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

In the Matters of	)	
	)	
Appropriate Framework for Broadband Access to the Internet over Wireline Facilities	)	CC Docket No. 02-33
	)	
Universal Service Obligations of Broadband Providers	)	
	)	
Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services	)	CC Docket No. 01-337
	)	
Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements	)	CC Docket Nos. 95-20, 98-10
	)	
Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with Regard to Broadband Services Provided Via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided Via Fiber to the Premises	)	WC Docket No. 04-242
	)	
Consumer Protection in the Broadband Era	)	WC Docket No. 05-271

REPORT AND ORDER
AND
NOTICE OF PROPOSED RULEMAKING

Adopted: August 5, 2005 **Released: September 23, 2005**

Comment Date: (90 Days After Federal Register Publication of this Notice)
Reply Comment Date: (135 Days After Federal Register Publication of this Notice)

By the Commission: Chairman Martin and Commissioner Abernathy issuing separate statements; Commissioners Copps and Adelstein concurring and issuing separate statements.

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I. INTRODUCTION

1. In this Order, we establish a new regulatory framework for broadband Internet access services offered by wireline facilities-based providers. Our actions today are essential to attaining the goals set forth in the *Wireline Broadband* proceeding,[1] and are reinforced by and consistent with the Supreme Court's recent opinion in *NCTA v. Brand X*.[2] This framework establishes a minimal regulatory environment for wireline broadband Internet access services to benefit American consumers and promote innovative and efficient communications. First, this Order encourages the ubiquitous availability of broadband to all Americans by, among other things, removing outdated regulations. Those regulations were created over the past three decades under technological and market conditions that differed greatly from those of today. Second, the framework we adopt in this Order furthers the goal of developing a consistent regulatory framework across platforms by regulating like services in a similar functional manner, after a transitional period. Finally, the actions we take in this Order allow facilities-based wireline broadband Internet access service providers to respond to changing marketplace demands effectively and efficiently, spurring them to invest in and deploy innovative broadband capabilities that can benefit all Americans, consistent with the Communications Act of 1934, as amended (the Communications Act or Act).

[1] *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Universal Service Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking, 17 FCC Rcd 3019 (2002) (*Wireline Broadband NPRM*).

[2] *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 125 S. Ct. 2688 (2005) (*NCTA v. Brand X*), *aff'g Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185 & CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002) (*Cable Modem Declaratory Ruling and NPRM*).

2. In this Order we reach a classification determination that is consistent with our decision in the *Cable Modem* proceeding, as affirmed by the Supreme Court. Unlike the *Cable Modem Declaratory Ruling*,[3] however, which addressed a service and its transmission component that had not previously been classified under the Act or subjected to any network access requirements, because facilities-based providers of wireline broadband Internet access service are subject to legacy regulation,[4] we must consider that legacy regulation in determining the appropriate regulatory framework for wireline broadband Internet access service providers.

3. Today, we decide that the appropriate framework for wireline broadband Internet access service, including its transmission component, is one that is eligible for a lighter regulatory touch.[5] In the past, the primary, if not sole, facilities-based platform available for the provision of "information services" to consumers was an incumbent local exchange carrier's (incumbent LEC's) telephone network.[6] By contrast, the record before us demonstrates that the broadband Internet access market today is characterized by several emerging platforms and providers, both intermodal and intramodal, in most areas of the country.[7] We are confident that the regulatory regime we adopt in this Order will promote the availability of competitive broadband Internet access services to consumers, via multiple platforms, while ensuring adequate incentives are in place to encourage the deployment and innovation of broadband platforms consistent with our obligations and mandates under the Act.[8]

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[3] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4799-839, paras. 1-71.

[4] As the Supreme Court recently observed, the Commission has never applied its legacy-based network access regime to information services provided over cable facilities. *NCTA v. Brand X*, slip op. at 30; *see Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4825, para. 43.

[5] Throughout this Order, we refer to the transmission underlying wireline broadband Internet access service as the "transmission component." We note that commenters use various terms to refer to this transmission component. *See, e.g.*, AT&T Comments at 17 ("standalone broadband transmission services"); Covad Comments at 65-66 ("telecommunications component"); BellSouth Reply at 12 (same).

[6] *See NCTA v. Brand X*, slip op. at 30. This network was optimized for narrowband voice and data applications, not high-speed Internet access capabilities that were not yet even commercially contemplated. *See Wireline Broadband NPRM*, 17 FCC Rcd at 3037, para. 136.

[7] *E.g.*, Alcatel Comments at 2-3; BellSouth Comments at 15-18; Qwest Comments at 26; SBC Comments at 20-24; Verizon Comments at 15; *see also NCTA v. Brand X*, slip op. at 2-3. We refer to "intramodal competitors" as those competitive providers, such as Covad, whose services are either delivered partially or wholly over incumbent LEC facilities, or over wireline platforms using technology identical or similar to those which incumbent LECs have deployed. "Intermodal competitors" are providers of services similar to those provided by incumbent LECs that rely exclusively on technological platforms other than wireline technologies. As we discuss in part V.B.1, below, intermodal competitors include, for example, cable modem service providers, wireless broadband Internet access service providers, satellite broadband Internet access service providers, and other broadband Internet access service providers such as broadband over power line providers. *Availability of Advanced Telecommunications Capability in the United States*, GN Docket No. 04-54, Fourth Report to Congress, FCC 04-208, at 18-23, 45 (rel. Sept. 9, 2004) (*Fourth Section 706 Report*) (describing wireless, satellite, and power line platforms). Twice a year, the Commission releases *High-Speed Services* reports that summarize the results of its Form 477 data collection under which all facilities-based providers of high-speed telecommunications capability must provide information regarding their operations. *See, e.g.*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *High-Speed Services for Internet Access as of December 31, 2004*, at Table 3, Chart 6 (rel. July 7, 2005) (*High-Speed Services July 2005 Report*).

[8] Specifically, Congress enacted the Telecommunications Act of 1996 (1996 Act) for the express purposes of promoting competition, reducing regulation, and encouraging the rapid deployment of new telecommunications (continued . . .)

4. In part II, below, we summarize the major actions we take in this Order. In part III, we provide important background information and define the scope of this Order. Then in part IV, we classify wireline broadband Internet access service as an information service under the statute. In part V, we develop our new regulatory framework for broadband Internet access services offered by wireline facilities-based providers. We begin this part by describing the current regulatory framework under the *Computer Inquiry* regime[9] and the technological attributes associated with broadband Internet access services that are relevant to our decision-making process. Next, we consider the appropriateness of maintaining the current access and related requirements that apply to facilities-based wireline broadband Internet access service providers under the *Computer Inquiry* rules. We conclude that continued application of the *Computer Inquiry* requirements is not appropriate, and we adopt a new framework for wireline broadband Internet access service providers. We then determine that, given this new framework, the transmission component of wireline broadband Internet access is not a telecommunications service. In part VI, we analyze the effect of our classification findings on universal service, national security, and other important consumer interests. Finally, consistent with our objective to create a broadband regulatory regime that is technology and competitively neutral, we adopt a Notice of Proposed

(continued from previous page)
technologies. *See* Preamble, Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996) (Preamble to 1996 Act). In section 706 of the 1996 Act, Congress directed the Commission to encourage, without regard to transmission media or technology, the deployment of advanced telecommunications capability to all Americans on a reasonable and timely basis through, among other things, removing barriers to infrastructure investment. Section 706 is reproduced in the notes to section 157 of the Act. *See* 47 U.S.C. § 157 nt.

[9] *See Amendment of Section 64.702 of the Commission's Rules and Regulations* (*Computer II*), 77 FCC 2d 384 (1980) (*Computer II Final Decision*), *recon.*, 84 FCC 2d 50 (1980) (*Computer II Reconsideration Order*), *further recon.*, 88 FCC 2d 512 (1981) (*Computer II Further Reconsideration Order*), *aff'd sub nom. Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982) (*CCIA v. FCC*), *cert. denied*, 461 U.S. 938 (1983) (collectively referred to as *Computer II*); *Amendment of Section 64.702 of the Commission's Rules and Regulations*, CC Docket No. 85-229, Phase I, 104 FCC 2d 958 (1986) (*Computer III Phase I Order*), *recon.*, 2 FCC Rcd 3035 (1987) (*Computer III Phase I Reconsideration Order*), *further recon.*, 3 FCC Rcd 1135 (1988) (*Computer III Phase I Further Reconsideration Order*), *second further recon.*, 4 FCC Rcd 5927 (1989) (*Computer III Phase I Second Further Reconsideration Order*); *Phase I Order and Phase I Recon. Order vacated sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990) (*California I*); CC Docket No. 85-229, Phase II, 2 FCC Rcd 3072 (1987) (*Computer III Phase II Order*), *recon.*, 3 FCC Rcd 1150 (1988) (*Computer III Phase II Reconsideration Order*), *further recon.*, 4 FCC Rcd 5927 (1989) (*Phase II Further Reconsideration Order*); *Phase II Order vacated, California I*, 905 F.2d 1217 (9th Cir. 1990); *Computer III Remand Proceeding*, CC Docket No. 90-368, 5 FCC Rcd 7719 (1990) (*ONA Remand Order*), *recon.*, 7 FCC Rcd 909 (1992), *pets. for review denied sub nom. California v. FCC*, 4 F.3d 1505 (9th Cir. 1993) (*California II*); *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, CC Docket No. 90-623, 6 FCC Rcd 7571 (1991) (*BOC Safeguards Order*), *BOC Safeguards Order vacated in part and remanded sub nom. California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (*California III*), *cert. denied*, 514 U.S. 1050 (1995); *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, CC Docket No. 95-20, Notice of Proposed Rulemaking, 10 FCC Rcd 8360 (1995) (*Computer III Further Remand Notice*), *Further Notice of Proposed Rulemaking*, 13 FCC Rcd 6040 (1998) (*Computer III Further Remand Further Notice*); Report and Order, 14 FCC Rcd 4289 (1999) (*Computer III Further Remand Order*), *recon.*, 14 FCC Rcd 21628 (1999) (*Computer III Further Remand Reconsideration Order*); *see also Further Comment Requested to Update and Refresh Record on Computer III Requirements*, CC Dockets Nos. 95-20 & 98-10, Public Notice, 16 FCC Rcd 5363 (2001) (asking whether, under the open network architecture (ONA) framework, information service providers can obtain the telecommunications inputs, including digital subscriber line (DSL) service, they require) (collectively referred to as *Computer III*). Together with *Computer I*, *see infra* note 49, *Computer II* and *Computer III* are referred to as the *Computer Inquiries*.

Rulemaking seeking comment on the need for any non-economic regulatory requirements necessary to ensure that consumer protection needs are met by all providers of broadband Internet access service, regardless of the underlying technology.

II. EXECUTIVE SUMMARY

5. In accordance with our responsibilities under the Act, and in light of the competitive and technical characteristics of the broadband Internet access market today, we take the following actions to establish a comprehensive regulatory framework for facilities-based providers of wireline broadband Internet access service:

- Consistent with the Supreme Court's opinion in *NCTA v. Brand X*, we determine that facilities-based wireline broadband Internet access service is an information service.

- Facilities-based wireline broadband Internet access service providers are no longer required to separate out and offer the wireline broadband transmission component (*i.e.*, transmission in excess of 200 kilobits per second (kbps) in at least one direction) of wireline broadband Internet access services as a stand-alone telecommunications service under Title II, subject to the transition explained below. In addition, the Bell Operating Companies (BOCs) are immediately relieved of all other *Computer Inquiry* requirements with respect to wireline broadband Internet access services.

- Facilities-based wireline carriers are permitted to offer broadband Internet access transmission arrangements for wireline broadband Internet access services on a common carrier basis or a non-common carrier basis.

- Facilities-based wireline Internet access service providers must continue to provide existing wireline broadband Internet access transmission offerings, on a grandfathered basis, to unaffiliated ISPs for a one-year transition period.

- We affirm that neither the statute nor relevant precedent mandates that broadband transmission be a telecommunications service when provided to an ISP, but the provider may choose to offer it as such. We determine that the use of the transmission component as part of a facilities-based provider's offering of wireline broadband Internet access service to end users using its own transmission facilities is "telecommunications" and not a "telecommunication service" under the Act.

6. We also address other important areas relating to the provision of broadband Internet access services including:

- We maintain the *status quo* for universal service during for a 270-day period pending resolution of the *USF Contribution Methodology* proceeding.

- We ensure no adverse impact on public safety through the continued requirement that voice over IP (VoIP) providers using wireline broadband Internet access facilities comply with E911 obligations.

- We confirm that this Order does not affect disability access obligations the Commission has adopted pursuant to its Title I ancillary jurisdiction, and we will continue to exercise our Title

I authority, as necessary, to give full effect to the accessibility policy embodied in section 255.

- Nothing in this Order changes requesting telecommunications carriers' rights to access unbundled network elements (UNEs) under section 251 and our related implementing rules.

7. Finally, we adopt a Notice of Proposed Rulemaking seeking comment on the need for any non-economic regulatory requirements necessary to ensure that consumer protection needs are met by all providers of broadband Internet access service, regardless of the underlying technology.

III. BACKGROUND AND SCOPE

8. As the Supreme Court held in *NCTA v. Brand X*, the Communications Act does not address directly how broadband Internet access service should be classified or regulated.[10] The Act does, however, provide the Commission express directives with respect to encouraging broadband deployment, generally, and promoting and preserving a freely competitive Internet market, specifically.[11] Consequently, the Commission initiated the *Wireline Broadband* proceeding to answer important questions about the appropriate legal and policy framework for wireline broadband Internet access service in furtherance of its obligations under the Act. In undertaking this review, the Commission recognized the differing market and technical characteristics unique to broadband Internet access services.[12] To that end, the *Wireline Broadband NPRM* sought detailed comment on the appropriate regulatory framework for wireline broadband Internet access service.[13] Since commencing this proceeding, the Commission has taken a number of important actions regarding broadband facilities and services.[14]

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[10] *NCTA v. Brand X*, slip op. at 17-25; *see Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4819, para. 32.

[11] *See supra* n.8; *cf. United States Telecom Association v. FCC*, 359 F.3d 554, 580-82 (D.C. Cir. 2004) (*USTA II*), *cert. denied*, 125 S. Ct. 313, 316, 345 (2004) (holding that the Commission reasonably interpreted section 251(c)(3) of the Act as allowing it to withhold unbundling, even in the face of some impairment, where such unbundling would pose excessive impediments to infrastructure investment).

[12] *Wireline Broadband NPRM*, 17 FCC Rcd at 3027, para. 13.

[13] *Id.* at 3040-43, paras. 43-53.

[14] *See, e.g., Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c)*, WC Docket Nos. 01-338, 03-235, 03-260, 04-48, Memorandum Opinion and Order, 19 FCC Rcd 21496 (2004) (*Broadband 271 Forbearance Order*); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration, 19 FCC Rcd 20293 (2004) (*Fiber to the Curb Reconsideration Order*); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration, 19 FCC Rcd 15856 (2004) (*Multiple Dwelling Unit Reconsideration Order*); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17141-53, paras. 272-95, & 17323, para. 541 2003 (*Triennial Review Order*), *aff'd in part, remanded in part, vacated in part, USTA II*, 359 F.3d at 564-93.

9. Wireline broadband Internet access service, for purposes of this proceeding, is a service that uses existing or future wireline facilities of the telephone network to provide subscribers with Internet access capabilities.[15] The term "Internet access service" refers to a service that always and necessarily combines computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications such as e-mail, and access web pages and newsgroups.[16] Wireline broadband Internet access service, like cable modem service, is a functionally integrated, finished service that inextricably intertwines information-processing capabilities with data transmission such that the consumer always uses them as a unitary service.[17] For example, as we explained in the *Wireline Broadband NPRM*, where wireline broadband Internet access service enables an end user to retrieve files from the World Wide Web, the end user has the capability to interact with information stored on the service provider's facilities.[18] To the extent a provider offers end users a capability to store files on the service provider's computers to establish "home pages," the consumer is utilizing the "capability for . . . storing . . . or making available information."[19] In short, providers of wireline broadband Internet access service offer subscribers the ability to run a variety of applications that fit under the characteristics stated in the information service definition.[20] These characteristics distinguish wireline broadband Internet access service from other wireline broadband services, such as stand-alone ATM service, frame relay,

[15] We stress that our actions in this Order are limited to wireline broadband Internet access service and its underlying broadband transmission component, whether that component is provided over all copper loops, hybrid copper-fiber loops, a fiber-to-the-curb or fiber-to-the-premises (FTTP) network, or any other type of wireline facilities, and whether that component is provided using circuit-switched, packet-based, or any other technology. *See Wireline Broadband NPRM*, 17 FCC Rcd at 3020 n.1 & 3026, para. 12. As noted in the *Wireline Broadband NPRM*, some service providers deploying DSL and other wireline broadband technologies may utilize asynchronous transfer mode (ATM) or frame relay transport in their networks. *See Wireline Broadband NPRM*, 17 FCC Rcd at 3026 n.19. The use of ATM or frame relay transport in this context neither expands nor limits the scope of relief, which covers all wireline broadband Internet access services as discussed further below. This Order *does not* implicate the current rules or regulatory framework for the provision of access to narrowband transmission associated with dial-up Internet access services or other narrowband or broadband information services when provided by facilities-based wireline carriers. *See Wireline Broadband NPRM*, 17 FCC Rcd at 3025 n.18. For purposes of this proceeding, we define the line between broadband and narrowband consistent with the Commission's definition in other contexts (*i.e.*, services with over 200 kbps capability in at least one direction). *See, e.g.*, *Fourth Section 706 Report*, at 8, 10; *Local Telephone Competition and Broadband Reporting*, CC Docket No. 04-141, Report and Order, 19 FCC Rcd 22340, 22342, para. 3 (2004) (*Form 477 Data Collection Order*); *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, ET Docket No. 04-295, RM 10865, Notice of Proposed Rulemaking and Declaratory Ruling, 19 FCC Rcd 15676, 15692, para. 35 (2004) (*CALEA NPRM*). Although this definition remains in effect today, the Commission has indicated that it may examine the definition and modify it for future purposes. *See Form 477 Data Collection Order*, 19 FCC Rcd at 22347-48, para. 14.

[16] *See Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4821, para. 36; *Wireline Broadband NPRM*, 17 FCC Rcd at 3027 n.27 (*citing Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11516-17, para. 33 (1998) (*Report to Congress*) (Internet access services are services that "alter the format of information through computer processing applications such as protocol conversion and interaction with stored data.")); *see also* 47 U.S.C. § 231(e)(4); *Reno v. American Civil Liberties Union*, 521 U.S. 844, 851 (1997).

[17] *NCTA v. Brand X*, slip op. at 6 (citing *Cable Modem Declaratory Ruling*, 19 FCC Rcd at 4823, para. 38) & 18-19. That is, the transmission component of wireline broadband Internet access service is "'part and parcel' of [that service] and is integral to [that service's] other capabilities." *NCTA v. Brand X*, slip op. at 26 (quoting *Cable Modem Declaratory Ruling*, 19 FCC Rcd at 4823, para. 39).

[18] *Wireline Broadband NPRM*, 17 FCC Rcd at 3031, para. 21.

[19] *Id.*

[20] *Id.* at 3030, para. 20.

gigabit Ethernet service, and other high-capacity special access services, that carriers and end users have traditionally used for basic transmission purposes.[21] That is, these services lack the key characteristics of wireline broadband Internet access service – they do not inextricably intertwine transmission with information-processing capabilities.[22] Because carriers and end users typically use these services for basic transmission purposes, these services are telecommunications services under the statutory definitions.[23] These broadband telecommunications services remain subject to current Title II requirements.[24]

10. In the *Wireline Broadband NPRM*, the Commission tentatively concluded that wireline broadband Internet access service is an information service when provided over an entity's own facilities, and that the underlying transmission component of such service constituted "telecommunications" and not a "telecommunications service" under the Act.[25] The Commission invited comment on these tentative conclusions and its prior conclusion that "an entity is providing a 'telecommunications service' to the extent that such entity provides only broadband transmission service on a stand-alone basis, without a broadband Internet Access service."[26] Finally, the Commission sought comment on the extent to which any actions it might take in this proceeding would affect other regulatory obligations.[27]

11. In addressing the issues before us, we draw from the records of several proceedings, including the *Wireline Broadband* proceeding, where the Commission invited comment on technological and market-related issues pertaining to wireline broadband Internet access services,[28] and the *Incumbent LEC Broadband* proceeding, where the Commission invited comment on technological and market-related issues relating to our tariffing rules for incumbent LECs' broadband telecommunications services.[29]

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[21] *See* Petition of the Verizon Telephone Companies for Forbearance under 47 U.S.C. § 160(c) from Title II and *Computer Inquiry* Rules with Respect to Their Broadband Services, WC Docket No. 04-440, at 11-12 (filed Dec. 20, 2004). Similarly, this Order does not disturb incumbent LECs' unbundled network element (UNE) obligations or competitive carriers' rights to obtain UNEs. *See infra* Part VI.E.

[22] *NCTA v. Brand X*, slip op. at 26.

[23] *See* 47 U.S.C. § 153(43), (46); *NCTA v. Brand X*, slip op. at 26-27.

[24] We note that the Commission is currently considering changes to this framework in a number of related proceedings. *See, e.g., Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, CC. Docket No. 01-337, Notice of Proposed Rulemaking, 16 FCC Rcd 22745 (2001) (*Incumbent LEC Broadband NPRM*); *Computer III Further Remand Further Notice*, 13 FCC Rcd at 6046, para. 6 (inviting comment on whether the Commission should eliminate the ONA, CEI, and other *Computer III* requirements); *Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-10593, Order and Notice of Proposed Rulemaking, FCC 05-18 (rel. Jan. 31, 2005) (*Special Access NPRM*); *see also supra* note 15.

[25] *Wireline Broadband NPRM*, 17 FCC Rcd at 3032-33, paras. 24-25.

[26] *Id.* at 3033, para. 26 n.60 (citations omitted).

[27] *Id.* at 3043-47, paras. 54-61, & 3048-52, paras. 65-74.

[28] *Id.* at 3040-41, paras. 43-44; *see id.* at 3043-47, paras. 54-61, & 3048-52, paras. 65-74 (inviting comment on what effect classifying wireline broadband Internet access service as an information service would have on regulatory obligations other than those under the Commission's *Computer Inquiry* rules).

[29] *Incumbent LEC Broadband NPRM*, 16 FCC Rcd at 22748, para. 7. We also include the *Computer III Remand* proceeding to the extent it addresses wireline broadband Internet access service as well as the *Verizon Fiber-to-the-Premises* proceedings. *See, e.g., Computer III Further Remand Further Notice*, 13 FCC Rcd at 6040; *Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with Regard to Broadband* (continued . . .)

Consistent with the scope of the *Wireline Broadband* proceeding, we restrict our decisions in this Order to only wireline broadband Internet access services and those wireline broadband technologies that have been utilized for such Internet access services.[30]

IV. CLASSIFICATION OF WIRELINE BROADBAND INTERNET ACCESS SERVICE

12. In this section, we affirm our tentative conclusion "that wireline broadband Internet access service provided over a provider's own facilities is an information service."[31] This classification is consistent both with the Commission's classification of cable modem service, as affirmed by the Supreme Court in *Brand X*, and with the Commission's earlier determination in its *Report to Congress* that Internet access service is an information service.[32]

(continued from previous page)
Services Provided Via Fiber to the Premises, WC Docket No. 04-242 (filed June 28, 2004) (*Verizon Fiber-to-the-Premises Forbearance Petition*); *Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided Via Fiber to the Premises*, WC Docket No. 04-242 (filed June 28, 2004) (*Verizon Fiber-to-the-Premises Declaratory Ruling and Waiver Petition*). For clarity, we include the docket number in references to documents filed in proceedings other than the *Wireline Broadband* proceeding.

[30] *See supra* note 15. To be clear, this Order does not address classification issues of broadband Internet access services provided over cable, wireless (satellite, mobile, or fixed wireless), or power line (electric grid) networks. We will address, where appropriate, any regulatory treatment and other issues associated with such alternative platforms in separate proceedings in a manner not inconsistent with the analysis and conclusions in this Order. *See, e.g.*, *Amendment of Part 15 Regarding New Requirements And Measurement Guidelines For Access Broadband Over Power Line Systems*, Report and Order, ET Docket No. 04-37, 19 FCC Rcd 21265 (2004); *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4839-54, paras. 72-112 (notice of proposed rulemaking); *see also infra* Part VIII (initiating a rulemaking on consumer protection in the broadband era).

[31] *See Wireline Broadband NPRM*, 17 FCC Rcd at 3032-33, para. 24. As discussed more fully below, we disagree with those commenters that argue that wireline broadband Internet access service necessarily includes *both* an information service *and* a telecommunications service. *See, e.g.*, California Commission Comments at 10-14 (wireline broadband Internet access is in part a telecommunications service); Ohio Commission Comments at 14-15 (same); Illinois Commission Comments at 10 (distinct telecommunications service and information service); New York Commission Comments at 3-4 (same); Allegiance Reply at 28 (wireline broadband Internet access service involves both information service and telecommunications service); NRTA Reply at 2 (same). Those arguments are premised on an assumption, which this Order fundamentally alters, that the carrier continues to be under a Commission-imposed compulsion to offer the transmission underlying that service as a telecommunications service. *See, e.g.*, California Commission Comments at 13-14; Illinois Commission Comments at 9-11; New York Commission Comments at 4.

[32] *See NCTA v. Brand X*, slip op. at 13-14; *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4820-24, paras. 34-41; *Report to Congress*, 13 FCC Rcd at 11511, para. 21 (finding that "Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their services 'via telecommunications'"); *see also* 47 U.S.C. § 231(e)(4) (excluding "telecommunications services" from the definition of "Internet access service"). Although the Commission has not been entirely consistent on this point, we agree for the wireline broadband Internet access described in this Order with the past Commission pronouncements that the categories of "information service" and "telecommunications service" are mutually exclusive. *Compare Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4823, paras. 39-40, & *Report to Congress*, 13 FCC Rcd at 11516-26, paras. 33-48, & 11530, para. 59 *with 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, 24029, paras. 35-37 (1998) (*Advanced Services Order and NPRM*); *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Remand, 15
(continued . . .)

13. The Act defines "information service" as

> the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.[33]

The Act also defines "telecommunications service" as "the offering of telecommunications 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"[34] and "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[35]

14. Applying the definitions of "information service," "telecommunications," and "telecommunications service," we conclude that wireline broadband Internet access service provided over a provider's own facilities is appropriately classified as an information service because its providers offer a single, integrated service (*i.e.*, Internet access) to end users.[36] That is, like cable modem service (which is usually provided over the provider's own facilities), wireline broadband Internet access service combines computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications (*e.g.*, e-mail, web pages, and newsgroups).[37] These applications encompass the capability for "generating, acquiring, storing, transforming, processing,

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FCC Rcd 385, 394-95, para. 21 (1999) (*Advanced Services Order on Remand*); *Communications Assistance for Law Enforcement Act*, CC Docket No. 97-213, Second Report and Order, 15 FCC Rcd 7105, 7120, para. 27 (1999) (*CALEA Second Report and Order*); *Policy and Rules Concerning the Interstate, Interexchange Marketplace; Implementation of Section 254(g) of the Communications Act of 1934, as amended; 1998 Biennial Regulatory Review – Review of Customer Premises Equipment and Enhanced Services Unbundling Rules in the Interexchange, Exchange Access and Local Exchange Markets*, CC Docket Nos. 96-61 & 98-183, Report and Order, 16 FCC Rcd 7418, 7447, paras. 49-50 (2001) (*CPE Bundling Order*); *see also* BellSouth Reply at 11; Covad Comments at 66; Qwest Comments at 8; Verizon Comments at 8. *But see* Allegiance Comments at 11-12 (arguing wireline broadband Internet access "bundle[s]" an information service and a telecommunications service).

[33] 47 U.S.C. § 153(20).

[34] 47 U.S.C. § 153(46).

[35] 47 U.S.C. § 153(43).

[36] Indeed, in *Brand X*, quoting from the *Report to Congress*, the Supreme Court stated that, from an end user's perspective, cable modem service does not provide a transparent ability to transmit information. *See NCTA v. Brand X*, slip op. at 26-29; *see also Report to Congress*, 13 FCC Rcd at 11529, para. 58 (stating that "[a]n offering that constitutes a single service from the end user's standpoint is not subject to common carrier regulation simply by virtue of the fact that it involves telecommunications components").

[37] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4822, para. 38 (concluding that cable modem service combines "the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications," and is therefore an information service); *see also Report to Congress*, 13 FCC Rcd at 11536, para. 73.

retrieving, utilizing, or making available information via telecommunications," and taken together constitute an information service as defined by the Act.[38]

15. The capabilities of wireline broadband Internet access service demonstrate that this service, like cable modem service, provides end users more than pure transmission, "between or among points selected by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[39] Because wireline broadband Internet access service inextricably combines the offering of powerful computer capabilities with telecommunications, we conclude that it falls within the class of services identified in the Act as "information services."[40] The information service classification applies regardless of whether subscribers use all of the functions and capabilities provided as part of the service (*e.g.*, e-mail or web-hosting), and whether every wireline broadband Internet access service provider offers each function and capability that could be included in that service.[41] Indeed, as with cable modem service, an end user of wireline broadband Internet access service cannot reach a third party's web site without access to the Domain Naming Service (DNS) capability "which (among other things) matches the Web site address the end user types into his browser (or 'clicks' on with his mouse) with the IP address of the Web page's host server."[42] The end user therefore receives more than transparent transmission whenever he or she accesses the Internet.

16. There is no reason to classify wireline broadband Internet access services differently depending on who owns the transmission facilities.[43] From the end user's perspective, an information service is being offered regardless of whether a wireline broadband Internet access service provider self-provides the transmission component or provides the service over transmission facilities that it does not own. As the Commission indicated in its *Report to Congress*, what matters is the finished product made available through a service rather than the facilities used to provide it.[44] The end user of wireline broadband Internet access service receives an integrated package of transmission and information processing capabilities from the provider, and the identity of the owner of the transmission facilities does not affect

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[38] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4823-24, para. 41. In contrast, to the extent a service does not provide these capabilities, but merely provides transmission whether narrowband or broadband, it would not be an information service. *See supra* para. 9 (explaining the difference between wireline broadband Internet access service and other wireline broadband transmission services).

[39] 47 U.S.C. § 153(43) (defining "telecommunications"); *cf. NCTA v. Brand X*, slip op. at 27 (finding reasonable the Commission's conclusion that an end user of cable modem service "is equally using the information service provided by the cable company as when he accesses the company's own Web site, its e-mail service, or his personal Web page"); *see also supra* note 36.

[40] *Wireline Broadband NPRM*, 17 FCC Rcd at 3027, para. 13.

[41] *Cable Modem Declaratory Ruling*, at para. 38. This classification appears consistent with Congress's understanding of the nature of Internet access services. Specifically, in section 230(f)(2) of the Act, Congress defined the term "interactive computer service" to mean "any *information service*, . . . including specifically *a service or system that provides access to the Internet* . . . ." 47 U.S.C. § 230(f)(2) (emphasis added).

[42] *NCTA v. Brand X*, slip op. at 27 (citation omitted).

[43] *See Wireline Broadband NPRM*, 17 FCC Rcd at 3027-28, para. 14 (citing *Report to Congress*, 13 FCC Rcd at 11534, para. 69) (concluding that non-facilities-based ISPs are information service providers)).

[44] *Report to Congress*, 13 FCC Rcd at 11530, para. 59 (noting "Congress's direction that the classification of a provider should not depend on the type of facilities used . . . [but] rather on the nature of the service being offered to customers"); *see also Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4821, para. 35; *Wireline Broadband NPRM*, 17 FCC Rcd at 3032-33, paras. 24-25, & 3052-53, para. 75.

the nature of the service to the end user.[45] Thus, in addition to affirming our tentative conclusion above "that wireline broadband Internet access service provided over a provider's own facilities is an information service,"[46] we also make clear that wireline broadband Internet access service is an information service when the provider of the retail service does not provide the service over its own transmission facilities.

17. Not only is the classification of wireline broadband Internet access service as an information service consistent with *Brand X*, but this classification, in our view, best facilitates the goals of the Act, including promoting the ubiquitous availability of broadband Internet access services to all Americans. Moreover, by classifying both wireline broadband Internet access service and cable modem service as information services, and by adopting the attached NPRM, we move closer to crafting an analytical framework that is consistent, to the extent possible, across multiple platforms that support competing services.[47]

V. REGULATION OF WIRELINE BROADBAND INTERNET ACCESS SERVICE PROVIDERS

18. The broadband Internet access services marketplace is vastly different from the marketplace of over three decades ago when access requirements to the transmission underlying wireline-based information services were first developed and the relative cost/benefit analysis rendered a different result.[48] We base our decision to eliminate these requirements on a number of factors.

19. First, broadband Internet access services in most parts of the country are offered by two established platform providers, which continue to expand rapidly, and by several existing and emerging platforms and providers, intermodal and intramodal alike. Second, the record shows that the existing regulations constrain technological advances and deter broadband infrastructure investment by creating disincentives to the deployment of facilities capable of providing innovative broadband Internet access services. Third, fast-paced technological changes and new consumer demands are causing a rapid evolution in the marketplace for these services. Wireline broadband carriers are constrained in their ability to respond to these changes in an efficient, effective, or timely manner as a result of the limitations imposed by these regulations. Fourth, the marketplace should create incentives for facilities-based wireline broadband providers to make broadband transmission available on a wholesale basis without these requirements. Finally, the directives of section 706 of the 1996 Act require that we ensure that our broadband policies promote infrastructure investment, consistent with our other obligations under the Act.

20. To provide a context for our decisions, we briefly describe the history of the *Computer Inquiry* regime and summarize its purposes and basic requirements. We explain how these requirements currently apply to facilities-based wireline broadband Internet access providers, and why these rules should no longer apply. Finally, we describe how our new framework will further the nation's broadband objectives.

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[45] *See, e.g.*, *NCTA v. Brand X*, slip op. at 24-25 (recognizing that the statutory definitions do not distinguish between facilities-based ISPs and other ISPs); *see also* Qwest Comments at 6-8; SBC Comments at 16-18; Verizon Reply at 6-7.

[46] *See supra* para. 12; *Wireline Broadband NPRM*, 17 FCC Rcd at 3032-33, para. 24.

[47] *See Wireline Broadband NPRM*, 17 FCC Rcd at 3021-23, paras. 3-7.

[48] *See NCTA v. Brand X*, slip op. at 30.

A. Computer Inquiry Regime

1. History of the *Computer Inquiry*

21. Wireline broadband Internet access services provided by facilities-based carriers are currently governed by rules established in the Commission's *Computer Inquiry* proceedings. The Commission first examined the relationship between communications and computer processing in *Computer I*,[49] a proceeding that began almost four decades ago in an era far different from today in terms of the technological, marketplace, and regulatory environment for telecommunications carriers.[50] In the *Notice of Inquiry* that opened that proceeding, the Commission explained that communications common carriers were rapidly becoming equipped to enter into the data processing field.[51] For example, the Commission described the activities of Western Union in establishing computer centers in key cities to provide a variety of data processing, storage, and retrieval services to the public.[52] While noting that the Bell System had not yet revealed any plan to provide data processing services similar to Western Union's, the Commission discussed technological steps the Bell System companies were taking that would permit them to do so, including converting all central offices to electronic switching.[53] Recognizing that common carriers were or would be offering services that were competitive with those sold by nonregulated entities (*e.g.*, computer manufacturers), and that such entities would be dependent upon common carriers for reasonably priced communication facilities and services, the Commission sought comment on the circumstances under which data processing, computer information, and message switching services were or should be subject to the provisions of the Communications Act.[54]

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[49] *See Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, Docket No. 16979, Notice of Inquiry, 7 FCC 2d 11 (1966) (*Computer I NOI*); *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, Docket No. 16979, Final Decision and Order, 28 FCC 2d 267 (1971) (*Computer I Final Decision*), *aff'd in part sub nom. GTE Service Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, 40 FCC 2d 293 (1973) (*Computer I*).

[50] *Wireline Broadband NPRM*, 17 FCC Rcd at 3038, para. 38; *see NCTA v. Brand X*, slip op. at 30 ("Unlike at the time of *Computer II*, substitute forms of Internet transmission exist today . . . .").

[51] *Computer I NOI*, 7 FCC 2d at 13-14, para. 10.

[52] *Id.* Western Union would also arrange to design, procure, and install all hardware necessary for a fully integrated data processing and communication system for individual customers, in addition to managing such a system for the customer. *Id.*

[53] *Id.* at 14, para. 11. The Commission also noted that there was evidence of a trend among several major domestic and international common carriers:

> to program their computers not only for switching services, but also for the storage, processing, and retrieval of various types of business and management data of entities desiring to subscribe therefor in lieu of such industries providing this service to themselves on an in-house basis or contracting with computer firms for the service.

Id.

[54] *Id.* at 15-16, paras. 15, 18; *see also Wireline Broadband NPRM*, 17 FCC Rcd at 3038, para. 38.

22. In *Computer I*, the Commission determined that the data processing industry was competitive[55] and, therefore, the Commission should not assert regulatory authority over it.[56] In refraining from regulating data processing services, however, the Commission distinguished them from regulated communications services. The Commission initially determined that services combining both communications and data processing functions (*i.e.*, "hybrid" services) would be classified on a case-by-case basis.[57] The Commission also permitted common carriers to furnish data processing services through a "maximum separation" policy to keep them from favoring their own data processing activities through anticompetitive activities.[58]

2. Current *Computer Inquiry* Requirements

a) *Computer II* Requirements

23. Even as the *Computer I* rules were being implemented, technological developments rendered them nearly obsolete as it became harder to distinguish communications from data processing or computing.[59] To respond to the confluence of technology in the offering of communications and data processing services and to give greater regulatory certainty than that afforded by a case-by-case review based on the nature of the processing performed, the Commission created a framework in *Computer II* that defined and distinguished between "basic services"[60] and "enhanced services."[61] It determined that

[55] The Commission defined "data processing" at that time as "use of a computer for the processing of information as distinguished from circuit or message-switching." *E.g.*, *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communications Services and Facilities*, Tentative Decision of the Commission, 28 FCC 2d 291, 295, para. 15 (1970) (*Computer I Tentative Decision*).

[56] *Wireline Broadband NPRM*, 17 FCC Rcd at 3038, para. 38 (citing *Computer I Final Decision*, 28 FCC 2d at 270 para. 11).

[57] *Computer I Final Decision*, 28 FCC 2d at 276-79.

[58] *Wireline Broadband NPRM*, 17 FCC Rcd at 3038, para. 38 (quoting *Computer I Final Decision*, 28 FCC 2d at 270-71, para. 12). "Maximum separation" required a separate corporate entity with separate accounts, officers, personnel, equipment, and facilities. *See Computer II Final Decision*, 77 FCC 2d at 391 n.2 (noting that, in addition, these rules prohibited the carrier from promoting the data processing services offered by the separate subsidiary).

[59] *CCIA v. FCC*, 693 F.2d at 204. Specifically, the phenomenon of distributed processing allowed computers and terminals to perform both data processing and communications control applications within the network and at the customer's premises. *See Computer II Final Decision*, 77 FCC 2d at 391, para. 19.

[60] *See Computer II Final Decision*, 77 FCC 2d at 415-16, para. 83. Basic service is the offering of "a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information." *Id.* at 420, para. 96.

[61] Enhanced service "combines basic service with computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information, or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information." *Id.* at 387, para. 5. In other words, an "enhanced service is any offering over the telecommunications network which is more than a basic transmission service." *Id.* at 420, para. 97. While the Commission used the term "enhanced service" in its *Computer Inquiry* decisions and the Telecommunications Act of 1996 (1996 Act) uses the term "information service," the Commission has determined that "Congress intended the categories of 'telecommunications service' and 'information service' to parallel the definitions of 'basic service' and 'enhanced service' developed in [the] *Computer II* proceeding. . . ." *NCTA v. Brand X*, slip op. at 21; *Report to Congress*, 13 FCC Rcd at 11511, para. 21. (continued . . .)

enhanced services were not within the scope of its Title II jurisdiction but rather were within its ancillary jurisdiction under Title I.[62]

24. Pursuant to its ancillary jurisdiction, the Commission required facilities-based common carriers to provide the basic transmission services underlying their enhanced services on a nondiscriminatory basis pursuant to tariffs governed by Title II of the Act.[63] These carriers thus offered the underlying basic service at the same prices, terms, and conditions, to all enhanced service providers, including their own enhanced services operations.[64]

25. For AT&T, which at the time owned the local BOCs, the Commission adopted additional measures. In particular, it determined that the same type of structural separation requirement imposed in *Computer I* (*i.e.*, the requirement to offer enhanced services only through a separate corporate entity) was necessary to protect the ratepayers against being charged rates for regulated services that cross subsidized the parent corporation's competitive enhanced services operations.[65] The Commission also determined that structural separation was necessary to protect the public against such anticompetitive activities as denial of access and predatory pricing by these "monopoly telephone companies exercising significant market power on a broad geographic basis."[66] It concluded that other facilities-based carriers should not be subject to this "maximum separation" requirement.[67] In addition, in its *Computer II Reconsideration*

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We will generally use the term "information service" in this Order except when providing historical context to previous Commission actions.

[62] *See, e.g.*, *Computer II Final Decision*, 77 FCC 2d at 435, para. 132.

[63] *Id.* at 475, para. 231; *see id.* at 435, para. 132 (discussing jurisdictional basis for the Commission's *Computer II* actions); *see also CCIA v. FCC*, 693 F.3d at 211-14 (affirming the Commission's reliance on its ancillary jurisdiction in imposing structural safeguards on AT&T's provision of enhanced services); *NCTA v. Brand X*, slip op. at 13 (describing *Computer II* and stating that the Commission "remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction").

[64] *See CCIA v. FCC*, 693 F.2d at 205; *see also Computer II Final Decision*, 77 FCC 2d at 474-75, para. 231. We note that the *Computer II* "unbundling" of basic services requirement is separate and distinct from the obligation created in section 251(c)(3) of the Communications Act, requiring incumbent LECs to provide access to UNEs. 47 U.S.C. § 251(c)(3). To avoid any confusion between these obligations, where possible, we use alternative phrases to describe *Computer II*'s "unbundling" requirement. Moreover, as we discuss in part VI.E, below, the decisions contained in this Order have no affect on section 251(c) obligations of incumbent LECs, including UNE availability issues as reflected in our *Triennial Review* proceeding. 47 U.S.C. § 251(c); *see also, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17019-21, paras. 58-60, & 17067-77, paras. 135-53.

[65] *Computer II Final Decision*, 77 FCC 2d at 467-68, para. 216.

[66] *Id.*, 77 FCC 2d at 463, para. 208, & 468, para. 220; *see also id.*, 77 FCC 2d at 486, para. 261 (stating that the Commission "essentially retained the degree of separation required in the current rules [*i.e.*, *Computer I*'s 'maximum separation']"). Among other things, *Computer II*'s structural separation requirements include separate books and officers as well as the use of separate operating, marketing, installation and maintenance personnel, and separate computer facilities in the provision of enhanced services. *Id.*, 77 FCC 2d at 486, para. 261.

[67] *See id.*, 77 FCC 2d at 435, para. 132. We note that the Commission initially imposed the separate subsidiary requirement on GTE, but on reconsideration of the *Computer II Final Decision*, the Commission decided to exempt GTE from that requirement. *Computer II Reconsideration Order*, 84 FCC 2d at 72-75, paras. 64-71. Today, this *Computer II* requirement applies only to the BOCs although, as explained in Part V.A.2.b, below, through the regime established in *Computer III*, BOCs may also provide enhanced services through their telephone operating companies.

Order, the Commission approved a process whereby parties could request waiver relief from the structural separation rules.[68]

b) *Computer III* Requirements

26. Years after the conclusion of the *Computer II* proceeding,[69] the Commission determined that the cost of decreased efficiency and innovation imposed by the structural safeguards of *Computer II* outweighed their benefits.[70] The Commission therefore replaced structural separation with a regime of nonstructural safeguards in its *Computer III* decisions. This framework maintained the existing basic and enhanced service categories and adopted comparably efficient interconnection (CEI) and ONA requirements as a replacement for the *Computer II* structural separation requirements for AT&T and the BOCs.[71] The CEI standards were intended to be an interim measure, necessary only until the BOCs had Commission-approved ONA plans in place.[72]

27. The CEI obligations require a BOC's enhanced services operations to take under tariff the basic services it uses in offering enhanced services.[73] These basic services must be available to other enhanced service providers and users under the same tariffs on an unbundled and functionally equal basis. In addition, the BOC may not discriminate in favor of its own enhanced services operations in providing CEI and must file reports to substantiate that nondiscrimination.[74] BOCs also must post service-specific CEI plans on the Internet[75] (*i.e.*, one CEI plan per service or group of services) that describe and

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[68] *Computer II Reconsideration Order*, 84 FCC 2d at 58, para. 21.

[69] Between the release of the *Computer II Final Decision* and the *Computer III Phase I Order*, the D.C. District Court approved the Modification of Final Judgment (MFJ), which required AT&T to divest itself of the BOCs and most of the assets held by the BOCs. *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). When the *Computer III* non-structural safeguards were initially adopted, they applied only to AT&T and the BOCs as they were the only carriers subject to *Computer II* structural separation requirements. *See supra* n.67. The Commission eliminated most of these requirements for AT&T when it declared AT&T non-dominant in 1995. *See infra* note 89.

[70] *See Computer III Phase I Order*, 104 FCC 2d at 964, para. 3.

[71] *Id.*, at 964, para. 4. The Commission also adopted rules relating to customer proprietary network information (CPNI), network disclosure, and cost allocation. *Id.* at 1077-92, paras. 241-65 (network disclosure and CPNI obligations); *Separation of Costs of Regulated Telephone Service from Costs of Nonregulated Activities*, CC Docket No. 86-111, Report and Order, 2 FCC Rcd 1298 (1986) (*Joint Cost Order*), *recon.* 2 FCC Rcd 6283, *further recon.* 3 FCC Rcd 6701 (1988), *aff'd sub nom. Southwestern Bell Corp. v. FCC*, 896 F.2d 1328 (D.C. Cir. 1990) (cost allocation rules). In a series of subsequent orders, the Commission eliminated or scaled back several of these requirements. *See, e.g.*, *Computer III Further Remand Order*, 14 FCC Rcd at 4318-23, paras. 44-53 (1999) (relieving carriers of their *Computer Inquiry* network information disclosure requirements except with respect to the customer premises equipment (CPE) disclosure obligation as applied to incumbent LECs).

[72] *Computer III Phase I Order*, 104 FCC 2d at 964, para. 4.

[73] *Computer III Further Remand Order*, 14 FCC Rcd at 4297-98, para. 13. We note that SBC's advanced services affiliate provides basic services under contracts posted on the Internet, rather than under tariffs, but these services are nevertheless made generally available to the public. *See Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, 17 FCC Rcd 27000 (2003) (*SBC Advanced Services Forbearance Order*).

[74] *Computer III Phase I Order*, 104 FCC 2d at 964, para. 4.

[75] *Computer III Further Remand Order*, 14 FCC Rcd at 4291, para. 4; *Computer III Further Remand Reconsideration Order*, 14 FCC Rcd at 21629, para. 6.

demonstrate how a BOC is providing unaffiliated enhanced service providers with equal access to its basic services by its compliance with nine CEI parameters.[76]

28. Unlike CEI plans, ONA plans apply to enhanced services generally and impose more specific and comprehensive unbundling requirements on the BOCs, not unlike section 251's unbundling obligations. Through ONA, BOCs must separate key components of their basic services into "basic service elements," and make those components, or building blocks, available to unaffiliated enhanced service providers to build new services regardless of whether the BOC's affiliated enhanced services operations use these unbundled components.[77] In refining its rules for filing ONA plans, the Commission subsequently categorized the BOCs' "basic service elements" into four groups, which the BOCs are required to make available to information services providers.[78] In a subsequent order, the Commission also determined that certain operations support systems (OSS) capabilities – namely service order entry and status; trouble reporting and status; diagnostics, monitoring, testing, and network reconfiguration; and traffic data collection – are ONA services under the Commission's ONA rules.[79] Finally, the ONA rules contain

[76] *Computer III Further Remand Order*, 14 FCC Rcd at 4291, para. 4; *Computer III Further Remand Reconsideration Order*, 14 FCC Rcd at 21629, para. 6; *see Computer III Phase I Order*, 104 FCC 2d at 1039-42, paras. 155-65. These nine CEI parameters are: (1) the "interface functionality" parameter (the BOC must make available standardized hardware and software interfaces that are able to support the transmission, switching, and signaling functions identical to those used in the BOC's enhanced service, as well as the information and technical specifications associated with these interfaces); (2) the "basic service unbundling" parameter (the BOC must separate the basic service functions that underlie its enhanced service offering from other basic service offerings and must assign a specific rate to them for tariffing purposes); (3) the "resale" parameter (the BOC must "take" basic services used in its enhanced service offerings at their unbundled tariffed rates); (4) the "technical characteristics" parameter (the BOC must provide basic services with technical characteristics that are equal to those used by the BOC in its enhanced service offering); (5) the installation, maintenance and repair parameter (the BOC must provide the same installation, maintenance, and repair intervals to unaffiliated enhanced service providers as it does to its own enhanced services operations, with associated reporting requirements); (6) the end-user access parameter (if a BOC offers its end users the ability to use abbreviated dialing or signaling to activate or access the BOC's enhanced offerings, it must provide the same capabilities to end users all of enhanced services that use the BOC's facilities); (7) the "CEI availability" parameter (the BOC's CEI plan must be available and fully operational the day that the BOC posts it on the Internet, and the BOC must give enhanced services competitors the opportunity to test the CEI facilities and services for their enhanced service offerings); (8) the transport costs minimization parameter (the BOC must provide competitors with interconnection facilities that minimize their transport costs); and (9) the "recipients of CEI" parameter (the BOC cannot restrict the availability of a CEI offering to any particular class of customer or enhanced service competitor). *Computer III Further Remand Order*, 14 FCC Rcd at 4297-99, para. 13.

[77] *Computer III Phase I Order*, 104 FCC 2d at 1064, para. 214.

[78] These four groups are: (1) basic serving arrangements (BSAs), which are fundamental tariffed switching and transport services that allow the ISP to communicate with its customers through the BOC network, *see Filing and Review of Open Network Architecture Plans*, 4 FCC Rcd 1, 36, para. 56 (1988) (*BOC ONA Order*) (noting that examples of BSAs include line-side and trunk-side circuit-switched service and line-side and trunk-side packet-switched service); (2) basic service elements (BSEs), which are optional unbundled features that an ISP may require or find useful in configuring an enhanced service, *see id.*, 4 FCC Rcd at 36, para. 57 (providing calling number identification as an example of a BSE); (3) complementary network services (CSAs), which are optional unbundled basic service features that an end user may obtain from a carrier in order to access or receive an enhanced service such as call waiting and call forwarding, *see id.* (stating that stutter dial tone is a CNS); and (4) ancillary network services (ANSs), which are non-common carrier services that an ISP might find useful such as billing and collection, and protocol conversion, *see id.*

[79] *Filing and Review of Open Network Architecture Plans*, 5 FCC Rcd 3084, 3087, para. 26 (1990) (*BOC ONA Reconsideration Order*).

certain procedural requirements governing the amendment of ONA plans. These procedures allow information service providers to request and receive new ONA services and impose various annual, semi-annual, and quarterly reporting requirements.[80]

29. When Congress enacted the 1996 Act, it created new statutory terms (*i.e.*, "information service" and "telecommunications service") that substantially incorporated the dichotomy between basic and enhanced services into the Communications Act.[81] As we noted above, although the 1996 Act uses "information service" and "telecommunications service" instead of "enhanced service" and "basic service," the Commission has previously determined that Congress intended the statutory categories to parallel the categories the Commission established in the *Computer Inquiry* proceeding.[82] More specifically, the Commission found that "all of the services that the Commission has previously considered to be 'enhanced services' are 'information services.'"[83]

c) Current Applicability of *Computer Inquiry* Rules to Wireline Broadband Internet Access Service Providers

30. As noted above, the Commission's structural separation, CEI, and ONA rules apply only to the BOCs. BOCs demonstrate their compliance with the CEI parameters through plans posted on their web sites, and changes to these plans may be made without Commission approval.[84] All BOCs have ONA

[80] *Computer III Phase I Order*, 104 FCC 2d at 1066, para. 218. In 1991, the Commission determined that the BOCs' ONA plans were a sufficient enough safeguard against discrimination to warrant elimination of the *Computer II* structural separation requirement for all enhanced services, notwithstanding their failure to comply fully with the *Computer III* rules. *BOC Safeguards Order*, 6 FCC Rcd at 7599-7601, paras. 62-64. In this same order, the Commission determined that its cost accounting safeguards, in addition to adoption of price cap regulation for the LECs, was a sufficient enough safeguard against cross subsidization to warrant elimination of structural separation. *Id.* at 7577-88, paras. 12-41. In 1994, the Ninth Circuit affirmed the cross subsidization determination in the *BOC Safeguards Order*, but vacated and remanded the portion addressing ONA plans because it found that the Commission had not sufficiently explained its conclusion that removing structural separation requirements was in the public interest, given that the ONA requirements the Commission implemented after *Computer III* did not require fundamental unbundling of the BOCs' networks. *See California III*, 39 F.3d at 927-30 (citing *BOC Safeguards Order*, 6 FCC Rcd at 7571). In 1995, the Commission clarified that the Ninth Circuit's partial vacatur of the *BOC Safeguards Order* reinstated the CEI plan requirements and that the BOCs were still required to comply with their ONA plans pending the Commission's review of the ONA regime. *Computer III Further Remand Notice*, 10 FCC Rcd at 8369, para. 11. The Commission also determined that the BOCs could continue to offer existing enhanced services pursuant to the ONA plans that the Commission had approved prior to the Ninth Circuit's decision in *California III*. *See Computer III Further Remand Notice*, 10 FCC Rcd at 8368-69, para. 10 (citing *Bell Operating Companies' Joint Petition for Waiver of Computer II Rules*, Memorandum Opinion and Order, DA 95-36 (Com. Car. Bur. Jan. 11, 1995) (*Interim Waiver Order*)).

[81] 47 U.S.C. 153(20), (46); *NCTA v. Brand X*, slip op. at 21.

[82] *See Report to Congress*, 13 FCC Rcd at 11511, para. 21; *see also NCTA v. Brand X*, slip op. at 21-23 (discussing *Report to Congress*).

[83] *See Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307, 3318 n.64 (2004) (*Pulver.com Declaratory Ruling*); *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21955, para. 102 (1996).

[84] *See Computer III Further Remand Order*, 14 FCC Rcd at 4302, paras. 19-20. We note that these carriers are required to notify the Commission of any alteration to a CEI plan. *Id.* at 4302, para. 20 (notice to the Bureau must include the Internet address and path to the relevant CEI plan or amended plan).

plans on file with the Commission.[85] A BOC that seeks to offer an information service that would use a new BSE, or a new configuration of BSEs, must amend its ONA plan at least 90 days before it proposes to offer that information service and obtain Commission approval of the amendments prior to using the new BSE or BSE configuration for its information service.[86] Additionally, a BOC must consider and respond to an enhanced services provider's request for a new BSE within 120 days of receipt of that request.[87] In evaluating this request, the BOC must take into account market demand, utility to enhanced services providers, feasibility of offering the service based on its cost, and technical feasibility.[88] Last, as mentioned above, BOCs continue to be subject to ONA reporting requirements.[89]

31. All facilities-based wireline carriers that own common carrier transmission facilities and provide enhanced services must "acquire transmission capacity pursuant to the same prices, terms, and conditions reflected in their tariffs when their own facilities are utilized. Other offerors of enhanced services would likewise be able to use such a carrier's facilities under the same terms and conditions."[90] This *Computer II* obligation, however, has been applied exclusively to traditional wireline services and facilities to date.[91] By contrast, the *Computer II* obligations do not apply to cable modem service providers or to facilities-based enhanced services providers other than traditional wireline carriers.[92]

B. Elimination of the *Computer Inquiry* Requirements

1. Broadband Internet Access Service Technology

32. In this section, we describe the technological attributes applicable to broadband Internet access service that inform our decision-making in this Order. The technology used to build networks, and the purposes for which they are built, are fundamentally changing. These changes are rapidly breaking down the formerly rigid barriers that separated one network from another.

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[85] *See Computer III Further Remand Notice*, 10 FCC Rcd at 8366-67, para. 7 & nn.21, 22.

[86] *See Computer III Further Remand Further Notice*, 13 FCC Rcd at 6086, para. 81. We define BSE *supra* at paragraph 28 and note 78.

[87] *See, e.g.*, *Computer III Further Remand Further Notice*, 13 FCC Rcd at 6087, paras. 83-84.

[88] *Id.*

[89] AT&T, while never subject to annual and biannual ONA reporting requirements, currently remains subject to a requirement that it submit annual affidavits affirming that it has followed installation procedures in its modified ONA Plan approved by the Commission in 1988. This requirement was never formally eliminated when AT&T was relieved of its other ONA and *Computer III* requirements. *See Computer III Further Remand Further Notice*, 13 FCC Rcd at 6040 n.4.

[90] *See Computer II Final Decision*, 77 FCC 2d at 475, para. 231.

[91] *Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4825, paras. 43-44; *see also CPE/Enhanced Services Bundling Order*, 16 FCC Rcd at 7442, para. 40 (stating that this obligation applies to non-dominant facilities-based carriers); *Independent Data Communications Manufacturers Association, Inc. Petition for Declaratory Ruling that AT&T's Interspan Frame Relay Service Is a Basic Service; and American Telephone and Telegraph Company Petition for Declaratory Ruling that All IXCs Be Subject to the Commission's Decision on the IDCMA Petition*, 10 FCC Rcd 13717 (Com. Car. Bur. 1995) (*Frame Relay Order*).

[92] *NCTA v. Brand X*, slip op. at 9-14 (cable modem service); *see Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4825, para. 43 (noting that the Commission has only applied the *Computer II* obligations to traditional wireline services and facilities).

33. There are numerous technologies and network designs that form, or potentially could form, part of the broadband telecommunications infrastructure of the 21st century. Cable operators have deployed cable modem technology.[93] Mobile wireless providers are increasingly offering high-speed Internet access using technologies like Evolution-Data Optimized (EV-DO) technology.[94] Satellite providers have deployed both Ku-band and even more advanced Ka-band technology that can offer high-speed Internet access service throughout the nation.[95] Fixed wireless operators are planning to use licensed and unlicensed spectrum to deliver broadband services, and are developing new technologies that promise ubiquitous service and greater bandwidth.[96] Other companies are exploring the use of power lines and cables placed in gas lines to provide broadband services.[97]

34. The nation's wireline infrastructure also is changing. As the Commission suggested in the *Wireline Broadband NPRM*, wireline technology formerly was limited to using circuit switches to move analog voice traffic over copper transmission facilities.[98] This required that the service provider establish and maintain for the duration of each call a physical connection (or circuit) between the calling and called parties. The wireline network was designed and built to transmit reliably and efficiently voice phone calls between end users. Technological developments, such as the introduction of electro-mechanical and electronic stored-program-controlled switches, improved voice service over time and introduced data services. However, these developments did not fundamentally change the capabilities of the wireline network. It remained largely a single-purpose platform, providing plain old telephone service (POTS).

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[93] *Fourth Section 706 Report*, at 14; *see also High-Speed Services July 2005 Report*, at 2, Table 1 (showing cable having a 56.4% market share of high-speed lines); *id.* at Tables 2-4.

[94] *Fourth Section 706 Report*, at 20; *see Applications of Nextel Communications, Inc. & Sprint Corp. for Consent to Transfer Control of Licenses and Authorizations*, WT Docket No. 05-63, Memorandum Opinion and Order, FCC 05-148, para. 8 (rel. Aug 8, 2005) (stating that Sprint has begun to roll out high-speed wireless data services using EV-DO technology).

[95] *Fourth Section 706 Report*, at 23, 46; *see also High-Speed Services July 2005 Report*, at 2, Table 1 (showing a combined satellite and wireless market share of 1.5% high-speed lines); *id.* at Tables 2-4; *Application of EchoStar Communications Corp., General Motors Corp., and Hughes Electronics Corp. (Transferors) and EchoStar Communications Corp. (Transferee)*, CS Docket No. 01-348, Hearing Designation Order, 17 FCC Rcd 20559, 20643, para. 225 (2002) (*EchoStar Hearing Designation Order*).

[96] *See, e.g.*, *Fourth Section 706 Report*, at 18-22, 31-32. The Commission has also adopted new licensing rules to respond to the need expressed by the growing number of wireless Internet service providers (WISPs) offering broadband service to consumers, particularly in rural areas. *Wireless Operations in the 3650-3700 MHZ Band*, ET Docket No. 04-151; *Rules for Wireless Broadband Services in the 3650-3700 MHZ*, ET Docket No. 05-96; *Additional Spectrum for Unlicensed Devices Below 900 MHZ and in the 3 GHZ Band*, ET Docket No. 02-380; *Amendment of the Commission's Rules with Regard to the 3650-3700 MHZ Government Transfer Band*, ET Docket No. 98-237, Report and Order and Memorandum Opinion and Order, 20 FCC Rcd 6502, 6503-04, para. 2, & 6506-07, para. 13 (2005) (finding that a growing number of WISPs are providing wireless broadband service in many areas where few alternatives are available).

[97] *Fourth Section 706 Report*, at 22; *see also Carrier Current Systems, including Broadband over Power Line Systems, Notice of Proposed Rulemaking*, ET Docket No. 03-104 (rel. Feb. 23, 2005); *see also High-Speed Services July 2005 Report*, at 2, Table 1 (showing combined powerline and fiber market share of 1.8 % high-speed lines); *id.* at Tables 2-4. While the Commission does not report individual market share data for all technologies, power line high-speed line market share appears to be less than 1%.

[98] *See Wireline Broadband NPRM*, 17 FCC Rcd at 3037, para. 36.

35. The advent of digital technology and mainframe computers began a fundamental change in wireline communications that is still ongoing. These advances made it possible to encode messages, including analog voice, in a digital form and transmit them in pieces (*i.e.*, packets). In its earliest form, packet switching technology had limited uses, such as providing remote access to mainframe computers. An end user sitting at a computer terminal would send a message to a "message concentrator" computer located near the end user's computer terminal. This computer would subdivide and reformat the message into short bursts of digital data called packets, store each packet until a transmission path became available on the network for that packet, and then forward the packet to a "message concentrator" computer at the message's destination. That computer would reassemble the individual packets, which may have transmitted at different times and over different network paths, into the original message and transmit it to the main frame computer, which would process and, where appropriate, reply to the end user's message using essentially the same processes.[99] Transmission speeds, of course, were extremely slow.[100]

36. Digital technology and its applications have come a long way since the introduction of packet switching during the early 1970s. As Intel co-founder Gordon Moore foresaw, the capacity of integrated circuits has roughly doubled every two years, rising from about 2,500 transistors per circuit during the early 1970s, to about 120,000 transistors per circuit in the early 1980s, to about 3,000,000 transistors per integrated circuit in the early 1990s, to over 42,000,000 transistors per circuit in 2003, and to nearly 1,000,000,000 transistors per circuit in today's most advanced computer processors.[101] Wireline providers have exploited this exponential growth in computing capacity by deploying digital switching and transmission technology of ever-growing capacity throughout their networks.[102] For more than 20 years, this deployment focused on improving transmission speeds between central offices and on providing limited additional functionalities beyond POTS, such as voice mail using the computing capability of digital switches.[103] These services generally were provided at the network's edge (*i.e.*, between an end office and the end users' premises) at relatively low speeds.[104]

37. Packet-based technology is now deployed throughout wireline networks and is used in many circumstances, including increasingly to perform the switching and routing functions associated with POTS and the processing functions that permit broadband Internet access service. Moreover, advances in optical transmission have allowed wireline providers to transmit digital signals efficiently and reliably over high-capacity transmission systems, and wireline providers have introduced such media into their

[99] *See, e.g.*, *Packet Communications, Inc.*, File No. P-C-8533, Memorandum Opinion, Order and Certificate, 43 FCC 2d 922, 922, para. 2 (1973).

[100] *See, e.g.*, *American Trucking Ass'n v. American Telephone and Telegraph Co.*, Docket No. 19746, & *Regulatory Policies Concerning Resale and Shared Use of Common Services and Facilities*, Docket No. 20097, Notice of Inquiry and Proposed Rulemaking, 47 FCC 2d 644, 646, para. 6 (1974) (addressing a proposed packet switching network that initially was to provide "one 50 Kilobit per second line linking each of a selected group of major population centers").

[101] Intel Research, *Silicon, Moore's Law*, found at "www.intel.com/research/silicon/mooreslaw.htm" (visited July 6, 2005).

[102] *See* Computer Science and Telecommunications Board, National Research Council, *Broadband, Bringing Home the Bits*, at 48 (2002).

[103] *Id.*

[104] *Id.*

networks. At the same time, personal computers have become pervasive in the nation's businesses and homes, as has a wide variety of arrangements for networking these computers.[105]

38. Reflecting these advances, manufacturers have developed powerful platforms that integrate traditionally separate computing and communications functions.[106] While DSL technology has existed for many years, only in recent years have carriers widely deployed that technology to transmit data at high speeds over copper loops and to use these same copper loops for the simultaneous provision of voice and data services. Wireline providers now routinely deploy facilities and equipment, such as ATM switches, digital subscriber line access multiplexers (DSLAMs), and fiber optics in the local loop, that have continued this network advancement.

39. Wireline networks are now using digital, packet-based technology to deliver a wider range of services. Many of these services are IP-based, which allows computers with differing hardware architectures and operating systems to communicate with each other. Functions can be dispersed throughout the network and performed at multiple points within the network. From the end user's perspective, the platforms that connect the end user to the ISP are largely interchangeable and functionally the same. That is, each platform provides the user with the ability to send and receive information at very high speed, and to access the applications and services available through the Internet. Although each platform relies on the same underlying protocol, because of that protocol's inherent flexibility, this reliance fosters, rather than prevents, increased service differentiation among platform providers that are competing for customers.

40. As the foregoing illustrates, the technology used to build networks, and the purposes for which they are built, are fundamentally changing, and will likely continue to do so for the foreseeable future. A wide variety of IP-based services can be provided regardless of the nature of the broadband platform used to connect the consumer and the ISP. Network platforms therefore will be multi-purpose in nature and more application-based, rather than existing for a single, unitary, technologically specific purpose. More generally, the erosion of barriers between various networks and the limitations inherent in those barriers will lead to greater capacity for innovation to offer new services and products. Both the providers of network platforms and those that utilize the platforms are in a position to capitalize on these changes. In addition, as with any evolving technology, new products and providers will continue to emerge to complement existing market offerings and participants; and these offerings will grow over time as consumers demand even more advanced services, with the result that technological growth and development continue on an upward spiral.

2. *Computer Inquiry* Requirements Are No Longer Appropriate

41. We decline to continue to impose any *Computer Inquiry* requirements on facilities-based carriers in their provision of wireline broadband Internet access service.[107] Consequently, BOCs are immediately

[105] *See Fourth Section 706 Report*, at 38 (stating that, as of June 2004, 71% of U.S. households had computers in the home); U.S. Dept. of Commerce, National Telecommunications and Information Administration, *A Nation Online: Entering the Broadband Age*, Sept. 2004, at 4-7 (*NTIA Broadband Report*) (reflecting data from the U.S. Census Bureau's survey of computer and Internet use).

[106] *See generally Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Fourth Report and Order, 16 FCC Rcd 15435, 15452-56, paras. 32-41 (2001) (*Collocation Remand Order*), *aff'd sub nom. Verizon Telephone Cos. v. FCC*, 292 F.3d 903 (D.C. Cir. 2002) (*Verizon v. FCC*).

[107] As noted above, our actions in this Order are limited to the transmission component of wireline broadband Internet access service only. *See supra* n.15; *see also Wireline Broadband NPRM*, 17 FCC Rcd at 3025 n.18.

relieved of the separate subsidiary, CEI, and ONA obligations with respect to wireline broadband Internet access services. In addition, subject to a one-year transition period for existing wireline broadband transmission services, all wireline broadband Internet access service providers are no longer subject to the *Computer II* requirement to separate out the underlying transmission from wireline broadband Internet access service and offer it on a common carrier basis.[108]

42. We agree with those commenters that argue that the *Computer Inquiry* obligations are inappropriate and unnecessary for today's wireline broadband Internet access market.[109] As these parties observe, the *Computer Inquiry* rules were developed before separate and different broadband technologies began to emerge and compete for the same customers.[110] Further, these rules were adopted based on assumptions associated with narrowband services, single purpose network platforms, and circuit-switched technology.[111] Notably, even commenters that argue for a continued access requirement generally acknowledge that the current structural separation, CEI, and ONA requirements are outmoded and should be eliminated or replaced.[112] Indeed, the record provides little, if any, support for retaining the structural

[108] In the absence of an express statutory requirement that a particular service be offered on a common carrier basis, the Commission and the courts have interpreted whether the public interest requires a common carrier service based on a number of factors related to the service at issue. *See National Ass'n of Reg. Utils. Comm'rs v. FCC*, 525 F.2d 630, 642 (D.C. Cir. 1976), *cert. denied*, 425 U.S. 992 (1976) (*NARUC I*); *AT&T Submarine Systems, Inc. Application for a License to Land and Operate a Digital Submarine Cable System Between St. Thomas and St. Croix in the U.S. Virgin Islands*, File No. S-C-L-94-006, Memorandum Opinion and Order, 13 FCC Rcd 21585, 21589, para. 9 & nn. 23-24 (1998) (*AT&T SSI Order*), *aff'd sub nom. Virgin Islands Telephone Corp. v. FCC*, 198 F.3d 921 (D.C. Cir. 1999) (*Vitelco v. FCC*); *Applications of Hughes Communications, Inc., et al. for Modification of Domestic Fixed Satellite Space Station Authorizations to Permit Non Common Carrier Transponder Sales*, CC Docket No 82-45, Memorandum Opinion, Order and Authorization, 90 FCC 2d 1238, 1254-55, para. 39 (1982) (*Transponder Sales Order*), *aff'd sub nom. Wold Communications, Inc. v. FCC*, 735 F.2d 1465 (D.C. Cir 1984), *modified*, *Applications of Martin Marietta Communications Systems, Inc. For Authority to Construct, Launch and Operate Space Stations in the Domestic Fixed Satellite Service*, File Nos. 952/953-DSS-P/LA-84 954-DSS-P-84, 60 R.R.2d 779 (1986).

[109] *See, e.g.*, Alcatel Comments at 2-3; SureWest Comments at 5-6; HTBC Reply at 3 (but suggesting a "minimally regulated environment for broadband transmission"); Letter from Cronan O'Connell, Vice President-Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-33, Attach. (filed May 23, 2003) (Qwest May 23, 2003 *Ex Parte* Letter); Letter from Cronan O'Connell, Vice President-Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-33, Attach. (filed Apr. 10, 2003) (Qwest Apr. 10, 2003 *Ex Parte* Letter); Letter from Glenn Reynolds, Vice President-Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 02-33 & 01-337, Attach. (filed Apr. 2, 2003) (BellSouth Apr. 2, 2003 *Ex Parte* Letter); Letter from Jeffry Brueggeman, General Attorney, SBC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-33, Attach. (filed Mar. 7, 2003) (SBC Mar. 7, 2003 *Ex Parte* Letter).

[110] *See, e.g.*, Alcatel Comments at 3; BellSouth Apr. 10, 2003 *Ex Parte* Letter, Attach. at 4; SBC Mar. 7, 2003 *Ex Parte* Letter, Attach. at 11; Letter from Ann D. Berkowitz, Project Manager-Federal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-33, Attach. at 4 (filed Nov. 25, 2002) (Verizon Nov. 25, 2002 *Ex Parte* Letter).

[111] *See, e.g.*, SBC Mar. 7, 2003 *Ex Parte* Letter at 11; Verizon Nov. 25, 2002 *Ex Parte* Letter at 4; Letter from W. Scott Randolph, Director-Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-33, Attach. at 2 (filed May 20, 2003) (Verizon May 20, 2003 *Ex Parte* Letter).

[112] *See, e.g.*, Letter from Donna N. Lampert on behalf of Earthlink, MCI and AOL Time Warner, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 02-33, 95-20, & 98-10, Attach. (filed May 1, 2003) (*Earthlink et al. Streamlining Proposal*) (proposing that we replace the nine CEI parameters and procedural requirements, and the ONA unbundling obligations, reporting requirements, and tariffing requirements with streamlined and updated regulations for BOC broadband access services reflecting the core nondiscriminatory access to transmission principles of (continued . . .)

separation option of *Computer II* or for conditioning BOC structural relief on compliance with a detailed set of regulatory requirements such as the CEI or ONA requirements. Instead, commenters arguing for continued regulation of wireline broadband Internet access service providers focus primarily on the core nondiscriminatory access obligation of *Computer II*, urging that we, at a minimum, should retain a common carrier transmission access requirement in some form.[113] In evaluating these arguments, we are mindful that one of the Commission's most critical functions is to adapt regulation to changing technology and competitive conditions to accomplish its mandates under the Act.[114]

43. In determining whether to eliminate the *Computer Inquiry* requirements (*e.g.*, the separate subsidiary, nondiscriminatory access to transmission, CEI, and ONA obligations) for facilities-based providers of wireline broadband Internet access services,[115] we weigh the benefits of these requirements against their costs in accordance with our obligations under the Act. This determination is informed not only by our understanding of the current broadband Internet access market, but what our predictive judgment tells about how that market is likely to develop.[116] It is critical to factor in these future expectations because the broadband market is evolving rapidly. At the time the *Computer Inquiry* rules were adopted, there was an implicit, if not explicit, assumption that the incumbent LEC wireline platform would remain the only network platform available to enhanced services providers.[117] Regulated access to wireline transmission thus was essential for a competitive information services market to flourish.

44. As we discuss below, the characteristics of the broadband market, as well as evidence that facilities-based wireline carriers have incentives to make, and indeed already make, broadband transmission capacity available to ISPs, absent regulation, are factors that influence our analysis in determining whether such regulation is still necessary.[118] Moreover, this regulation can have a significant impact on the ability of wireline platform providers to develop and deploy innovative broadband capabilities that respond to market demands. The record shows that the additional costs of an access mandate diminish a carrier's incentive and ability to invest in and deploy broadband infrastructure

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Computer II; Letter from Mark Uncapher, ITAA, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 02-33, 98-10, Attach. at 6 (filed Mar. 17, 2003) (ITAA Mar. 17, 2003 *Ex Parte* Letter) (proposing the elimination of ineffective CEI/ONA rules but retaining the nondiscriminatory access to transmission obligation until a competitive broadband market exists); Letter from Todd D. Daubert, Counsel for AISPA, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 02-33, 95-20, & 98-10 (filed May 28, 2003) (AISPA May 28, 2003 *Ex Parte* Letter)(supporting the *Earthlink et al. Streamlining Proposal* as well as arguing for greater protection against anticompetitive pricing behavior and improved ability to monitor BOC compliance).

[113] *Id.*; *see also infra* para. 97.

[114] *See, e.g.*, *Wold Communications v. FCC*, 735 F.2d at 1476-77 (discussing the Commission's ability to modify regulations).

[115] As discussed above, we recognize that many of these requirements apply only to the BOCs.

[116] Courts have recognized that the Commission's decisions must sometimes rest on "judgment and prediction rather than pure factual determinations." *FCC v. WNCN Listeners Guild*, 450 U.S. 582, 594-95 (1981) (citations and internal quotation marks omitted); *see also Wold Communications*, 735 F.2d at 1479.

[117] *See NCTA v. Brand X*, slip op. at 30 (recognizing that the Commission's *Computer II* unbundling requirement was based on the belief that the telephone network was "the primary, if not exclusive, means through which information service providers can gain access to their customers") (citations and internal quotation marks omitted); *accord Cable Modem Declaratory Ruling*, 17 FCC Rcd at 4825, para. 44.

[118] *See infra* paras. 74-76 (explaining these business incentives).