" services to be "narrowband" services when tomorrow's technologies appear.

and rules.[3]

2. Central to Congress' goal of widespread deployment of advanced services is section 251 of the 1996 Act. Congress made clear that the 1996 Act is technologically neutral and is designed to ensure competition in all telecommunications markets.[4] In the *Advanced Services Memorandum Opinion and Order*, we determined, among other things, that incumbent LECs were subject to the obligations imposed by section 251 in connection with the offering of advanced services that employ packet-switching or other specific technologies such as digital subscriber line (xDSL) technologies.[5] At that time, we found that xDSL-based advanced services were "either" telephone exchange service or exchange access service.[6] Following adoption of the *Advanced Services Memorandum Opinion and Order*, US WEST Communications, Inc., (US WEST) sought review in the United States Court of Appeals for the District of Columbia Circuit, seeking reversal of the Commission's holding that advanced services are either telephone exchange service or exchange access.

3. Upon review of the record we determine that US WEST may not avoid the obligations placed on incumbent LECs under section 251(c) of the Act in connection with the provision of advanced services. We also affirm our initial view in the *Advanced Services Memorandum Opinion and Order* that xDSL-based advanced services are either telephone exchange service or exchange access. We clarify that whether xDSL-based advanced services constitute telephone exchange service or exchange access depends on how such technology is used. We find that when xDSL-based advanced services both originate and terminate "within a telephone exchange," and provide subscribers with the capability of communicating with other subscribers in that same exchange, they are properly classified as "telephone exchange service." We also find that xDSL-based advanced services constitute "exchange access" when they provide subscribers with the ability to communicate across exchange boundaries. We find that "information access service" is not a category separate and distinct from telephone exchange service and exchange access. Therefore, even if xDSL-based advanced services are considered "information access services," this does not remove them from the classifications of

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[3] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24012 (1998) *(Advanced Services Memorandum Opinion and Order); Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 (1999) (*Advanced Services First Report and Order and FNPRM*); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Report and Order, FCC 99-330 (rel. Nov. 9, 1999) (*Advanced Services Second Report and Order*); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Third Report and Order, FCC 99-355 (rel. December 9, 1999) (*Advanced Services Third Report and Order*).

[4] *See Advanced Services Memorandum Opinion and Order,* 13 FCC Rcd at 24017, ¶ 11.

[5] *Id.* at 24035-36, ¶ 50.

[6] *Id.* at 24032, ¶40.

telephone exchange service and exchange access.

4. In the *Advanced Services Memorandum Opinion and Order*, we determined, among other things, that incumbent LECs were subject to the obligations imposed by section 251 in connection with the offering of advanced services that employ packet-switching or other specific technologies such as digital subscriber line (xDSL) technologies.[7] At that time, we found that xDSL-based advanced services were "either" telephone exchange service or exchange access service.[8] We found it unnecessary at the time to determine into which of the two service categories the advanced services fell, noting that related issues were pending in other proceedings.[9]

5. In response, the Commission requested the opportunity to consider further the issues raised by US WEST because some of the statutory construction arguments advanced by US WEST in its appellate brief had been presented only summarily and in truncated form before the Commission. The Commission asked that the court grant it the opportunity to address the threshold question of statutory interpretation based on a more complete administrative record. On August 25, 1999, the court granted the Commission's request and remanded the matter back to the Commission.[10] Consequently, on September 9, 1999 the Common Carrier Bureau issued a *Public Notice* seeking comment on the issues raised by US WEST.[11]

6. In response to this *Public Notice*, nineteen comments and twenty replies were filed.[12] The majority of the commenters maintain that the Commission should affirm its holding that xDSL-based advanced services are either telephone exchange service or exchange access.[13] Some commenters maintain, however, that xDSL-based advanced services are telephone exchange service, but not exchange access.[14] Others

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[7] *See Advanced Services Memorandum Opinion and Order*, 13 FCC Rcd 24011, 24035-36 (1998).

[8] *Id.* at 24032, ¶40.

[9] *Id.*

[10] *See US WEST Communications, Inc. v. Federal Communications Commission*, No. 98-1410 (D.C. Cir. Aug. 25, 1999) (order granting motion for remand).

[11] Public Notice: Comments Requested in Connection with Court Remand of August 1998 Advanced Services Order, DA 9901853, released September 9, 1999. The Public Notice listed a number of issues and asked for comment to "aid the Commission in meeting its commitment to the court to consider an address within 120 days the issues raised by US WEST."

[12] Attached as Appendix A is a list of the parties filing comments and replies in this proceeding.

[13] AT&T Comments at 5; CDS Comments at 3-4; Prism Comments at 9; RCN Comments at 2; Sprint Comments at 4-5; Joint CLEC Comments at 10, 19; MGC Comments at 5-6; Williams Reply Comments at 4.

[14] CDS Comments at 2; Focal et. al. Comments at 2; GSA Comments at 3; MCI Comments at 12; MindSpring Comments at 3; RCN Telecom/Connect Comments at 2; TRA Comments at 12; Wisconsin

maintain that such services fall within the definition of exchange access, but not telephone exchange service.[15] A few commenters argue that xDSL-based advanced services are neither telephone exchange service or exchange access, but are more properly classified as "information access" services.[16]

II. US WEST is an Incumbent LEC and May Not Avoid Section 251 Obligations When Providing Advanced Services

7. Sections 251(a) and 251(b) of the Communications Act impose on all LECs certain duties regarding interconnection, resale of telecommunications services, number portability, dialing parity, access to rights-of-way, and reciprocal compensation.[17] Section 251(c) requires incumbent LECs to meet certain additional obligations to potential competitors with respect to interconnection, access to unbundled network elements, resale of their retail services, notification of interoperability changes to their facilities or networks, collocation, and good faith negotiation.[18]

8. US West and other commenters make several arguments in support of the contention that xDSL based advanced services are not subject to the unbundling obligations under section 251(c)(3). US West argues that when a LEC is providing something other than telephone exchange service or exchange access (or network elements used to provide such services), it is not acting as a LEC and therefore is not subject to the obligations of section 251(c)(3). In addition, US WEST argues that if we require access to network elements on an unbundled basis for the provision of advanced services, that could result in unlimited access to all of an incumbent LEC's facilities.[19] None of these arguments has merit. For the reasons set forth below, we conclude that section 251(c)(3) requires incumbent LECs (as defined in section 251(h)) to provide nondiscriminatory access to network elements used to provide all telecommunications services, including advanced services.

9. At the outset, we affirm our prior conclusion that xDSL-based advanced services constitute telecommunications services as defined by section 3(46) of the Act.[20] Although US WEST has argued that these services are neither exchange access nor

PSC Comments at 3-5.

[15] NorthPoint Comments at 7; Rhythms Comments at 19.

[16] US WEST Comments at 4; SBC Comments at 8; GTE Comments at 8-11; Covad Comments at 7; USTA Reply Comments at 4.

[17] *See* 47 U.S.C. §§ 251(a), 251(b). The interconnection obligation contained in section 251(a) applies to all telecommunications carriers, including LECs. The obligations of section 251(b) apply only to LECs.

[18] *See* 47 U.S.C. § 251(c).

[19] US WEST Reply Comments at 8-9

[20] *See Advanced Services Memorandum Opinion and Order*, 13 FCC Rcd 24012 at ¶¶ 35-36.

telephone exchange services,[21] even US WEST has expressly conceded that advanced services fall within the broad ambit of telecommunications services. In its comments, US WEST has stated that "a telephone company's obligation to provide access to unbundled elements is not dependent on the requester's provision of telephone exchange service or exchange access; rather, unbundled elements must be made available to providers of any telecommunications service, *including advanced services*."[22] Although US WEST has acknowledged that advanced services constitute a type of telecommunications service, US WEST nonetheless argues that the requirements of section 251(c) (3) are not triggered when a carrier provides access to network elements used solely for the provision of advanced services.[23] It contends that when an entity that is otherwise an incumbent LEC is providing something other than telephone exchange service or exchange access service (or network elements used to provide such services), it is not acting as an incumbent LEC and therefore is not subject to the obligations of section 251(c)(3).[24] We reject that assertion.

10. We find no support for US WEST's position in the language of section 251. Nor has US WEST shown how the purposes of the section or the Act would be furthered by making section 251(h) subject to further constraints.[25] Congress has specifically defined an incumbent LEC for purposes of section 251. Pursuant to section 251(h), an incumbent local exchange carrier for any area means the local exchange carrier that "(A) on the date of enactment of the Telecommunications Act of 1996, provided telephone exchange service in such area" and (B) was a member of NECA, the exchange carrier association under section 69.601(b) of the Commission's regulations, or a successor or assign of such a member. Thus, the relevant inquiry for purposes of determining who is an incumbent LEC pursuant to section 251(c) is whether a carrier provided telephone exchange and exchange access service in a given service area on February 8, 1996. There can be no dispute that US WEST provided both telephone exchange and exchange access service on that date. US WEST thus satisfies the statutory definition in section 251(h) and is an incumbent LEC for purposes of section 251. Therefore, because advanced services are telecommunications services, an incumbent LEC (as defined in section 251(h)) must provide nondiscriminatory access to network elements used to provide xDSL-based advanced services consistent with the requirements of section 251(c)(3). We further agree with those commenters who argue that if Congress intended to remove xDSL-based advanced services from the reach of section 251(c), Congress would have done so in a more explicit fashion.[26] For example, in section

[21] *See* ¶¶18-19 infra.

[22] US WEST Comments at 19 (emphasis added).

[23] US WEST Comments at 19.

[24] US WEST Comments at 6.

[25] *See* ¶ 19.

[26] *See* Joint CLEC Comments at 11.

251(c)(2) Congress provided that the interconnection obligations thereunder are triggered not for all telecommunications service, but only "for the transmission and routing of telephone exchange service and exchange access."[27]

11. In fact, as demonstrated by section 251, Congress elected to impose different and increasingly more rigorous obligations on "telecommunications carriers," "local exchange carriers," and "incumbent local exchange carriers." The statutory construction proferred by various incumbent LECs would effectively eliminate these distinctions. Congress used these statutory definitions as a means of assigning carriers to the appropriate section 251 "box," or of exempting them from section 251 entirely.[28] Once a carrier is classified as an incumbent LEC pursuant to section 251(h), the extent to which the individual duties established by the provisions of section 251(c) apply to its various services and facilities is determined by the specific provision in which the duty is set forth.[29] For example, because we determine below that xDSL-based advanced services are exchange access or telephone exchange services, incumbent LECs must provide requesting carriers with interconnection pursuant to section 251(c)(2). Pursuant to section 251(c)(3), incumbent LECs must unbundle facilities used to provide xDSL-based advanced services because these services constitute telecommunications services.

12. Moreover, neither US WEST, SBC, nor any other party has explained how exempting xDSL-based advanced services from section 251(c) would further the purposes of this section or the 1996 Act. We find no evidence that Congress intended to eliminate the Commission's authority to require access to network elements used to provide advanced services -- a result which is at odds with the technology neutral goals of the Act and with Congress' aim to encourage competition in all telecommunications markets.[30]

13. Finally, we reject US WEST's contention that if we consider a carrier to be an incumbent LEC under section 251 when it provides a service other than telephone exchange service or exchange access service, then such a reading of section 251 would inevitably require GTE and Sprint, acting in their capacity as incumbent LECs, to unbundle all their facilities, including their long distance facilities.[31] We find no merit to this contention because it ignores the limitations Congress has established in section 251(d)(2).

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[27] 47 U.S.C. § 251(c)(2).

[28] See Letter from Larry Irving, NTIA, to Chairman William E. Kennard at 7 n.22, CC Docket Nos. 98-91; 98-32, 98-26, 98-11 (filed July 11, 1998).

[29] *See* AT&T Comments at 5.

[30] *See* Federal State Joint Board on Universal Service, *Report and Order*, CC Docket No. 96-45; 12 FCC Rcd. 8776, 8802-8803 (noting the importance of competitive and technological neutrality to promote competition).

[31] US WEST Reply Comments at 8-9.

14. Section 251(d)(2) imposes a limitation on an incumbent LEC's unbundling obligation pursuant to section 251(c)(3). In a recent rulemaking proceeding, we set forth the standards the Commission will apply to determine which network elements should be unbundled.[32] With regard to non-proprietary elements, a requesting carrier typically may access unbundled network elements if the failure to provide such access would impair the ability of a requesting carrier to provide the services it seeks to offer. With regard to proprietary network elements, a requesting carrier typically may obtain unbundled access to an incumbent LEC's network element if such access is necessary. Pursuant to this standard, the Commission has declined to require incumbent LECs to provide unbundled access to their packet switches.[33] These standards provide ample protection that the unbundling obligations under section 251(c) are consistent with section 251's underlying goal of opening the local market to competition.

III. Statutory Classification of xDSL-Based Advanced Services

15. As noted above, certain obligations set forth in section 251 are specific to the provision of "telephone exchange service" or "exchange access." The primary distinction between these two services is that, while telephone exchange services permit communication "within a telephone exchange" or "within a connected system of telephone exchanges within the same exchange area,"[34] exchange access refers to access to telephone exchange services or facilities for the purpose of originating or terminating communications that travel outside an exchange.[35] Thus, in order to determine into which category xDSL-based services fall, we must determine, as a threshold matter, whether such traffic originates and terminates within the equivalent of an exchange area, in which case it may be classified as "telephone exchange service," or whether such traffic originates in one exchange and terminates in another, in which case it is properly classified as "exchange access."[36]

16. The Commission traditionally has determined the nature of communications by looking to the end points of the communication, and has consistently rejected attempts to divide communications at any intermediate points of switching or

[32] *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996;* Third Report and Order, CC Docket No. 96-98; FCC 99-238 at ¶ 49 (rel. November 5, 1999) (*Local Competition Third Report and Order*).

[33] *See Local Competition Third Report and Order*, at ¶ 306.

[34] 47 U.S.C. § 3(47)(A).

[35] 47 U.S.C. § 3(16).

[36] We note that our conclusion that whether advanced, packet-switched services constitute "telephone exchange service" or "exchange access" depends on the circumstances in which they are provided, is no different from the conclusion that circuit-switched services constitute either telephone exchange service or telephone toll service, depending upon the end points of the communication. *See* Joint CLEC Commenters Comments at 8.

exchanges between carriers.[37] With respect to xDSL-based advanced services used to connect Internet Service Providers (ISPs) with their dial-in subscribers, the Commission has determined that such traffic does not terminate at the ISP's local server, but instead terminates at Internet websites that are often located in other exchanges, states or even foreign countries.[38] Consistent with this determination, we conclude that typically ISP-bound traffic does not originate and terminate within an exchange and, therefore, does not constitute telephone exchange service within the meaning of the Act. As explained more fully below, such traffic is properly classified as "exchange access." In contrast, work-at-home applications and other non-Internet communications may be properly classified as "telephone exchange service" if they originate and terminate within a local exchange area.[39]

A. xDSL-Based Advanced Services May be Classified as Telephone Exchange Services

1. Background

17. We first address whether a service that employs xDSL technology may be classified as telephone exchange service within the meaning of the Act.[40] The 1996 Act provides two alternative definitions for the term "telephone exchange service."[41] The

[37] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, , Declaratory Ruling and Notice of Proposed Rulemaking, 14 FCC Rcd 3689, 3695-3696 at ¶10 (1999)("*Reciprocal Compensation Order*).

[38] In reaching this conclusion, the Commission acknowledged the difficulty of identifying a point of "termination" in the packet-switched network environment of the Internet. The Commission noted, for example, that, in a single Internet communication, an Internet user may access websites that reside on servers in various states or foreign countries, communicate directly with another Internet user, or chat on-line with a group of Internet users located either in the same local exchange or in another country. *Id.*

[39] As we noted in the *GTE ADSL Tariffing Order*, xDSL-based technology is used to support variety of applications that are potentially local in nature, such as certain "work-at-home" applications. In the *GTE ADSL Tariffing Order*, we noted that such "work-at-home" applications are "intrastate" and, therefore, should be tariffed at the state level. *GTE ADSL Tariffing Order* at ¶ 27.

[40] We note that xDSL itself is not a service. Rather, xDSL is a technology used to provide transmission services.

[41] A "telephone exchange service" is a type of "telecommunications service." *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15636 (1996) (*Local Competition Order*), motion for stay denied, 11 FCC Rcd 11754 (1996), Order on Reconsideration, 11 FCC Rcd 13042 (1996), Second Order on Reconsideration, 11 FCC Rcd 19738 (1996). The statutory definition of "telecommunications service" requires the offering of service "for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." 47 U.S.C. § 3(46). The Commission has previously stated that the phrase "for a fee" in section 3(46) of the Act "means services rendered in exchange for something of value or a monetary payment." *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, FCC 97-157, at ¶ 784 (rel. May 8, 1997), Erratum, CC Docket No. 96- 45, FCC 97-157 (rel. June 4, 1997).

first definition, which is codified in section 3(47)(A), provides that telephone exchange service includes "service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge."[42] The second definition, which is codified in section 3(47)(B), provides that the term also includes "comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service."[43] In the *Advanced Services Memorandum Opinion and Order*, we noted that section 3(47)(B) was added to ensure that the definition of telephone exchange service was not limited to traditional voice telephony, but included non-traditional "means of communicating information within a local area."[44]

18. U S WEST contends that prior decisions by the Commission establish that three characteristics must be present before a service may fall within the scope of the "telephone exchange service" definition. First, the service must begin and end "within a telephone exchange" or "within a connected system of telephone exchanges."[45] Second, the service must permit "intercommunication," which U S WEST describes as the ability of every subscriber to communicate with every other subscriber connected to switched network within a particular exchange area.[46] Third, the service must be covered by "the exchange service charge." U S WEST argues that xDSL-based services do not encompass any of the foregoing characteristics and, therefore, do not constitute telephone exchange services within the meaning of the Act.[47]

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[42] 47 U.S.C. § 153(47)(A). The United States Court of Appeals for the Fourth Circuit explains that "telephone exchange service" is a "statutory term of art ... [that] means service within a discrete local exchange system...." *North Carolina Util. Comm'n v. FCC*, 552 F.2d 1036, 1045 Cir.1976, *cert. denied*, 434 U.S. 874 (1977). The term "exchange service" generally refers to service within local calling areas which is covered by an exchange service charge, as distinct from "toll service" between exchanges for which there is a separate additional charge. *See In the Matter of Declaratory Ruling on the Application of Section 2(b)(2) of the Communications Act of 1934 to Bell Operating Companies*, CC Docket No. 85-197, FCC 87-53, Memorandum Opinion And Order, 2 FCC Rcd 1750, at ¶ 27 n.47.

[43] 47 U.S.C. § 153(47)(B).

[44] *Advanced Services Order* at ¶ 41 (citing Comments of Senators Stevens and Burns, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45 (*January 1998 Report to Congress*) (filed Jan. 26, 1998), at 2, n.1).

[45] U S WEST Brief at 19 (citing 47 U.S.C. § 153(47)(A).

[46] U S WEST Brief at 19-20 (citing *BellSouth Louisiana II Order*, 13 FCC Rcd. At 20622; *General Tel. Co. of Calif.*, 13 FCC Rcd. 448, 460 (1968); *Offshore Tel. Co.*, 3 FCC Rcd. 4137, 4142 (1988).

[47] U S WEST Brief at 19 (citing *GTE ADSL Order*, 13 FCC Rcd. At 22470-72; *Bell Atlantic Tel. Cos.*, 13 FCC Rcd. 23667, 23668 (1998)). U S WEST contends, for example, that DSL-based services do not originate and terminate within the equivalent of a local exchange area, but instead terminate at destinations located around the world. U S WEST further argues that, in contrast to traditional telephone exchange service, DSL-based services do not interconnect with the traditional circuit-switched network and,

19. U S WEST acknowledges that section 3(47)(B) may expand the range of services that constitute "telephone exchange service" within the meaning of the Act.[48] It argues, however, that the 1996 Amendment extends only to "those services that are functionally similar to and can substitute for the switched local services" described in section 3(47)(A).[49] According to U S WEST, support for this interpretation of section 3(47)(B) can be found in at least two prior Commission orders. It notes, for example, that the Commission previously has construed the term "comparable" as referring to: (1) services that could become "true economic substitutes for wireline local exchange service;"[50] and (2) the provision of local exchange service over alternative facilities, such as substitutes for the copper loop.[51]

2. Discussion

a) Section 3(47)(A)

20. We conclude that xDSL-based advanced services, when used to permit communications among subscribers within an exchange, or within a connected system of exchanges, constitute telephone exchange services within the meaning of section 3(47)(A) of the Act. U S WEST correctly notes that, in cases involving voice communication, the Commission has long interpreted the traditional telephone exchange definition to refer to "the provision of individual two-way voice communication by means of a central switching complex to interconnect all subscribers within a geographic area."[52] Contrary to U S WEST's contention, however, the Commission has never suggested that the telephone exchange service definition is limited to voice communications provided over the public circuit-switched network.

21. As we noted in the *Advanced Services Memorandum Opinion and Order*, neither the statutory language nor the legislative history accompanying section 3(47) limits the term "telephone exchange service" to the provision of voice services.[53] Moreover, we note that the local public switched network has been used for dial-up

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therefore, do not permit "ubiquitous local intercommunication." U S WEST Brief at 19-20. Finally, US WEST contends that DSL services are not covered by the exchange service charge. U S WEST Brief at 22.

[48] U S WEST Brief at 24.

[49] U S WEST Brief at 23-24.

[50] U S WEST Brief at 24 (citing *Local Competition Order*, 11 FCC Rcd. at 15999-16000).

[51] U S WEST Brief at 25 (citing Federal-State Joint Board on Universal Service, 13 FCC Rcd. 11501, 11528 (1998)).

[52] *Midwest Corp.*, 53 FCC.2d 294, 300 (1975); *Offshore Tel. Co. v. South Cent. Bell Tel. Co.*, 6 FCC Rcd. 2286, 2287 (1991); *Domestic Public Radio Svc.*, 76 FCC.2d 273, 281 (1980); *Application of BellSouth Corp. for Provision of In-Region, InterLATA Services in Louisiana*, 13 FCC Rcd. 20599, 20621 (1998).

[53] *Advanced Services Memorandum Opinion and Order*, 13 FCC Rcd at 24032, ¶ 41. *See also* Cable and Wireless Reply Comments at 5.

access to data transmission services for many years.[54] For example, whenever a facsimilie is sent from a home or office to another party within the local area, the transmission is a data transmission rather than a voice transmission, but such transmissions nevertheless constitute telephone exchange service. Consistent with this, the Commission has expressly made the rules governing basic telephone exchange service equally applicable to LEC provision of data and voice services.[55] The parties have not persuaded us that we should depart from this long-standing practice. Indeed, in this era of converging technologies, limiting the telephone exchange service definition to voice-based communications would undermine a central goal of the 1996 Act--opening local markets to competition to all telecommunications services. We thus conclude, consistent with past practice, that the term "telephone exchange service" encompasses voice and data services.

22. We further disagree with U S WEST that the statutory language or Commission precedent suggest that the term "telephone exchange service" is limited to services that employ circuit-switching technology. Although the definition of what constitutes an "exchange" traditionally has been linked to the area served by a switch, or by an interconnected system of switches,[56] the statutory language does not support a conclusion that only services that employ circuit-switching technology constitute telephone exchange service within the meaning of the Act.[57] Indeed, we have previously noted that the "[t]he concept of an exchange is based on geography and regulation, not equipment."[58] Thus, the interconnection obligations set forth in section 251(c)(2) apply to packet-switched services as well as circuit-switched services.

23. Although we reject the contention that the term telephone exchange service is limited to voice communications, we agree with U S WEST that the statutory text and Commission precedent support a conclusion that telephone exchange services

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[54] *See e.g.,* CoreComm Comments at 8.

[55] *In the Matter of International Business Machines Corp. Petition for Declaratory Ruling that Southern Bell Telephone and Telegraph Company Offer its Local Area Data Transport Service on an Unbundled and Detariffed Basis Pursuant to Section 64.702 of the Commission's Rules*, FCC 86-122, ENF 83-34, Memorandum Opinion and Order on Reconsideration (1986); *see also Advanced Services Order* at ¶ 47 (noting that the interconnection obligations set forth in section 251 apply equally to voice and data services). Some commenters point out that at least four state commissions have concluded that certain packet-switched services, such as frame-relay service, constitute "telephone exchange services," within the meaning of the Act. *See e.g.,* Joint CLEC Commenters Comments at 17-18.

[56] *See* U S WEST Brief at 7 (citing Harry Newton, NEWTON'S TELECOM DICTIONARY 301 (15th ed. 1999).

[57] We note that in the "pre-switching" era, plugs and cords, not circuit switches, were used to provide the original "telephone service, and this original telephone service actually established a "private line" between two parties. This was the typical arrangement in 1934, the year of the adoption of the original Communications Act.

[58] *BellSouth Louisiana II Order* at ¶ 30 & n.68 (citing H. Newton, NEWTON'S TELECOM DICTIONARY (1998) at 277.

must permit "intercommunication" among subscribers within the equivalent of a local exchange area.[59] The term "intercommunication" is not defined in the Act or the Commission's rules. Commission precedent establishes, however, that, as used in section 3(47)(A), "intercommunication" refers to a service that "permits a community of interconnected customers to make calls to one another over a switched network."[60] We, therefore, find that a service satisfies the "intercommunication" requirement of section 3(47)(A) as long as it provides customers with the capability of intercommunicating with other subscribers.

24. U S WEST contends that because an xDSL-based advanced service subscriber must specify the ISP or third party with whom his or her computer is connected, such services do not permit the type of "intercommunication" described in section 3(47)(A). We find, however, that U S WEST's narrow focus on the manner in which xDSL-based advanced services are provisioned is misplaced. In classifying a particular service the relevant inquiry is broader. We find that although a customer must designate the ISP or third party to whom his or her high-speed data transmissions are directed, once on the packet-switched network, a customer may rearrange the service to communicate with any other subscriber located on that network through the use of packet-switching technology. We thus conclude that xDSL-based services provide end-users with the type of intercommunicating capability envisioned by section 3(47)(A).

25. We further find the cases cited by U S WEST to support its contention that services offered over a predesignated transmission path do not constitute telephone exchange service to be readily distinguishable from the xDSL-based services we consider here. Indeed, the services at issue in each of those proceedings were offered over private lines.[61] Private line service is defined as "a service whereby facilities for

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[59] *See In the Matter of General Telephone Company Of California (formerly California Water and Telephone Company) The Associated Bell System Companies; The General Telephone System And United Utilities, Inc. Companies Applicability of Section 214 of the Communications Act with Regard to Tariffs for ChannelService for Use by Community Antenna Television Systems,* Docket No. 17333, FCC 68-658, 13 Rad. Reg. 2d (P & F) 667, Decision, at ¶ 24. ("Manifestly, the phrase [telephone exchange service] is intended primarily to apply to a telephone or comparable service involving 'intercommunication,' *i.e.*, a two-way communication, not the one-way transmission of signals which takes place with respect to CATV channel service".).

[60] *Offshore Tel. Co.*, 3 FCC Rcd. 4137, 4142 (1988); see also *BellSouth Louisiana II Order*, 13 FCC Rcd. at 20621 (noting that telephone exchange service involves "a central switching complex which interconnects all subscribers within a geographic area"); *see also General Tel. Co. of Cal.*, 13 FCC 2d 448, 460, ¶ 24 (1968) ("Manifestly, the phrase [telephone exchange service] is intended primarily to apply to a telephone or comparable service involving 'intercommunication,' *i.e.*, a two-way communication, not the one-way transmission of signals which takes place with respect to CATV channel service".).

[61] *Midwest Corp.* involved a one-way television service used by commercial and institutional subscribers for the simultaneous reception of specialized communications. *Midwest Corp.* 53 FCC 2d at 300, ¶ 10. *Cox Cable Communications* involved digital transmission services (DTS) offered on a non-switched basis to particular institutions and private businesses, rather than services offered to the public indiscriminately. Unlike non-switched, private line type services, DSL-based services involve packet switching, which allows DSL subscribers to communicate with any other subscriber on the packet-switched network. In addition to the services being offered over private lines, the cases cited by U S WEST involved factual

communications between two or more designated points are set aside for the exclusive use or availability of a particular customer and authorized users during stated periods of time."[62] The xDSL-based services we consider in the instant proceeding function differently than private line services. Although an xDSL-based advanced service subscriber typically will predesignate the ISP or third party to whom his or her high-speed data transmissions are directed, the customer may, with relative ease, designate that his or her traffic be directed to a different ISP or third party. Changing the destination of the permanent virtual connection (PVC) can be done administratively, without disconnecting the customer's service.[63] Customers subscribing to private line service, in contrast, may communicate only between those specific, predetermined points set aside for that customer's exclusive use. If a private line customer wishes to communicate with a second end-point, the customer (unlike a xDSL-based advanced service subscriber) must order another private line. Similarly, if the customer wishes to have only one private line, the customer must have the first line disconnected. Thus, other than the fact that both services involve an initial connection between an end-user and a service provider, xDSL-based advanced services are readily distinguishable from private line service in ways critical to our application of the "telephone exchange service" classification.[64]

26. We recognize that, in the *GTE ADSL Tariffing Order*, the Commission noted that a dedicated connection between an end-user and a service provider's point of presence is similar to private line service.[65] We do not find, however, that such an observation is relevant with respect to determining whether services that employ xDSL

circumstances substantially different from those here. *Offshore Telephone*, for example, involved a dispute relating to pre-divestiture toll sharing, in which Offshore, a specialized radio communications carrier, complained that AT&T had engaged in unlawful discrimination by refusing to enter into toll sharing arrangements with Offshore while, at the same time, extending such arrangements to local exchange carriers. The Commission found that Offshore had failed to prove that it was a local exchange carrier and, therefore, was not similarly situated with local exchange carriers participating in the toll sharing. The Commission found it relevant that: (1) "Offshore's subscribers were a limited group of specialized business customers that used dedicated private lines to make long distance calls to and from offshore rigs and platforms;" (2) Offshore was not certified as a local exchange carrier; (3) Offshore classified its revenues as private line service revenues derived from interstate toll, not "local service revenues;" and (4) Offshore did not itself provide exchange switching. *Offshore at ¶ 11*. In contrast the record in the instant proceeding indicates that providers of xDSL-based services are certified as local exchange carriers and serve a broad base of customers. *See e.g.*, MGC Communications Comments at 1; DSLnet Comments at 2. Moreover, such carriers typically have deployed their own packet-switched networks and use their own facilities to route their subscribers' communications.

[62] 47 C.F.R. § 21.2.

[63] *See* Joint CLEC Commenters Comments at 9 (noting that setting up a PVC between two end points is a keyboard operation that takes seven minutes or less).

[64] *See* Joint CLEC Commenters Comments at 9 n.8 (stating that, unlike private line service, an end-user with a PVC targeted to one location may use that link to reach any other end user in that network).

[65] *GTE ADSL Tariffing Order* 13 FCC Rcd at 22478, ¶ 25.

technology may constitute telephone exchange service within the meaning of the Act. Rather, the key criterion for determining whether a service falls within the scope of the telephone exchange service definition is whether it permits "intercommunication." As noted above, in this regard, xDSL-based advanced service and private line service are distinguishable in that xDSL-based services permit intercommunication and private line services do not.

27. The final requirement in section 3(47)(A) is that telephone exchange services be covered by "the exchange service charge."[66] Although this term is not defined in the Act or the Commission's rules we glean its meaning from the context in which the phrase is used. We agree with those commenters who argue that the phrase implies that an end-user obtains the ability to communicate within the equivalent of an exchange area as a result of entering into a service and payment agreement with a provider of a telephone exchange service.[67] Specifically, we concur with AT&T that the "covered by the exchange service charge" clause comes into play only for the purposes of distinguishing whether or not a service is a local (telephone exchange) service, by virtue of being part of a "connected system of exchanges," and not a "toll" service.[68] Any other interpretation would confer upon LECs the ability to remove services at will from the definition of "telephone exchange services" simply by calling charges for these services something other than "exchange service charges" on their bills. We thus find that any charges that a LEC assesses for originating and terminating xDSL-based advanced services within the equivalent of an exchange area would be covered by the "exchange service charge."

28. We thus reject U S WEST's contention that, because the price of xDSL-based services is not included within the price of basic local telephone service, such services are not covered by "the exchange service charge." Indeed, we note that, in a competitive environment, where there are multiple local service providers and multiple services, there will be no single "exchange service charge."[69] We further note that, if a service otherwise satisfies the telephone exchange service definition, a LEC has the option of including the price of that service within the price it charges consumers for basic local telephone service. The fact that U S WEST, or any other LEC, chooses to list the charge for basic local telephone service and xDSL-based advanced service separately

[66] 47 U.S.C. § 3(47)(A).

[67] The Webster's Third New International Dictionary defines the verb to "subscribe" as "to agree to take and pay for something (as stock) by signing one's name to a formal agreement." A subscriber is defined as "one that subscribes." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (1971 ed.); *see also In* the Matter of Application by SBC Communications, Inc., Pursuant to Section 271 of the Communications act of 1934, As Amended, To Provide In-region, InterLATAa Services in Oklahoma, CC Docket No. 97-121, FCC 97-228, 12 FCC Rcd. 8685 (rel. June 26, 1997) (concluding that the term "subscribers," as used in section 3(47)(A) suggests that persons receiving the service pay a fee).

[68] See AT&T Comments at 11, n. 11.

[69] *See* Level 3 Communications Comments at 5.

on end-users' bills is not relevant to a determination of whether the price for the xDSL-based advanced service offering is covered by the exchange service charge.

(b) Section 3(47)(B)

29. We conclude that a service falls within the scope of section 3(47)(B) if it permits intercommunication within the equivalent of a local exchange area and is covered by the exchange service charge. In setting forth the types of services that may fall within the scope of section 3(47)(B), Congress determined, as an initial matter, that such services must be "comparable" to the services described in section 3(47)(A). Although the term "comparable" is not defined in the Act, it is generally understood to mean "having enough like characteristics and qualities to make comparison appropriate."[70] The xDSL-based advanced services at issue here, when they originate and terminate within an exchange area, satisfy the statutory definition of telephone exchange service under clause (B) of section 3(47) as well, and that clause provides an alternative basis for our conclusion that these services may constitute telephone exchange services. We note that neither the statutory text nor the legislative history accompanying section 3(47)(B) provides guidance on which characteristics and qualities must be present in order for a service to fall within the scope of section 3(47)(B). In these circumstances, we presume that Congress sought to provide the Commission with discretion in determining whether a particular telecommunications service is sufficiently "comparable" to the services described in section 3(47)(A) to constitute telephone exchange service within the meaning of the Act.[71]

30. We agree with U S WEST that the term "comparable," as used in section 3(47)(B), means that the services described therein share some of the same characteristics and qualities as the services described in section 3(47)(A). Because we find that the term "comparable" means that the services retain the key characteristics and qualities of the telephone exchange service definition under subparagraph (A), we reject the argument that subparagraph (B) eliminates the requirement that telephone exchange service permit "intercommunication" among subscribers within a local exchange area. As prior Commission precedent indicates, a key component of telephone exchange service is "intercommunication" among subscribers within a local exchange area.[72]

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[70] WEBSTER'S THIRD INTERNATIONAL DICTIONARY (1976); *see also* MCI Comments at 18; Sprint Comments at 4; U S WEST Brief at 24.

[71] *See United States v. Haggar Apparel Company*, 119 S.Ct. 1392, 1400 (1999) ("Here Congress has authorized the agency to issue rules so that the [statute] may be applied to unforeseen situations and changing circumstances in a manner consistent with general intent."); *see also* RCN Telecom Comments at 5-6; Level 3 Comments at 6.

[72] If section 3(47)(B) were interpreted as eliminating an "intercommunication" requirement, private line services would fall squarely within the definition of telephone exchange service, thus subjecting private line carriers to regulation as LECs. We do not find that, by amending the statute, Congress intended to extend the telephone exchange definition to encompass carriers that historically have been excluded from common carrier regulation. Indeed, in this regard, we agree with U S WEST that section 3(47)(B) was intended to expressly encompass the provision of telephone exchange service over facilities separate from the public switched network, such as packet-switching. Section 3(47)(B) provides, for example, that the

31. We reject U S WEST's contention, however, that section 3(47)(B) is limited to services that are "market substitutes" for two-way switched voice service. We recognize that, in the *Local Competition Order*, the Commission determined that section 3(47)(B) includes cellular and other wireless services because such services provide two-way voice communication that could "become...true economic substitute[s]" for traditional two-way switched voice services. Contrary to U S WEST's contention, however, the Commission never suggested that the telephone exchange service definition is limited to voice services or that substitutability is a necessary criterion for determining whether a particular telecommunications service falls within the scope of section 3(47)(B). We note however that xDSL-based services, in fact, are being used to replace local dial-up traffic to ISPs and third parties.

32. Other provisions in the Act support a conclusion that, although the services described in subsection (A) and subsection (B) of the telephone exchange service share some of the same characteristics and qualities, they are not necessarily identical services. Section 271, in particular, states that, in order for a BOC to obtain authorization to provide in-region, interLATA service, it must demonstrate that it is providing access and interconnection to "one or more unaffiliated competing providers" of the type of telephone exchange service described in section 3(47)(A) to residential and business subscribers. A BOC does not satisfy the requirements of section 271 on the basis of a competing provider of the type of services described in section 3(47)(B). Congress's decision to specifically limit section 271 authorization to the types of services described in section 3(47)(A) suggests that, while the services described in subsection (B) and subsection (A) share similar qualities, they are not necessarily identical service offerings.

B. xDSL-Based Services May Be Classified as Exchange Access

1. Background

33. The next question we address is whether, and under what circumstances, xDSL-based advanced services may be classified as exchange access under the Act. As we have previously found in the *Reciprocal Compensation Order*, xDSL-based advanced services that are used to connect ISPs with their subscribers to facilitate Internet bound traffic typically constitute exchange access service because the call initiated by the subscriber terminates at Internet websites located in other exchanges, states, or foreign countries.[73] The mechanics of the Internet bound call are critical to our determination

services described therein may be provided "through a system of switches, transmission equipment, or *other facilities* (or combination thereof)."

[73] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, , Declaratory Ruling and Notice of Proposed Rulemaking, 14 FCC Rcd 3689 (1999)("*Reciprocal Compensation Order*"). In reaching the determination that calls to ISPs are typically exchange access, the Commission rejected the contention that ISP-bound traffic consists of "two calls," one of which typically originates and terminates within an exchange area, because "'both court and Commission decisions have considered the end-to-end nature of the communications more significant than the facilities used to complete such communications'." Id. at ¶11(citations omitted). The Commission explained that it has consistently "rejected attempts to

that the xDSL-based advanced service provided by the local exchange carrier indeed is exchange access. For that reason, we briefly review the manner in which the call is executed.

34. An ISP is an entity that provides its customers with the ability to obtain a variety of on-line information through the Internet. However, ISPs typically own no telecommunications facilities. In order to provide those components of Internet access services that involve information transport, ISPs lease lines, and otherwise acquire telecommunications, from telecommunications providers - - LECs, CLECs, IXCs and others.[74] ISP's purchase use of analog and digital lines from LECs to connect to their dial-in subscribers. Under one typical arrangement, an ISP customer dials a seven-digit number to reach the ISP server in the same local calling area. To provide transport within its network, the ISP may purchase interexchange telecommunications services from telecommunications carriers, and for transport beyond its network, the ISP either purchases additional interexchange telecommunications from telecommunications carriers, or makes arrangements to interconnect its leased facilities with one or more Internet backbone providers.[75] Thus, the information service is provisioned by the ISP "via telecommunications" including interexchange telecommunications although the Internet service itself is an "information service" under section 3(2) of the Act, rather than a telecommunications service.[76]

2. Discussion

35. The issue we address here is whether xDSL-based services may constitute

divide communications at any intermediate points of switching or exchanges between carriers," id. at ¶10 - 11, citing *BellSouth MemoryCall* (rejecting the argument that a call answered by a voice mail service should be treated as a call to the number dialed followed by an information service call from that number to the voice mail address); *Teleconnect* (rejecting the argument that Teleconnect's 800 service should be treated as a call to Teleconnect followed by a call from Teleconnect to the number dialed); *Southwestern Bell* (rejecting the argument that a credit card call should be treated as a call from the card user to an interexchange carrier followed by a second call). *See Petition for Emergency Relief and Declaratory Ruling Filed by BellSouth Corporation*, 7 FCC Rcd 1619 (1992)("*BellSouth MemoryCall*"); *Teleconnect Co. v. Bell Telephone Co. of Penn.*, E-88-83, 10 FCC Rcd 1626 (1995)("*Teleconnect*"), *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C. Cir. 1997); and *In the Matter of Southwestern Bell Tel. Co.*, CC Docket No. 88-180, Order Designating Issues for Investigation, 3 FCC Rcd 2339, 2341 (1988) ("Southwestern Bell")

[74] See Federal – State Joint Board on Universal Service, CC Docket No. 96-45, *Report to Congress*, 13 FCC Rcd at 11540, ¶ 81 (1998)(hereinafter "Universal Service Report to Congress").

[75] Id. at 13 FCC Rcd 11532-11533, ¶ 66.

[76] Id. at 11536, ¶73. In fact, a service would not satisfy the definition of "information service" unless it had an underlying "telecommunications" component. Further, the telecommunications inputs underlying Internet services are subject to the universal service contribution mechanism. As the Commission has previously explained, "Companies that are in the business of offering basic interstate telecommunications functionality to end users are 'telecommunications carriers," and therefore are covered under the relevant provisions of sections 251 and 254 of the Act. Id. at ¶105

exchange access under the Act. This question arises primarily in the context of services provided to ISPs to facilitate their provision of Internet access services. Applying the definitions contained in section 3 of the Act, we conclude that the service provided by the local exchange carrier to the ISP is ordinarily exchange access service because it enables the ISP to transport the communication initiated by the end-user subscriber located in one exchange to its ultimate destination in another exchange, using both the services of the local exchange carrier and in the typical case the telephone toll service of the telecommunications carrier responsible for the interexchange transport.[77]

36. We evaluate two relevant definitions contained in the Act. Section 3(16), a new provision of the Act, defines "exchange access" as the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of *telephone toll service*." (emphasis added) Section 3(48), which was in the original Act, in turn defines "telephone toll service" as "telephone service between stations in different exchanges for which there is made a separate charge."[78] We conclude that because the local exchange carrier provides access permitting the ISP to complete the transmission from its subscriber's location to a destination in another exchange using the toll service it typically has purchased from the interexchange carrier, the access service provided by the local exchange carrier is for the "origination or termination of telephone toll service" within the meaning of the statutory definition. In reaching this conclusion, we further find that the interexchange carrier that provides the interexchange telecommunications to the ISP charges the ISP for those telecommunications and that charge is separate from the exchange service charge that the ISP or end user pays to the LEC. As a result, the "separate charge" requirement of section 3(48) is satisfied with respect to the underlying interexchange telecommunications.

37. We therefore reject the argument of those commenters who suggest that the *only* service originated or terminated by the local exchange carrier, when it provides access to the ISP, is an information service.[79] We previously rejected a similar argument in the *Universal Service Report to Congress,* where we held that carriers that offer basic interstate telecommunications functionality to end users (such as ISP subscribers) are

[77] These services are "telephone exchange service" when they originate and terminate within an exchange area and "exchange access" when they originate in one exchange and terminate in another. In the *Reciprocal Compensation Order*, we stated that ISPs are "users of access service. "*Reciprocal Compensation Order at ¶17.* We did not mean to suggest there that calls involving ISPs are never "telephone exchange service." To the contrary, we expressly recognized that "ISP-bound traffic is jurisdictionally mixed" (*id.* at ¶19). In concluding in the *Reciprocal Compensation Order* that ISP-bound traffic is not subject to section 251(b)(5), we were focusing on the "substantial portion of Internet traffic" that "involves accessing interstate or foreign websites" (*id.* at ¶18). In particular, we rejected the argument that ISP-bound traffic must be subject to section 251(b)(5) because *all* ISP-bound traffic allegedly consists of "two calls." Consistent with Commission precedent, in the *Reciprocal Compensation Order* we rejected the "two-call" argument and determined that a call from an end users subscriber to an Internet destination constitutes but a single call. *See supra*, note 69.

[78] 47 U.S.C. §(3)(48).

[79] SBC Comments at 9; GTE Reply Comments at 8.

"telecommunications carriers" covered by the relevant provisions of section 251 and 254 of the Act "regardless of the underlying technology those service providers employ, *and regardless of the applications that ride on top of their services.*"[80] In other words, even though the access provided to the ISP by the local exchange carrier facilitates the delivery of an information service because of the "applications that ride on top" of the telecommunications service, that same access necessarily facilitates the origination of the underlying telephone toll service used to transport the ISP's Internet access service. Therefore, while some commenters object that the LECs' services cannot be "exchange access" because there is no origination and termination of traffic to and from a telecommunications carrier, their argument fails whenever the ISP effectuates its transmission using the telephone toll service of a telecommunications carrier, as it generally does.

38. We recognize that this analysis with respect to "exchange access" does not by its terms cover traffic jointly carried by an incumbent LEC and a competitive LEC to an ISP where the ISP self-provides the transport component of its internet service. We leave for another day the question of whether the LEC-provided portion of such traffic (which we believe to be rare) falls within the definition of "exchange access" in section 3(16) and whether, as a result, the incumbent LEC would be subject to the interconnection obligations of section 251(c)(2) with respect to such traffic. We find, however, that even if such traffic traveling over the facilities of an incumbent LEC and a competitive LEC to an ISP falls outside the scope of section 3(16) and is not covered by section 251(c)(2), the ILEC would nevertheless be subject to interconnection obligations imposed by section 251(a) and (to the extent that the service is interstate) section 201(a). Moreover, we note that, to the extent that the LEC-provided portion of such traffic may not fall within the definition of "exchange access," the predominantly inter-exchange end-to-end nature of such traffic nevertheless renders it largely non-local for purposes of reciprocal compensation obligations of section 251(b)(5). In light of our authority to require interconnection under sections 201(a) and 251(a) even in the ISP self-provisioning context, we expect incumbent LECs to continue providing interconnection to competitive LECs without imposing tariff, certification or other requirements on competitive LECs requesting interconnection. We encourage parties alleging the imposition of such requirements to file complaints pursuant to section 208 of the Act.

39. We also reject US WEST's argument that xDSL-based advanced services are not encompassed within the definition of exchange access because such services may not connect one "telephone" to another.[81] US WEST argues that because "telephone toll service" is defined as "*telephone* service *between stations* in different exchange," use of computers or other facilities than telephones as "stations" should remove a service from the classification of telephone toll service. Based on this premise, US WEST further argues that "telephone toll service" should be narrowly construed and that only ordinary telephone to telephone long distance calling can be classified as telephone toll service. We reject these contentions for several reasons.

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[80] *Universal Service Report to Congress*, 13 FCC Rcd at 11520, ¶ 39.

[81] US WEST Comments at 8.

40. First, nothing in the Act or legislative history equates the term "station" with any particular type of facility. As several commenters point out, Commission precedent supports the conclusion that the term "station" in section 3(48) refers to *any* device used by an end-user to receive and terminate telecommunications.[82] For example, long distance facsimile transmissions (which clearly involve data) have long been considered telephone toll service; yet those transmissions often are effectuated without the use of a "telephone" device. Rather, as with computers, the facsimile machine is plugged into a telephone jack, and then uses the phone wires for the transmission. US WEST's argument ignores this longstanding precedent. Moreover, a narrow, technology-specific interpretation of the term "station" is not articulated in the Act itself and would be at odds with its "technology neutral" objectives.[83] US WEST would ask us to conclude that Congress intended to ignore the fact that facilities and equipment used to provide telecommunications services evolve over time. We conclude that US WEST's interpretation is neither a "plain meaning," as it asserts, nor, in our view, a reasonable interpretation.

41. Similarly, we reject US WEST's assertion that "telephone service" is limited to voice communications.[84] The local switched network has been used for the origination and termination of interstate data communications for many years. As noted above, the network has long been used to transmit facsimile communications, which are data communications. In fact, in its arbitration with e-spire before the Arizona Corporation Commission, US WEST acknowledged that it is offering the equivalent of exchange access when it permits access to its network for the origination or termination of interstate frame relay services.[85] Similar to xDSL-based services, frame relay service is a high-speed packet switching technology that is used to transmit digital data.[86]

42. We recognize that we did hold, in the *Non-Accounting Safeguards Order,* that ISPs do not receive "exchange access services in connection with their provision of

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[82] In addition, Part 68 of the Commission's rules adopts an expansive interpretation of equipment connected to the Public Switched Telephone Network to included a broad array of customer premesis equipment in addition to analog telephones. *See e.g.,* 47 C.F.R. 68.308; Paradyne Corporation Petition for Waiver of the Signal Power Limitations contained in Section 68.308(e) of the Commission's Rules, *Order*, File Nos.: NSD-L-98-93, DA 99-599 (rel. March 29, 1999). *See* CoreComm Comments at 8; Rhythms Comments at 6.

[83] *See* Federal State Joint Board on Universal Service, *Report and Order*, 12 FCC Rcd. 8776, 8802-8803 (noting the importance of competitive and technological neutrality to promote competition).

[84] US WEST Comments at 8.

[85] *See* US WEST Communications, Inc. Reply Memorandum in Support of its Proposed Amendment Language, Arizona Corporation Commission Docket No. T-0321A-989-0406 (filed May 6, 1999) at 3.

[86] See In the Matter of Independent Data Communications Manufacturers Ass'n, Inc. Petition for Declaratory Ruling that AT&T's InterSpan Frame Relay Service is a Basic Service and AT&T Co. Petition for Declaratory Ruling that All ISCs be Subject to the ommission's Decision on the IDCMA Petition, DA 95-2190, 10 FCC Rcd 13717 (1995) (*Frame Relay Order*) at para 6.

unregulated information services because of their status as non-carriers."[87] However, that Order constitutes a departure from other Commission precedent on this matter. In a contemporaneous Commission decision, the *Local Competition Order*, we specifically stated that, although "[t]he vast majority" of exchange access service purchasers are telecommunications carriers, non-carriers "do occasionally purchase" such services.[88] In fact, when the *Non-Accounting Safeguards Order* was issued, the question of whether an xDSL-based service offering directed at ISPs could be "exchange access" or "telephone exchange service" was not before the Commission. Indeed, such service was first offered more than a year after release of that Order.

43. On a more complete record in this proceeding, we correct the inconsistency in our prior orders and overrule the determination made in the *Non-Accounting Safeguards Order* that non-carriers may not use exchange access and affirm our determination in the *Local Competition Order* that non-carriers may be purchasers of those services. We find that this conclusion is consistent with the Commission's longstanding characterization of the service that LECs offer to enhanced services providers (which include ISPs) as exchange access. In *MTS and WATS Markets Structure Order*, the Commission held that "[a]mong the variety of users of access service are...enhanced service providers."[89] As recognized in that case, the Commission has always required LECs to offer access services to parties that may not be common carriers.[90] Similarly, we noted in the *Amendment of Part 69 of the Commission's Rules Relating to Enhanced Service Providers* that enhanced service providers use "exchange access service"[91] More recently, in *the GTE ADSL Tariffing Order,* we noted that "[t]he Commission traditionally has characterized the link from an end user to an ESP as an interstate access service."[92]

44. These holdings comport with the conclusion in *the Local Competition Order* that non-carriers may purchase exchange access services.[93] This historical treatment properly serves as a lens through which to view Congress's intent in codifying a definition of "exchange access" in the 1996 Act.[94] Nothing in the new definition of the

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[87] *Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (1996).

[88] *Local Competition Order*, 11 FCC Rcd at 15934-35, ¶ 873.

[89] *MTS and WATS Markets Structure Order*, 97 FCC 2d at 711, ¶ 78.

[90] *Id.*

[91] 2 FCC Rcd at 4305, ¶ 2, 4306, ¶ 7; *see also* 3 FCC Rcd at 2631, ¶ 2 (referring to "certain classes of exchange access users, including enhanced service providers").

[92] *GTE ADSL Tariffing Order*, 13 FCC Rcd at 22478, ¶ 21.

[93] *Local Competition Order*, 11 FCC Rcd at 15934-35, ¶ 873.

[94] *See, e.g., Goodyear Atomic Corp. v. Miller*, 486 U.S. 174, 184-85 (1988)("We generally assume that

Act or in its history suggests that Congress intended to narrow, for the first time, the availability of exchange access service to certain telecommunications service providers. For these reasons, we overrule our statements in the *Non-Accounting Safeguards Order* that non-carriers may not use exchange access, which we find to be inconsistent with our own precedent, and with the structure of the Act.

45. Finally, we reject U S WEST's contention that including DSL-based advanced services within the definition of "exchange access" would be inconsistent with the Commission's prior determination that such services constitute "special access." Rather, we find that, with respect to access to the local network for the purpose of originating or terminating an interexchange communication, any service that otherwise constitutes "special access" also falls within the definition of "exchange access." We note that "special access" refers to a dedicated path between an end-user and a service provider's point of presence.[95] We agree that special access, which provides access to the exchange through dedicated facilities, is different than switched access, which provides access to the exchange using switches. Both forms of access, however, provide access to exchange facilities, which is the pertinent point under the statutory definition of "exchange access."

C. "Information Access Service" is Not a Statutory Classification Separate and Distinct from Telephone Exchange Service and Exchange Access

46. US WEST contends that it is not subject to section 251(c) for its provision of xDSL-based advanced services because such services are "information access" services, which it considers a category distinct from both "telephone exchange services" and "exchange access" services.[96] US WEST argues that the category of "information access" in the Modification of Final Judgement (MFJ) should be extended to the Communications Act, notwithstanding that "information access" is not a defined term under the Act, and is cross-referenced in only two transitional provisions. SBC and GTE join US West's argument that advanced services are "information access," which they assert is a category of service distinct from telephone exchange or exchange access under the Communications Act.[97] A number of parties question whether Congress intended to establish "information access" as a separate category of services that are not subject to section 251 requirements.[98] We disagree with US WEST and the commenters who argue that information access services are a separate category of services not subject to section

Congress is knowledgeable about existing law pertinent to the legislation it enacts.").

[95] *GTE ADSL Tariffing Order* 13 FCC Rcd at 22478, ¶ 24.

[96] US WEST Comments at 8.

[97] SBC Comments at 8; GTE Comments at 8-11.

[98] AOL Reply Comments at 11; CoreComm Comments at 13, n.35; RCN Comments at 5-6; MCI WorldCom Comments at 14-16; Level 3 Comments at 8-9; Focal Comments at 10-11.

251(c). For the reasons set forth below, we decline to find that information access services are a separate category of services, distinct from, and mutually exclusive with, telephone exchange services or exchange access services.

47. Although Congress made a number of changes to the definitional provisions of the Act in the 1996 Act it did not include a definition for the term "information access." That omission is not surprising in light of the fact that this term is referenced only twice in the Act, and only for the purposes of transitioning from the MFJ. In contrast, the 1996 Act did provide for new or modified definitions of several terms critical to the statute, including both "exchange access" and "telephone exchange service," terms that appear throughout the Act. The term "information access" first appears in sections 251(g). That provision is a transitional enforcement mechanism that obligates the incumbent LECs to continue to abide by equal access and nondiscriminatory interconnection requirements of the MFJ when such carriers "provide exchange access, information access and exchange services for such access to interexchange carriers and information service providers...." Because the provision incorporates into the Act, on a transitional basis, these MFJ requirements, the Act uses the MFJ terminology in this section.[99] However, this provision is merely a continuation of the equal access and nondiscrimination provisions of the Consent Decree until superseded by subsequent regulations of the Commission.[100]

48. The reference to "information access" in section 274(h)(2)(A) adds little more to US West's argument. That section states that the term "electronic publishing," which section 274 prohibits BOCs form providing for four years, does not include "information access" as defined in the MFJ. The cross-reference to the MFJ reflects the fact that although a BOC would be precluded for a time from engaging in electronic publishing, that prohibition would not encompass other offerings related to information services, including "information access," that otherwise were permitted by the divestiture court. Yet again, in this transitional four-year provision, Congress was merely reconciling certain aspects of the MFJ with the new law. Equally significant, nothing in this provision suggests that "information access" is a category of services mutually exclusive with exchange access or telephone exchange service.

49. For the reasons set forth above, we find that the requirements Congress set forth in section 251 apply to incumbent LECs providing xDSL-based advanced services

[99] In addition to our disagreement with US WEST as to the significance of the MFJ terminology, we question US WEST's underlying premise that the MFJ court considered "information access" to be a category separate and distinct from telephone exchange services and exchange access. In that regard, we note that the MFJ itself defined information access as "the provision of specialized exchange telecommunications services by a BOC in an exchange area...," thus indicating that information access was but a subcategory of a broader category of services. *See United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131 (D.D.C 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

[100] *See, e.g. United States v. Western Electric Co.*, 741 F.Supp. 1,3 (D.D.C. 1988) ("All information services are provided directly via the telecommunications network. The Operating Companies would therefore have the same incentives and the same ability to discriminate against competing information service providers that they would have with respect to competing interexchange carriers").

and that these services are either telephone exchange or exchange access.

IV. ORDERING CLAUSES

50. Accordingly, IT IS ORDERED that, pursuant to the authority contained in Sections 1-4, 7, 10, 201-205, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 157, 160, 201-205, 251-254, 256, 271, and 303(r), this *Order on Remand* IS ADOPTED.

51. IT IS FURTHER ORDERED that the Commission's holding in its *Advanced Services Opinion and Order*, that incumbent local exchange carriers are subject to the obligations imposed by section 251 of the Communications Act in connection with the offering of advanced services that employ packet switching or other specific technologies such as digital subscriber line technologies, IS AFFIRMED except to the extent that the Commission has deferred a determination on the narrow question set forth in paragraph 38.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Román Salas

Magalie Román Salas
Secretary

Appendix A

List of Commenters in CC Docket No. 98-147

Comments:

Advanced Telcom Group, et al.
AT&T Corp.
CDS Networks, Inc.
CoreComm Limited
Covad Communications Company
DSLnet Communications, LLC
Focal Communications Corporation, et al.
General Services Administration
GTE Service Corporation
Level 3 communications
MCI WorldCom, Inc.
Mindspring Enterprises, Inc.
Northpoint Communications, Inc.
Prism Communications Services
Rhythms Netconnections Inc.
SBC Communications Inc.
Sprint Corporation
Telecommunications Resellers Association
U.S. West Communications, Inc.

Reply Comments:

America Online, Inc.
AT&T Corp.
Cable & Wireless USA, Inc.
Competitive Telecommunications Association
DLSnet Communications, LLC
GTE Service Corporation
GVNW Consulting, Inc.
ICG Communications, Inc.
Level 3 Communications, LLC
MCI WorldCom, Inc.
NARUC
Network Access Solutions Corporation
Northpoint Communications, Inc.
Prism Communications Services, Inc.
RCN TeleCom Services, Inc., et al.
Rhythms Netconnections Inc.

SBC Communications Inc.
U.S. West, Inc.
USTA
Williams Communications, Inc.

STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH APPROVING IN PART & DISSENTING IN PART

Re: Deployment of Wireline Services Offering Advanced Telecommunications Capability, Order on Remand, CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-78, 98-91.

I agree with the Commission's decision that US WEST is an incumbent local exchange carrier and may not avoid the obligations imposed by section 251(c)(3) when providing advanced services. I also agree with its conclusion that "information access service" is not a statutory classification separate and distinct from telephone exchange service and exchange access. I cannot, however, approve of the Commission's conclusions that advanced services are either telephone exchange service or exchange access, and I dissent from this aspect of its order.

The statute supplies two definitions of "telephone exchange service." It is either a "service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge," or it is a "comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service." 47 U.S.C. § 3(47). Exchange access means "the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services." *Id.* § 3(16).

At the outset, I recognize that these definitions are hardly models of clarity. They incorporate terms better suited to the traditional circuit-switched network, some of which are left undefined in the statute, such as "telephone exchange," "intercommunicating," "the exchange service charge," "origination," and "termination."

Although I agree with the Commission that "telephone exchange service" is not limited to the provision of voice services, I do not think that all advanced services can necessarily be shoehorned into the definition of "telephone exchange service." In my view, some advanced services do not permit the type of "intercommunication" contemplated by section 3(47)(A).

`For example, as the Commission acknowledges,[101] an end-user's communication using an xDSL-based service is with an Internet service provider ("ISP") or other third party to which the end-user subscribes. It is not with –and thus not in intercommunication with--other subscribers to a local telephone exchange network, or with subscribers on a different telephone exchange network, or even with the party to whom the end-user's Internet traffic is ultimately directed.

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[101] *See, e.g., supra* at para. 24 (noting that "a customer must designate the ISP or third party to whom his or her high-speed data transmissions are directed").

Because communication with an advanced service such as xDSL is with and through an ISP, I find it difficult to classify such services as either telephone exchange service or access service. *First*, as I explained in the reciprocal compensation order, I believe that traffic to an ISP, whether dial-up traffic or provided through an advance service, terminates at a the ISP.[102] The so-called "two-call theory" was properly advanced by the Commission before January of this year and then improperly abandoned to provide a short-term remedy to reciprocal compensation issues. As I view local exchange traffic as terminating at an ISP, I consequently cannot view traffic subsequently routed by an ISP as part of a single call, or part of a telephone exchange service.

Second, the Commission has long held that an ISP is not a telecommunications carrier or telecommunications provider.[103] Thus, even under a single-call theory for ISP-bound traffic, it is hard to explain how traffic handled and routed by an ISP could, end-to-end, be an identifiable telecommunications service. How does one characterize the role and identity of the non-telecommunications ISP in a communication that it routes or delivers? This paradox applies for both dial-up traffic and traffic by means of advanced services.

Third, communications through ISPs do not in most instances "terminate" at the facilities of other subscribers. Rather, messages are stored at remote servers, in region or out of region, but not with the ultimate addressee. The addressee, in turn, retrieves the message from the remote server. All of the activities of sending, storing, and retrieving messages are conducted on facilities that the Commission has not suggested are associated with a particular telecommunications service, much less with a particular telephone exchange service or exchange access service.

Fourth, the current use of xDSL services appears fundamentally at odds with the concept of "intercommunication." The end-user cannot change the ISP to whom his high-speed data communications are directed without first disconnecting from that ISP and designating a replacement ISP. Whatever "intercommunication" is occurring in this scenario is between the end-user and the ISP, and I therefore do not think that the end-user is employing advanced services for "intercommunication" with other subscribers within the meaning of section 3(47)(A). Moreover, because the end-user is not

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[102] *See* Separate Statement of Commissioner Harold W. Furchtgott-Roth, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd. 3689 (1999).

[103] *See, e.g.*, Universal Service Report to Congress, 13 FCC Rcd 11501, 11522-23 (1998) (describing prior conclusions that ISPs do not to offer "telecommunications service" and thus are not "telecommunications carriers").

"intercommunicating" with other subscribers, I do not agree that advanced services can be deemed "comparable services" under section 3(47)(B).

For similar reasons, I do not believe that advanced services may be classified as "exchange access," which the statute defines as the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services. 47 U.S.C. § 3(16). In the first place, I do not see how an xDSL-based communication is used in the origination or termination of a "telephone toll service," which is a "telephone service between stations in different exchange areas for which there is made a separate charge not include in contracts with subscribers for exchange access," *Id.* §3(48). In any event, as indicated above, I disagree with the Commission's theory regarding the jurisdictional nature of Internet traffic. In my view, an xDSL-based communication to an ISP terminates with the ISP, and so such traffic is not properly classified as "exchange access."