

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

In the Matter of)	
)	
Inquiry Concerning High-Speed)	GEN Docket No. 00-185
Access to the Internet Over)	
Cable and Other Facilities)	

NOTICE OF INQUIRY

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By the Commission:

I. INTRODUCTION

1. The convergence of technologies that allows the provision of high-speed services over traditional cable television facilities, telecommunications lines, and other facilities raises several fundamental questions concerning the Commission's traditional approaches to such technologies.

In this proceeding, the Commission will explore issues surrounding high-speed access to the Internet provided to subscribers over cable infrastructure, so-called "cable modem services."¹ Specifically, we seek to determine what regulatory treatment, if any, should be accorded to cable modem service and the cable modem platform used in providing this service. We also seek comment on the impact of our approach on other providers of high-speed services.

2. Underlying our inquiry here are several complementary goals. One of the Commission's objectives under the Communications Act of 1934, as amended (the Act), is to promote widespread and rapid deployment of high-speed services, while at the same time to

¹ Several terms, such as cable broadband, cable modem service, and cable Internet, have been used to describe high-speed services, most notably Internet services, using cable modem technologies. We refer in this Notice to "cable modem service," without intending to prejudge any of the classification questions presented herein, when referring to the Internet services that are provided to end user subscribers using cable modem technologies. Similarly, we use the term "cable modem platform" to single out the underlying facilities used to provide the cable modem service. Cable modem technologies rely on the basic cable television network architecture but with upgrades and enhancements to support high-speed services. *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Second Report, FCC 00-290 (rel. Aug. 21, 2000) (*Second 706 Report*).

preserve and promote the “vibrant and competitive free market” that exists for the Internet.² With these objectives in mind, we seek to create a legal and policy framework for cable modem service and the cable modem platform that will foster competitive deployment of new technologies and services by all entities, including cable operators and Internet service providers (ISPs) alike. We seek to instill a measure of regulatory stability in the market to encourage investment in all types of high-speed networks and innovation in high-speed services. It is particularly important to develop a national legal and policy framework in light of recent federal court opinions that have classified cable modem service in varying manners.³ Accordingly, we seek in this Notice of Inquiry (NOI) to develop a full record to assess the legal issues and marketplace developments surrounding cable modem service and access to the cable modem platform, to address whether to establish a national policy with respect to the treatment of high-speed services, and to determine how a national policy will advance the goals Congress set forth in section 706 and other provisions of the Telecommunications Act of 1996 (1996 Act).

3. To the extent that the creation of competitive market conditions depends upon competition between all providers of high-speed services, the Commission seeks to develop a record that examines the full range of high-speed service providers, including providers that use cable, wireline, wireless, satellite, broadcast, and unlicensed spectrum⁴ technologies. This Commission has jurisdiction over all interstate communications services, including the high-speed services offered by such providers.⁵ In exercising this jurisdiction, the Commission has sought to reduce barriers to entry, encourage investment, and facilitate the deployment of high-speed services.

4. The Commission has heretofore taken a “hands-off” policy with respect to the high-speed services provided by cable operators. This regulatory restraint has been premised, in part, on the belief that “multiple methods of increasing bandwidth are or soon will be made available to a broad range of customers.”⁶ Nonetheless, this Commission has stated that it would revisit this

² See 47 U.S.C. § 230(b)(2); 47 U.S.C. § 157; Sec. 706, Pub. L. 104-104, Title VII, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. § 157.

³ Compare *AT&T Corp. v. City of Portland*, 216 F.3d 871, 877 (9th Cir. 2000) (*City of Portland*) (holding that cable modem service comprises both a “telecommunications service” and an “information service.”) with *Gulf Power Co. v. FCC*, 208 F.3d 1263, 1275-78 (11th Cir. 2000) (holding that Internet service is neither a cable service nor a telecommunications service) and *MediaOne Group, Inc. v. County of Henrico*, 97 F.Supp.2d 712, 714 (E.D. Va. 2000), *appeal pending*, 4th Cir. No. 00-1680 (concluding that cable modem service is a cable service).

⁴ See 47 C.F.R. § 15.301 *et seq.*; 47 C.F.R. § 15.401 *et seq.* See also *Second 706 Report* at ¶ 55.

⁵ See 47 U.S.C. § 151 (interstate and foreign communications by wire or radio); 47 U.S.C. § 521 *et seq.* (cable communications providers); 47 U.S.C. § 201 *et seq.* (common carriers); 47 U.S.C. § 332 (wireless telecommunications providers).

⁶ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Report, 14 FCC Rcd 2398, 2448 at ¶ 101 (1999) (*First 706 Report*). To fulfill its mandate under section 706 of the 1996 Act, the Commission indicated that it would “continue to monitor closely the deployment of broadband to all Americans.” *Id.* at ¶ 98.

policy “if competition fails to grow as expected” in the provision of high-speed services.⁷ We therefore ask several questions in this proceeding to ascertain whether our hands-off policy for high-speed services provided by cable operators remains the correct approach and how the Commission might introduce a national policy framework for regulating high-speed services. In light of factors such as the differing treatment accorded different providers and services under the Act itself, however, we note that this national framework may or may not impose the same regulatory obligations on all providers.

II. BACKGROUND

5. Cable modem technology is among several different means by which consumers may obtain high-speed access to the Internet. Before inquiring into the appropriate legal classification of cable modem service and/or the cable modem platform, as well as alternative policy approaches to achieving vibrant competition and improving consumer access to high-speed services, we describe briefly the development of high-speed services and the Commission’s treatment of such services to date. We also describe how federal courts have analyzed the regulatory status of cable modem service.

A. Evolution Of High-Speed Services

6. Most residential and small business consumers currently receive Internet service from ISPs via traditional “dial-up” telephone services provided by local exchange carriers (LECs) over copper telephone lines. Customers purchase telephone services from LECs at standard tariffed prices and use such services to gain access to ISPs, and, through them, the Internet. This “last mile” transmission capability is available independently of the choice of ISP. In these dial-up arrangements, customers use modems with their computers that are connected to their telephone lines. Increasingly, customers are using the local telephone network to obtain high-speed access to the Internet through xDSL technologies provided by incumbent and competitive LECs.⁸ In fact, in our recent *Second 706 Report*, we found significant growth in advanced services provided to residential and small business customers by LECs between 1998 and 1999.⁹

7. In recent years, industry investment in infrastructure to support high-speed services has increased dramatically, driven in part by the rapidly rising demand for such services.¹⁰ Service providers are deploying a variety of networks that rely on different network architectures and transmission paths, including copper wire, cable, terrestrial wireless radio spectrum, satellite radio spectrum, or a combination of these and other media, to provide high-speed services. In the

⁷ *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee*, CS Docket No. 99-251, Memorandum Opinion and Order, FCC 00-202, at ¶ 121 (rel. June 6, 2000) (*AT&T/MediaOne Order*).

⁸ While there are multiple variations of xDSL, the most common form of xDSL used by residential customers is asymmetric DSL or ADSL. See *Second 706 Report* at ¶ 36.

⁹ See *id.* at ¶ 72.

¹⁰ *Id.* at ¶¶ 185-202.

coming years, analysts predict rapid growth in subscribership of high-speed services provided using each of these technologies.¹¹

8. In particular, a number of cable television operators, both incumbents and new entrants, have started offering access to the Internet over their cable plant.¹² These services provide access with much higher transmission speeds than traditional dial-up services and are offered primarily to residential customers over the cable systems' shared media hybrid fiber coaxial networks.¹³ The coaxial cable transmits signals to the cable modem, which, in turn, is connected to the computer. For the return path, some cable modem services require the customers' computers to send signals upstream over traditional dial-up telephone connections. With more advanced cable modem networks, both directions of traffic are transmitted via the coaxial cable, which permits the connection to be open at all times and offer higher transmission speeds.

9. In general, ISPs receive communications from their customers' computers and route the communications to other computers connected either to their networks or other networks. Some ISPs often combine their services with proprietary or non-proprietary content.¹⁴ In other words, they often compete as content providers as well as ISPs. Those ISPs that combine content with Internet service are sometimes referred to as online service providers (OSPs).¹⁵ America Online (AOL), Microsoft Network, and Prodigy Communications Corporation all provide content as OSPs; AOL is the largest OSP in the United States.¹⁶

10. Cable operators offering high-speed access to the Internet often provide the underlying transmission, the Internet service, and proprietary content, much like that offered by AOL and other OSPs. For example, AT&T's Excite@Home affiliate, the largest cable ISP in the United States, provides cable modem services over both AT&T networks and cable networks

¹¹ *Id.*

¹² The incumbent cable operators and new entrants that offer this service can be part of either small, independent companies or large, nationwide companies (sometimes called Multiple System Operators or MSOs). Some local communities, for example, have built cable systems to compete with the incumbent, and these municipal systems increasingly offer high-speed Internet services. See *Second 706 Report* at ¶ 140. Open Video System (OVS) operators similarly could offer Internet services over cable plant. See 47 U.S.C. § 571(a)(3)-(4).

¹³ See *Second 706 Report* at ¶ 29; *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc., Transferor, to AT&T Corp., Transferee*, CS Docket No. 98-178, Memorandum Opinion and Order, 14 FCC Rcd 3160, 3194 ¶ 71 (1999) (*AT&T/TCI Order*).

¹⁴ See Barbara Esbin, *Internet Over Cable: Defining the Future in Terms of the Past* (OPP Working Paper Series No. 30, 1998) at 17-18. By "proprietary content" we mean content that an online service provider offers on its network exclusively to its own customers.

¹⁵ Although we identify OSPs here and in other parts of the NOI where the questions pertain specifically to ISPs that provide content, our general use of the term "ISP" in this NOI is meant to include OSPs as well.

¹⁶ See Patricia Fusco, *Top 12 ISPs by Subscriber*, http://www.ISP-planet.com/research/ISP_071000.html (viewed Aug. 21, 2000); <http://www.jetcafe.org/~npc/isp/large.html> (viewed Aug. 21, 2000).

owned by other cable system operators. In a typical arrangement, Excite@Home is the exclusive provider of Internet service, along with certain proprietary content, to the cable system, whether or not owned by AT&T. Excite@Home operates the servers, routers and other Internet support services and manages the use of the cable network for data delivery services. Subscribers are provided with browsing and e-mail functionalities similar in nature to those offered by other ISPs, allowing the subscriber to send and receive e-mail and to reach content on the World Wide Web.¹⁷

B. The Commission's Approach To High-Speed Services

11. The Commission has shown regulatory restraint with respect to emerging services in a number of contexts. In the *Computer Inquiries*, for example, the Commission refrained from regulating data processing services, relying in part on the fact that the market for such services, while still nascent, was functioning in a competitive manner.¹⁸ As another recent example of restraint, the Commission in the *UNE Remand Order* declined to unbundle packet switching and DSLAM functionality used to provide advanced telecommunications services in the incumbent LEC's network, except in limited circumstances.¹⁹

12. Beginning with our review of the AT&T/TCI merger in 1999, numerous parties have argued that the Commission should require cable operators to provide unaffiliated ISPs with access to cable networks on nondiscriminatory terms and conditions.²⁰ In the *AT&T/TCI Order*, the Commission declined to condition the transfer on an open access requirement based on the Applicants' representation that subscribers could continue to bypass Excite@Home's proprietary content and reach any content available on the World Wide Web.²¹ In its review of the AT&T/MediaOne merger, the Commission again declined to impose an open access condition, based on three primary considerations: (1) the increasingly rapid deployment of alternative high-speed Internet platforms, especially xDSL; (2) a commitment by AT&T/MediaOne to negotiate non-exclusive contracts with unaffiliated ISPs when the Applicants' exclusive arrangements with affiliated ISPs (Excite@Home for AT&T, Road Runner for MediaOne) expire in 2002 and 2001, respectively; and (3) a consent decree between the Department of Justice and AT&T/MediaOne requiring the merged firm to divest its ownership in Road Runner no later than December 31,

¹⁷ See *AT&T/MediaOne Order* at ¶ 107; *AT&T/TCI Order*, 14 FCC Rcd at 3196 ¶ 72.

¹⁸ The Commission explicitly considered data processing services provided via LECs and other traditional telecommunications carriers as early as 1966, when the first *Computer Inquiry* was launched. See *Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, Docket No. 16979, Notice of Inquiry, 7 FCC2d 11 (1966) (*Computer I*); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC2d 384 (1980) (*Computer II*); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry)*, CC Docket No. 85-229, Report and Order, 104 FCC2d 958 (1986) (*Computer III*).

¹⁹ See *UNE Remand Order* at ¶ 306; 47 C.F.R. § 51.319(c)(3).

²⁰ See *AT&T/TCI Order*, 14 FCC Rcd at 3197-98 ¶ 75; *AT&T/MediaOne Order* at ¶¶ 114-15.

²¹ *AT&T/TCI Order*, 14 FCC Rcd at 3207 ¶ 96.

2001.²² Certain parties have petitioned the Commission to reconsider its decision regarding open access in the *AT&T/MediaOne Order*, and the Commission has not yet acted on this petition.²³ This Commission has also considered the question of open access to a cable company's cable modem platform in the context of its Section 706 Reports to Congress. We saw no reason at the time of the *First 706 Report* to require open access to cable modem platforms but stated that “[w]e will, however, continue to monitor broadband deployment closely to see whether there are developments that could affect our goal of encouraging deployment of broadband capabilities pursuant to the requirements of section 706.”²⁴

13. While the Commission has pursued open access through regulatory restraint, some local governments have sought to achieve open access through regulation. These local efforts have resulted in recent federal court cases that have considered the regulatory status of cable modem service under the Act. In the context of license transfers involving AT&T's cable systems, a number of local franchising authorities (LFAs) enacted ordinances conditioning the license transfer on nondiscriminatory access to the cable modem platform for unaffiliated ISPs.²⁵ In *AT&T Corp. v. City of Portland*, the United States Court of Appeals for the Ninth Circuit confirmed this Commission's role in establishing a national broadband policy. The Ninth Circuit also ruled that insofar as Excite@Home provides subscribers with Internet transmission over AT&T's cable network, it was providing a “telecommunications service,” and insofar as Excite@Home offers subscribers services traditionally offered by ISPs, the court held that it provides an “information service.”²⁶ The court declined to say whether the Commission should subject the “telecommunications service” provider to the full range of telecommunications common carrier regulations under Title II, observing that the Commission has broad authority to forbear from enforcing those regulations.²⁷ Reaching a contrary conclusion, the United States District Court for the Eastern District of Virginia has ruled that Excite@Home's cable modem

²² *AT&T/MediaOne Order* at ¶¶ 116-23. See also Applications of America Online, Inc. and Time Warner Inc. for Transfers of Control, CS Docket No. 00-30 (filed February 11, 2000; amended March 21, 2000). We note that the Commission rejected a request from an ISP, Internet Ventures, Inc., asking the Commission to rule that the ISP had a right under section 612 of the Act to “leased access” to cable facilities. See *Internet Ventures, Inc., Internet On-Ramp, Inc., Petition for Declaratory Ruling that Internet Service Providers are Entitled to Leased Access to Cable Facilities Under Section 612 of the Communications Act*, File No. CSR-5407-L, Memorandum Opinion and Order (rel. Feb. 18, 2000).

²³ See *In the Matter of Applications for Consent to the Transfer of Control of Licenses and Section Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee*, CS Docket No. 99-251, Petition for Reconsideration of Consumers Union, Consumer Federation of America and Media Access Project (filed July 5, 2000).

²⁴ *First 706 Report*, 14 FCC Rcd at 2449 ¶ 101.

²⁵ By “unaffiliated ISP,” we mean an ISP in which the cable operator does not have an ownership or controlling interest, and which is not the exclusive provider of Internet services for the subscribers of that cable operator.

²⁶ *City of Portland*, 216 F.3d at 878. We note that the court reached this conclusion without specifically construing the language of the statutory definitions at issue.

²⁷ *City of Portland*, 216 F.3d at 879 (citing 47 U.S.C. § 160(a)).

service fits the statutory definition of a “cable service.”²⁸ Finally, the United States Court of Appeals for the Eleventh Circuit has held that “Internet service does not meet the definition of either a cable service or a telecommunications service.”²⁹

III. DISCUSSION

14. In ascertaining the appropriate legal and policy environment for cable modem service and the cable modem platform, we seek to develop a factual record regarding the services provided by cable operators and the type of access sought by unaffiliated ISPs. We also seek input on the extent to which such access is necessary to benefit consumers or otherwise achieve policy goals that Congress or the Commission may identify, such as the goals of promoting competition, deregulation, innovation, and the deployment of high-speed services. Specifically, we seek comment on several approaches to classifying cable modem service and/or the cable modem platform and the implications of classifying the service and/or platform under each category. Next, we seek comment on various issues related to open access, including definitional issues and how market-based and regulatory approaches potentially affect the availability of high-speed services. Finally, we seek comment on whether the Commission should pursue any further course of action, such as exercising its rulemaking or forbearance authority.

A. The Classification of Cable Modem Service And/Or The Cable Modem Platform

15. We seek comment on the variety of legal or policy frameworks that might apply to cable modem service and the cable modem platform. Indeed, there may be a number of regulatory approaches possible, from treating cable modem service and/or the cable modem platform as a cable service subject to Title VI; as a telecommunications service under Title II; as an information service subject to Title I; or some entirely different or hybrid service subject to multiple provisions of the Act. We also seek comment on the implications, if any, of adopting a particular framework for classifying cable modem service and/or the cable modem platform as it relates to our regulation of other high-speed service providers, including those that use xDSL, wireless, satellite, broadcast and unlicensed spectrum technologies.

16. More specifically, with respect to applying Title VI, we invite comment on whether cable modem service and/or the cable modem platform is a cable service. “Cable service” is defined under the Act as “(A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection *or use* of such video programming or other programming service.”³⁰ The terms “or use”

²⁸ *Henrico*, 97 F.Supp.2d at 715.

²⁹ *Gulf Power*, 208 F.3d at 1278. *Gulf Power* did not deal with an open access ordinance, but with the question of the rates utility companies may charge for the use of their poles and ducts under 47 U.S.C. § 224.

³⁰ 47 U.S.C. § 522(6) (emphasis added).

were added to the definition in the 1996 Act.³¹ Does the legislative history indicate that Congress intended by this change to include cable modem service and/or the cable modem platform in the definition of “cable service”? Specifically, we seek comment on whether the addition of the words “or use” expanded the category of services such that cable modem service and/or the cable modem platform fits within the definition. Notwithstanding the 1996 amendment, a service that is not “video programming” cannot be a “cable service” unless it qualifies as “other programming service.”³² Does cable modem service and/or the cable modem platform constitute “other programming service” as defined in the Act?

17. We also invite comment on the implications of classifying cable modem service and/or the cable modem platform as a cable service. Would classification as a cable service affect the Commission’s ability to establish a uniform national policy with respect to high-speed services? For example, section 622 of the Act gives localities the authority to charge a franchise fee of no more than five percent of the cable operator's gross revenues.³³ How would this requirement apply were the Commission to consider cable modem service and/or the cable modem platform a “cable service”? Similarly, local franchising authorities have the power to establish requirements for facilities and equipment, and to establish and enforce customer service requirements. Cable operators also are subject to various requirements relating to subscriber privacy. We ask for comment on how these and any other pertinent regulatory provisions might apply if cable modem service and/or the cable modem platform were considered a “cable service.”

18. In addition, we seek comment on whether cable modem service and/or the cable modem platform is a telecommunications service subject to Title II.³⁴ Under the Act, “telecommunications”³⁵ is a necessary component of a “telecommunications service.” Is there a component of cable modem service or the cable modem platform that represents pure

³¹ The 1984 Cable Act defined “cable service” as “(A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection of such video programming or other programming service.” Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (1984 Cable Act). We note that, in amending the definition of cable service in 1996, Congress stated that it did not intend to eliminate the longstanding regulatory distinction between telecommunications service and cable service. *See* Conference Report at 169 (“This amendment is not intended to affect Federal or State regulation of telecommunications service offered through cable facilities, or to cause dial-up access to information services over telephone lines to be classified as a cable service.”).

³² The definition of “other programming service” requires that it be “information that a cable operator makes available to all subscribers generally.” 47 U.S.C. § 522(14).

³³ *See* 47 U.S.C. § 542.

³⁴ The Act 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.” 47 U.S.C. § 153(46). As described above, the Ninth Circuit classified transmission over a cable modem platform as a telecommunications service. *City of Portland*, 216 F.3d at 878.

³⁵ The Act defines “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.” 47 U.S.C. § 153(43).

transmission capability between a subscriber and a destination which does not alter the form or content of the information sent?³⁶ If so, should we, if only for definitional purposes, sever a telecommunications component from other functions that may be provided? Is it possible for cable subscribers to specify the ultimate points of communication on the Internet? Does it matter, for purposes of determining whether the service is a common carrier offering, that the cable subscriber cannot select ISPs that have not entered into agreements with the cable operator? If cable modem service or the cable modem platform contains a telecommunications component, must the facility used to provide the telecommunications necessarily be classified as a “telecommunications facility”?³⁷

19. The Act defines “telecommunications” differently from “telecommunications service.” Assuming that cable modem service or the cable modem platform contains a “telecommunications” component, does it follow that the cable operator is providing a “telecommunications service?” That is, is the cable operator offering telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public? To the extent that the cable operator is providing a telecommunications service, does this make it a “telecommunications carrier” or a “common carrier,” or both?³⁸ Specifically, if a cable operator provides telecommunications services, does that mean that it is also providing common carrier services?³⁹

20. We note that the Act imposes a wide variety of obligations on telecommunications carriers, including requirements relating to interconnection, universal service contributions,

³⁶ See *City of Portland*, 216 F.3d at 877 (noting that the “telephone service linking the user and the ISP is classic ‘telecommunications’”).

³⁷ *Henrico*, Amicus Curiae Brief of the Federal Communications Commission at 13, 18-24 (noting that an open access regime would compel the provision of “telecommunications facilities” (*i.e.*, transmission pipelines) to ISPs).

³⁸ Under the Act, a telecommunications carrier “shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services . . .” 47 U.S.C. § 153(44). The Act defines a “common carrier” as “any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or in interstate or foreign radio transmission of energy,” other than a person engaged in radio broadcasting. 47 U.S.C. § 153(10). See also 47 C.F.R. § 21.2 (defining “communication common carrier” as “[a]ny person engaged in rendering communication service for hire to the public.”).

³⁹ We note that the Commission has previously concluded that, because a particular submarine cable would not be classified as a common carrier cable under the test set forth in *National Association of Regulatory Utility Commissioners v. FCC*, 525 F.2d 630, 641 (D.C. Cir. 1976) (*NARUC I*), the submarine cable licensee also would not be providing a telecommunications service for a fee to such class of users as to be “effectively available directly to the public” and thus would not be a “telecommunications carrier” under the 1996 Act. In determining that the *NARUC I* test has continued applicability after the 1996 Act, the Commission concluded that “the term ‘telecommunications carrier’ means essentially the same as common carrier” and “does not . . . introduce a new concept whereby we must look to the customers’ customers to determine the status of a carrier.” See *AT&T Submarine Systems, Inc.*, 13 FCC Rcd 21585, 21587-88 ¶ 6 (1998), *aff’d*, *Virgin Islands Tel. Co. v. FCC*, 198 F.3d 921 (D.C. Cir. 1999); *Cable and Wireless, PLC*, 12 FCC Rcd 8516, 8522 ¶ 13 (1997).

disabilities access, and privacy of subscriber information.⁴⁰ How would those statutory provisions, and the Commission's implementing regulations, apply to cable operators? For example, how would the section 251(a) interconnection obligation apply to cable operators?⁴¹ How would the Commission determine whether cable modem service was provided at rates that are just, reasonable and not unreasonably discriminatory? How would the Commission determine whether the manner in which cable companies allow unaffiliated ISPs to "interconnect" with the cable modem platform is just, reasonable and not unreasonably discriminatory? If the Commission were to adopt a Title II approach, what would be the implications of such an approach under sections 201, 202, and 203 of the Act? That is, as a legal and policy matter, should the *Computer II* unbundling requirements be interpreted to apply to facilities-based carriers including non-dominant carriers? To what extent did imposition of unbundling requirements in that proceeding rely on the presence of market power? Would applying these requirements to cable operators and other facilities-based providers of high-speed services be consistent with the goals of the *Computer Inquiry* proceedings? Parties advocating such an approach should discuss the boundaries of federal, state, and local authority over access to the cable modem platform.

21. In answering the foregoing, parties should discuss whether cable operators should be treated as common carriers, which provide service indiscriminately to all potential customers, or as private carriers, which make individualized decisions whether and on what terms to provide service.⁴² How should Commission precedent and other relevant caselaw, including *NARUC I*, inform the Commission's inquiry into the nature of cable modem service and the cable modem platform?

22. We also seek comment on whether the cable modem platform is an advanced telecommunications capability.⁴³ Are there any differences between advanced telecommunications

⁴⁰ See, e.g., 47 U.S.C. § 251(a) (direct or indirect interconnection); 47 U.S.C. § 254(d) (contributions to the universal service fund); 47 U.S.C. § 255 (telecommunications services for hearing-impaired and speech-impaired individuals); 47 U.S.C. § 222 (privacy). See also 47 U.S.C. § 1001 *et seq.* (Communications Assistance for Law Enforcement Act). We note that telecommunications carriers also are subject to requirements derived from state law, which may include certification, tariffing, reporting requirements, and the payment of regulatory fees.

⁴¹ These and other questions relating to access to the cable modem platform incorporate issues contained in the US Internet Industry's Petition for Declaratory Ruling and Institution of Rulemaking with Respect to Tariffs for Cable Internet Interconnectivity (filed July 7, 2000).

⁴² We note that the Commission traditionally has applied the two-part test of *NARUC I* to distinguish between common carriage and private carriage, inquiring first whether the carrier is under any legal compulsion to serve the public indifferently, and second whether there are reasons implicit in the nature of the carrier's operations to expect that it will hold itself out to the eligible user public indifferently. Regarding the second prong, the Commission has determined that the eligible user public is not limited to end users but may include services offered to other carriers. See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 ¶ 785 (1987); *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 22032-33 ¶¶ 263-65 (1996) (*Non-Accounting Safeguards Order*).

⁴³ The Commission has interpreted advanced telecommunications capability under section 706 of the Act as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high- (continued....)

capabilities, telecommunications facilities, and telecommunications services? Does defining cable modem service or the cable modem platform as an advanced telecommunications capability capture all of the uses of cable modem service or only the use of a cable modem service to provide Internet services? To the extent that cable modem service and/or the cable modem platform constitutes an advanced telecommunication capability pursuant to section 706 of the Act, how does that classification affect the Commission's authority to forbear from regulation under section 10 of the Act?

23. We also invite comment on another question, that is whether cable modem service and/or the cable modem platform constitutes an information service.⁴⁴ We note that the Commission has classified the end user services commonly provided by dial-up ISPs as information services.⁴⁵ Does cable modem service and/or the cable modem platform fit within this definition? We seek comment on the implications, if any, of classifying cable modem service and/or the cable modem platform as an information service under the Act. Information service providers as such are not subject to regulation under Title II as common carriers; the fact that information service is provided "via telecommunications" does not alter that conclusion.⁴⁶ With respect to cable modem service, if a cable operator simultaneously offers a telecommunications and information service, should we, if only for definitional purposes, sever the underlying telecommunications, or the telecommunications service, from the information service offering?⁴⁷ Is there any reason to treat the cable modem service as if it were solely an information service? Should the Commission's treatment differ depending on whether the provider of cable modem

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quality voice, data, graphics and video telecommunications using any technology" which offers 200 kbps of bandwidth to and from a subscriber. *Second 706 Report* at ¶¶ 10-11. In issuing its *Second 706 Report*, the Commission considered the deployment of cable modem services. *Second 706 Report* at ¶ 29.

⁴⁴ The Act defines an "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." 47 U.S.C. § 153(20).

⁴⁵ See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Remand, 15 FCC Rcd 385, 401 ¶ 34 (1999); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11536 ¶ 73 (1998) (*Universal Service Report*).

⁴⁶ See *Universal Service Report*, 13 FCC Rcd at 11508, 11511, 11516, 11520, ¶¶ 13, 21, 33, 39. Following passage of the 1996 Act, the Commission determined that Congress intended the categories of "telecommunications service" and "information service" under the Act to be mutually exclusive, and to parallel the definitions of "basic service" and "enhanced service" developed in the Commission's *Computer II* proceeding, as well as the Modification of Final Judgment. In *Computer II*, the Commission found that enhanced service providers were not "common carriers" under the Act and therefore were not subject to regulation under Title II of the Act. *Computer II*, 77 FCC2d at 430-34, ¶¶ 120-29.

⁴⁷ We note that a company that provides both telecommunications and information services is classified as a telecommunications carrier to the extent that it is acting as a telecommunications carrier. See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15990, ¶ 995 (1996) (*Local Competition Report*).

service also owns or controls the underlying transmission platform?

24. Finally, we invite comment on whether cable modem service and/or the cable modem platform is distinct from the regulatory classifications identified above and would require a new legal and policy framework. To the extent the Commission deems it appropriate, under what authority (apart from the authority cited above) could it require cable operators to be subject to the unbundling requirements that stem from the Commission's *Computer Inquiries* or impose similar unbundling requirements?⁴⁸ For example, could the Commission use its Title I authority to achieve open access to the cable modem platform for ISPs?

B. Issues Surrounding Open Access

25. We turn now to the issue of open access. We first examine definitional issues. We then invite comment on whether open access is a desirable policy goal. If it is, we ask commenters to explore whether a market-based approach will adequately achieve that objective, or whether the Commission should adopt a regulatory, or prescriptive, approach. If commenters advocate a regulatory approach, we seek comment on the jurisdictional basis for the Commission's taking regulatory action. We inquire whether the same approach should apply to other providers of high-speed services, and what jurisdictional basis would support application of this approach. We also invite comment on the technical and operational concerns with achieving open access.

1. What Is "Open Access"?

26. How should the Commission define "open access" to cable networks? We seek comment on whether the Commission should consider, in determining the appropriate level of access, policy goals that Congress or the Commission may identify, such as the goals of promoting competition, deregulation, innovation, and the deployment of high-speed services. As discussed below, we ask commenters to recommend specific goals that can and should be accomplished by open access.

27. Currently, there is no universally accepted definition of "open access." Most open access proposals entail two broad requirements, providing unaffiliated ISPs with the right to: (i) purchase transmission capability; and (ii) access the customer directly from the incumbent cable

⁴⁸ We note that the unbundling requirements in the 1996 Act are distinct from the unbundling requirements adopted in *Computer II*. "Unbundling" as used in *Computer II* means that all facilities-based common carriers providing enhanced services in conjunction with basic services must file tariffs for the underlying basic service and acquire the service in the same manner as resellers. In the *Computer II* proceeding, which preceded the 1996 Act, the Commission classified all services offered over a telecommunications network as either basic or enhanced. A basic service consists of the offering of "transmission capability for the movement of information," whereas an enhanced service comprises any offering over the telecommunications network which is more than a basic transmission service. *Computer II*, 77 FCC 2d at 419-20 ¶¶ 93, 96-97. See also 47 C.F.R. § 64.702(a) (defining enhanced service). The Commission has determined that "information services" under the 1996 Act include all services that were considered "enhanced services" prior to the 1996 Act. See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21955-56 ¶ 102.

operator. Apart from those general requirements, however, there are numerous different technological and economic models for what open access might mean, and technological approaches for how it might be implemented.⁴⁹ Should we define open access based on the manner or degree of access we ultimately determine is necessary to achieve particular goals?

28. Industry participants have different conceptions of open access. For example, OpenNet Coalition, a group of ISP and LEC interests, defines open access as “the ability of consumers to choose the Internet service provider of their choice . . . Enabling consumers and their chosen Internet service providers to reach each other requires that Internet service providers not chosen by the cable company have the ability to purchase, on a nondiscriminatory basis, the use of ‘last mile’ communications facilities to reach consumers who are requesting their service.”⁵⁰

AOL and Time Warner present an alternative conception of open access in their Memorandum of Understanding of February 29, 2000. Under their conception, open access is achieved through negotiated commercial agreements between cable operators and ISPs operating in a free market. The prices, terms and conditions for such agreements may differ depending on the ISP’s needs and the cable operator’s resources, but will not vary based on affiliation or lack thereof.⁵¹

29. In the current environment some cable operators have entered into exclusive arrangements with one particular ISP (*e.g.*, AT&T’s arrangement with Excite@Home), and all cable Internet subscribers must pay the cable operator for the Internet service of that particular ISP even if they choose to use an alternative OSP.⁵² Although we recognize that these cable operators have recently negotiated access to their networks by certain unaffiliated ISPs, nevertheless, these cable operators currently are not legally prohibited from having an exclusive relationship with one particular ISP.⁵³ Should the Commission consider the approach of achieving openness through negotiated commercial agreements between cable operators and unaffiliated ISPs an open access model? Does this model provide an appropriate level of openness?

30. Based on this background, we ask for comment, in particular, on three possible models. Under one open access model, no particular connecting ISP has a privileged or preferred relationship with the cable operator; rather, each ISP purchases transmission capability and customer access from the cable operator on nondiscriminatory prices, terms and conditions, and

⁴⁹ See *infra* Section III.B.5.

⁵⁰ OpenNet Coalition White Paper: “Frequently Asked Questions about AT&T’s Acquisition of MediaOne, Open Access, and the Public Interest,” at 23 (Sept. 17, 1999).

⁵¹ Memorandum of Understanding Between Time Warner, Inc. and America Online, Inc. Regarding Open Access Business Practices (Feb. 29, 2000) (*AOL-Time Warner MOU*).

⁵² Because only one ISP (chosen by the cable operator) is providing connectivity to the Internet, the subscriber who uses an alternative OSP is in fact paying the alternative OSP for its content, rather than for a connection to the Internet.

⁵³ As discussed below, to the extent that cable modem customers have grown accustomed to choosing their ISPs in the narrowband context, cable companies may perceive and choose to satisfy a market demand for such choice in the high-speed context.

the cable operator manages the network on a nondiscriminatory basis. Under a second open access model, multiple ISPs purchase transmission capability and customer access from the cable operator on nondiscriminatory prices, terms, and conditions, but an affiliated or preferred ISP manages the network on a nondiscriminatory basis. Under a third model, multiple unaffiliated ISPs would obtain access to the cable modem platform according to agreements negotiated between those ISPs and cable operators. We invite comment on whether open access should be conceptualized according to any of these proposed models, or according to some other model. Under the first two models, should cable operators be required to provide unaffiliated ISPs “nondiscriminatory” access, a standard borrowed from common carrier regulation, or some other standard? We also seek comment on how a decision to pick any of these open access models for cable-based networks would affect other providers of high-speed services. We recognize that an open access environment may develop using each, or a combination, of these models. In addition, we ask whether, under the second model, the affiliated or preferred ISP will have a competitive advantage over other ISPs. We also seek comment on the impact, if any, of adopting a particular model of open access on other high-speed service providers, including those using wireless, satellite, broadcast, and unlicensed spectrum technologies.

31. With respect to any of the models discussed herein, including those that allow one ISP to manage the network, we invite comment on the extent to which affiliated and unaffiliated ISPs would be capable of accessing network operations and management capabilities. In particular, we seek comment on the extent of ISP access to or control over operations support systems used in managing the network or the set top box or cable modem itself, including maintenance and repair, customer care and other operations functions. Commenters should also address whether their model includes identical operations support systems interfaces for affiliated and unaffiliated ISPs. We also seek comment on whether the entity that controls the design and deployment of the set top box or cable modem has an advantage in terms of access, applications, or content. Specifically, what obstacles, if any, would the functions embedded in the set top box or cable modem present to unaffiliated ISPs that seek to deploy innovative services? For example, would access to the software or firmware embedded in the set top box or cable modem increase an ISP’s cost in such a way as to affect the ISP’s incentive to deploy new services? We particularly invite manufacturers of set top boxes and cable modems to address these and other questions related to the capabilities embedded in their products.

2. Is Open Access A Desirable Policy Goal?

32. We invite comment on the policy considerations that should underlie our analysis of open access issues. Specifically, we invite comment on the desirability of open access as a policy goal. Should the Commission encourage open access to the cable modem platform? If so, what are the appropriate underlying goals that the Commission should seek to achieve through such openness, and what degree of openness is necessary to achieve those goals? Is open access necessary, for example, to benefit consumers or otherwise achieve policy objectives identified by Congress or the Commission, such as promoting competition, deregulation, innovation, and investment in and deployment of high-speed services? What are the best means for the Commission to facilitate the deployment of high-speed services in a manner that benefits consumers? We also ask what costs may be associated with open access and how those costs

compare to the benefits of open access.

33. More specifically, commenters should address the services that ISPs currently provide and what new services will likely be offered by ISPs as the Internet enters the high-speed era. Which of these new services, if any, will require ISPs to obtain nondiscriminatory access to the cable modem platform as opposed to other levels or types of access? To the extent nondiscriminatory access is required, why is it required? What are the potential harms of failure to achieve open access? In what specific ways is competition among ISPs important to ensure the widespread availability of high-speed, high-quality services at competitive rates? What benefits does a competitive ISP market bring to other areas of the Internet, such as innovation among content and application providers? How would competition between ISPs affect consumer choice and value, including access by persons with disabilities?

3. If Open Access Is A Desirable Policy Goal, What Are The Most Appropriate Means Of Achieving That Objective?

34. If open access is a desirable policy goal, we invite comment on whether a market-based approach will adequately achieve that objective, or whether the Commission should adopt another approach. Commenters should discuss the implications of our determination of the framework for cable modem services and access to the cable modem platform for providers of similar services using other technologies, such as xDSL, satellite, broadcast, or wireless technologies.

a. Should The Commission Continue A Market-Based Approach?

35. We invite comment on whether market-based approaches are sufficient to achieve the level of access by ISPs to the cable modem platform that the Commission determines is appropriate. Considering the current conditions in the market for cable high-speed services, is there a need for mandated open access or will market forces operate to achieve open access? Specifically, how will mandated open access impact unaffiliated ISPs and OSPs, unaffiliated content providers, and end users? The decision to provide open access voluntarily may depend on the degree of competition in the provision of local facilities. Are the harms from failure to achieve open access impacted by the presence of competing local facilities? Are any of these harms likely to take place without government intervention? If so, why? To what extent is such regulatory intervention necessary, and what costs would be associated with that intervention? What should be the Commission's role, if any, in promoting and encouraging competition among ISPs?

36. We seek to understand the economic incentives of cable operators, both outside of and under alternative open access models. For example, do cable operators have any incentive to cooperate with multiple ISPs that seek access to their platforms? Do cable operators have an incentive to allow non-exclusive access in order to increase the number of end users purchasing cable modem services? Do cable operators that are vertically integrated with an ISP or OSP have less incentive to provide open access in order to decrease competition for the integrated ISP or OSP? How do cable operators weigh these competing incentives, and what might induce a vertically integrated cable operator to provide open access? We also seek to determine how, in a market-based approach, multiple ISPs will be provided access, and how and by whom these ISPs

will be chosen. Is the number of ISPs under a market-based approach likely to be sufficient to achieve the goals of open access? Why or why not? A vertically integrated cable operator may choose to provide access to ISPs or OSPs that do not compete with the cable operator's ISP or OSP, in order to increase the number of end users purchasing cable modem services. Are there significant differences in ISPs? In OSPs? How different, if at all, are those incentives from the incentives of non-vertically integrated cable operators to offer end users a diverse set of ISPs and OSPs? What incentives do these operators have *not* to frustrate end users' access to unaffiliated content? What specific evidence is there that operators have denied their cable modem customers access to unaffiliated content to date? Will the incentives to provide open access change as competition increases in the provision of high-speed access services by DSL providers and providers of other high-speed services? What role, if any, do consumer expectations regarding the availability of multiple, unaffiliated ISPs in the traditional narrowband wireline context have on cable operators' incentives to provide similar availability over cable modem platforms?

37. We also seek comment on the reported development of market-based access initiatives. Initially, cable operators signed exclusive agreements with one ISP (most notably Excite@Home and RoadRunner). Currently, however, there appears to be some movement toward allowing access to additional ISPs. For example, AT&T released a letter, co-signed with Mindspring Enterprises, Inc., promising to allow Mindspring and other ISPs access to its cable platform once its exclusivity agreement with Excite@Home expires in 2002.⁵⁴ Similarly, Time Warner, Inc. and AOL released a Memorandum of Understanding promising ISPs open access to Time Warner's cable platform once its exclusivity agreement with RoadRunner expires in 2001.⁵⁵ There are further indications that cable operators are moving toward allowing other ISPs access to their platform. Time Warner, for example, recently announced that it had reached an agreement with Juno Online Services, Inc., whereby Juno will become the first unaffiliated ISP to use Time Warner cable systems for the provision of high-speed Internet services.⁵⁶

38. We seek information on the development and importance of this trend. First, we seek information on the extent to which cable operators are already providing access to unaffiliated ISPs.⁵⁷ Are new entrants more or less likely than incumbents to provide access to unaffiliated ISPs? Parties should discuss any ongoing trials testing the technical aspects of allowing access to multiple ISPs. We also invite parties to assess the viability of the methods used to provide

⁵⁴ Letter from David N. Baker, Vice President, Mindspring Enterprise, Inc., James W. Cicconi, General Counsel and Executive Vice President, AT&T Corp., and Kenneth S. Fellman, Chairman, FCC Local & State Government Advisory Committee to William E. Kennard, Chairman, FCC, CS Docket No. 99-251 (filed Dec. 6, 1999).

⁵⁵ *AOL-Time Warner MOU*.

⁵⁶ See Time Warner, Inc., *Juno and Time Warner Reach Agreement to Offer Juno Express Over Time Warner Cable Systems* (July 31, 2000) (press release), http://cgi.timewarner.com/cgi-bin/corp/news/index.cgi?template=article&article_id=200294 (viewed Aug. 24, 2000).

⁵⁷ For instance, reports indicate that small cable operators are partnering with local ISPs in order to share cable plant upgrade costs in exchange for ISP access to the cable system. See Comments of American Cable Association (filed April 24, 2000) on Time Warner and America Online Applications for Transfers of Control and Associated Public Interest Statement, CS Docket No. 00-30.

multiple access in those trials. We are particularly interested in the scalability of the configuration of these trials. We are also interested in the ability of ISPs to offer network capability, including multicasting, caching, and different classes of services, as well as services such as streaming media and voice, absent regulatory intervention. To what extent are these current practices and trends sufficient to provide the degree and manner of access by unaffiliated ISPs that is necessary to promote deployment of high-speed services, competition, deregulation, and other goals contemplated by the Act?

39. We are further interested in assessments of the current pledges by cable operators for future open access. Are these pledges specific enough to guarantee open access once they are implemented? To what extent is such eventual implementation necessary to promote deployment of high-speed services, competition, deregulation, and other goals contemplated by the Act? If such pledges are lacking in necessary specificity, what additional details or commitments would increase the likelihood that they will eventually be implemented without government intervention? Can such additional details and commitments be fleshed out without favoring certain unaffiliated ISPs or business plans over others?

40. We recognize that a number of business models for open access may develop. For example, in one business model, a cable operator would maintain the billing relationship with the customer and compensate the ISP. Under another business model, an ISP would maintain the billing relationship with the customer and compensate the cable operator. Alternatively, a cable operator and an ISP could independently bill the customer. How do these or other potential business models affect the incentives for achieving open access?

b. Should The Commission Act To Ensure Open Access?

41. We now turn to the question of whether the Commission should take action to achieve open access. We stress that, before we will take any regulatory action on this issue, we must first determine that open access is desirable as a policy matter and that market forces are insufficient to achieve this objective. We begin by seeking comment on the Commission's authority to require open access. Does the Commission have explicit authority to require open access under Title II or Title VI? If not, can the Commission exercise its ancillary authority under Title I as it pertains to our express authority under Title II or Title VI?⁵⁸

42. Assuming the Commission has the jurisdiction to require open access, and assuming that open access is desirable as a policy matter, we seek to determine the conditions under which the Commission should mandate open access to the cable modem platform. Specifically, should the Commission intervene if a cable operator is the only facilities-based provider of high-speed services and it owns or controls the ISP providing service to end users? Should the Commission intervene if there is an actual or potential competitor to the cable operator? Commenters should describe any public interest harms that would otherwise result from closed access or requiring open access to the cable modem platform. Commenters should address whether and the extent to which such harms will be realized if ISPs seeking access to the cable modem platform offer

⁵⁸ See *United States v. Southwestern Cable Co.*, 392 U.S. 157, 172-78 (1968).

services that are not different from or more attractive to consumers than those provided by the affiliated ISP. Commenters should also describe how requiring open access would alleviate the harms associated with closed access, and discuss any costs that may result from requiring open access. In addition, commenters should address how imposing regulations in this area would comport with the Commission's historical policy of not regulating the Internet. Commenters should compare specifically the advantages and disadvantages associated with regulatory intervention designed to prevent future, potential bottlenecks or impediments to competition and intervention designed to address such impediments that have clearly manifested themselves.

4. Should A Uniform Framework Apply To All Providers Of High-Speed Services?

43. High-speed services are provided using a variety of public and private networks that rely on different network architectures and transmission paths including wireline, wireless, satellite, broadcast, and unlicensed spectrum technologies.⁵⁹ Wireline incumbent and competitive LECs currently provide high-speed services in conjunction with affiliated or unaffiliated ISPs and operate pursuant to Title II of the Act. For example, pursuant to the requirements of the Commission's *Computer Inquiries*, certain common carriers must allow ISPs to purchase basic transmission services on a nondiscriminatory basis.⁶⁰ As a result, end users are typically given a choice of ISPs, which could be accessed over the telephone network. Cable operators have traditionally provided service pursuant to Title VI of the Act and do not currently operate pursuant to rules requiring end user ISP choice. Wireless and satellite providers, while subject to the Commission's licensing rules and authority to allocate and manage spectrum under Title III, are not currently required to provide network access to multiple ISPs.⁶¹ Likewise, entities providing Internet service pursuant to Part 15 of the Commission's rules are under no obligation to allow multiple ISPs to access their networks.⁶²

44. We seek comment on whether uniform requirements for high-speed services provided

⁵⁹ Depending upon the network, data may travel from the sender to the recipient over various architectures and transmission paths such as copper wire, cable, terrestrial wireless radio spectrum, satellite radio spectrum, or a combination of these and other media. In addition, data may be transmitted using different communications protocols that manage and direct traffic at different layers of a particular network.

⁶⁰ Originally, the Commission in *Computer I* required all carriers to provide enhanced services through structurally separate subsidiaries. In *Computer II*, while maintaining that "the importance of the control of local facilities cannot be overstated" in its risk of creating an access bottleneck, the Commission conducted a cost benefit analysis and concluded that rules such as requiring facilities-based carriers to unbundle transport from enhanced service were sufficient to protect the enhanced service market. Thus, requiring structural separation for smaller carriers would not be necessary. The Commission concluded that AT&T and GTE had greater incentive and resources to discriminate in favor of their affiliated enhanced service providers (ESPs) and could efficiently create separate subsidiaries and therefore required them to operate their affiliated ESPs through structurally separate subsidiaries. *Computer II* at ¶¶ 18, 215-31.

⁶¹ See 47 U.S.C. § 332 *et seq.* (wireless providers); 47 U.S.C. § 151 *et seq.* (satellite providers).

⁶² See 47 C.F.R. § 15.1 *et seq.*

using different platforms would facilitate the deployment of all such services, and whether we could implement uniform requirements consistent with our statutory mandate. If we determine that a regulatory approach is warranted, could the legal framework we establish apply to incumbent and competitive LECs, as well as cable operators? Could the legal framework apply to other providers of high-speed services including those that employ wireless, satellite, broadcast, and unlicensed spectrum technologies? If so why? If not, why not? In deciding whether the legal framework should apply to a particular high-speed provider, should it matter whether the provider has market power or is vertically integrated?⁶³ Should it matter that some providers operate under common carrier requirements to serve the public indifferently? Should it matter that some providers must set aside a portion of capacity for purposes other than high-speed services? Should it matter whether the provider is subject to competition from other providers of high-speed services in the geographic area in which it operates?

45. In determining whether to impose the same regulations on different types of providers of high-speed services, what impact, if any, should we give to the fact that the Act itself imposes different obligations on different service providers and technologies, despite Congress' expectation that providers would begin to compete in new markets (*i.e.*, cable companies entering the local telephone market)? To the extent the Commission attempts to achieve goals such as competitive neutrality, how should the Commission define these goals? For example, should the Commission attempt to achieve competitive neutrality by imposing the same particular requirements on competing providers of a given service, or should the Commission ensure only that the *overall* regulatory burdens imposed on such competitors are roughly equal? Should the notion of competitive neutrality compensate for market or economic advantages that incumbent providers may have over newer entrants, particularly entrants that are beginning to compete in non-traditional markets (*e.g.*, cable companies carrying data processing services)? We also ask for comment on how we should decide which framework should apply when a given service could conceivably be regulated under more than one regulatory framework, as might be the case, for example, for Internet telephony. What criteria should guide the Commission's decision on this issue? In particular, if the Commission may legitimately choose between regulatory approaches, we ask commenters to address reasons for adopting one approach over another and how we should consider public interest obligations arising under one approach and not another.

46. In conducting this analysis, should technological differences affect our analysis of which regulatory regime, if any, should apply? Are there any differences or similarities in the inputs used to provide high-speed services over wireline, wireless, satellite, broadcast, and unlicensed spectrum platforms? If so, what are these similarities or differences?

5. What Are The Technical And Operational Issues Associated With Open Access?

47. Various concerns have been raised before the Commission concerning the technical and operational issues surrounding open access to the cable modem platform. We seek comment

⁶³ By "vertically integrated" we mean a provider that owns both underlying transmission facilities and owns or controls an affiliated ISP that provides Internet services to end users over these underlying transmission facilities.

on similar problems concerning other high-speed platforms, including those using wireless, satellite, broadcast, and unlicensed spectrum technologies. At this point, it is well accepted that some form of open access to the cable modem platform is possible. It is apparent, however, that there are remaining technical and operational issues concerning open access to the cable modem platform. We seek comment on these issues.

48. To highlight some of the technical and operational issues, we ask what is the meaning of “interconnection” in this context? At what points in the cable network can ISPs interconnect? Are there technically superior locations for ISP interconnection, either from the ISP’s perspective or the cable operator’s perspective? Does interconnection at other locations yield competitively significant disadvantages for unaffiliated ISPs? If so, what are these disadvantages? Are there multiple methods for implementing open access to cable networks, and to what extent is each method scalable to allow access by the number of ISPs necessary to achieve the goals underlying open access? Will individual subscribers have access to multiple ISPs simultaneously, or will a subscriber have to unsubscribe from one ISP before gaining access to a second? Does use of the same cable plant by multiple ISPs create problems of congestion and network management? What type of bandwidth and quality of service arrangements will cable operators make available? Who will be responsible for network management and customer service? Under an open access regime, what control will the cable operator have over the Internet content available to subscribers? Who will control access to the customer? Will ISPs have the option of marketing and billing their service over the cable platform directly to the consumer or, alternatively, the option of contracting with the cable company or third parties for this service? What standard(s) should the Commission apply in determining whether access is sufficiently open (nondiscrimination, reasonable opportunity to contract in good faith, etc.)? What steps can be taken to assure that unaffiliated ISPs’ access to cable networks satisfies such standards in terms of pricing, service, interconnection, and other relevant factors?

49. We recognize that cable systems support both Internet service as well as analog and digital television channels. We seek comment on the potential services that may develop that make use of a combination Internet and television broadcast channel platform. For example, will problems arise by allowing the affiliated or preferred ISP the ability to combine Internet services to the television broadcast channel?

C. The Commission’s Options

50. Depending on the classification of cable modem service and the cable modem platform, as well as the desired policy goals, the Commission has various options available to it. In this section, we invite parties to comment on particular courses of action, and to propose other possible outcomes. If market incentives continue to work to foster a competitive environment, the Commission may find regulatory intervention to be unnecessary. Alternatively, the Commission may choose to initiate a rulemaking proceeding or forbear from enforcing statutory and regulatory requirements.

1. Should The Commission Continue Its Current Approach?

51. If the Commission finds that the classification of cable modem services and/or the

cable modem platform does not introduce additional obligations upon cable operators and that market incentives will continue to foster a competitive environment for high-speed services, the Commission may find further action unnecessary. We invite comment on the suitability of this course of action, and whether this course of action ensures adequate deployment and consumer access to high-speed services.

2. Should The Commission Initiate A Rulemaking Proceeding?

52. In light of the regulatory classification and desired policy goals, we ask whether there is a need for the Commission to initiate a rulemaking to consider adopting rules, policies, and regulations governing cable modem service or access to the cable modem platform. We invite suggestions for changes in our existing rules or policies for additional regulations pertaining to cable modem services and other high-speed services, and whether the proposed changes in our rules and policies ensure adequate deployment of and consumer access to high-speed services.

3. Should The Commission Exercise Its Forbearance Authority?

53. If the Commission finds that the marketplace is working and classifies cable modem service and/or the cable modem platform as a telecommunications service, it may choose to forbear from enforcing applicable regulatory requirements. Section 10(a) of the Act grants the Commission authority to forbear from applying any regulation or provision of the Act to “a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets,” if it determines that: (1) enforcement of that regulation or provision is not necessary to ensure just, reasonable and nondiscriminatory charges, practices, classifications or regulations; (2) enforcement of that regulation or provision is not necessary to protect consumers; and (3) forbearance is consistent with the public interest.⁶⁴ To the extent the Commission determines that cable modem service and/or the cable modem platform is a telecommunications service, we invite comment on whether the Commission should exercise its forbearance authority, and from what statutory provisions or rules it should forbear. Are there provisions and rules from which forbearance is not appropriate?⁶⁵ Parties should address how forbearance from any particular provision or rule would satisfy the necessary statutory criteria. Parties should also discuss for which class of telecommunications carriers or telecommunications services and in which geographic markets the statutory showing would be met.

54. Should the Commission forbear from enforcing section 251(a)’s interconnection requirement in this context? In the event that cable operators are found to be common carriers providing an information service, and therefore subject to the requirements stemming from the *Computer Inquiries*, should the Commission forbear from enforcing the requirement to unbundle basic service from enhanced? What role in its analysis, if any, should the Commission give to the

⁶⁴ 47 U.S.C. § 160(a). Section 10(e) precludes a state from applying or enforcing provisions of federal law where the Commission has decided to forbear. 47 U.S.C. § 160(e).

⁶⁵ See, e.g., 47 U.S.C. § 254(d) (universal service contribution); 47 U.S.C. § 201 (service and charges); 47 U.S.C. § 202 (discrimination and preferences).

possibility that forbearance will provoke competitors to enter the market? If cable modem service or the cable modem platform is a local exchange service and defined as telephone exchange or exchange access service, are providers of cable modem service or the cable modem platform local exchange carriers subject to section 251(b) of the Act? Commenters should address whether forbearance would be appropriate if cable modem service and/or the cable modem platform is classified as a local exchange service.

55. We seek to determine the conditions under which the Commission should forbear from imposing or enforcing open access obligations. Specifically, should the Commission forbear if there are potential or actual competing facilities-based providers of high-speed services? Parties should describe how competition in the provision of high-speed services could act to alleviate any harms that may warrant the imposition of open access obligations. Parties should describe the specific conditions that may demonstrate to the Commission that competition is sufficient to forbear from enforcing open access obligations.

56. To the extent that the Commission finds that forbearance from statutory provisions or our rules is appropriate with respect to cable modem service and/or the cable modem platform, should the Commission also forbear from enforcing these provisions or rules as applied to other providers of high-speed services? Should the Commission use its forbearance authority to achieve competitive neutrality with respect to all providers of high-speed services? If so, why? If not, why not? Other than competitive neutrality, are there other goals the Commission should attempt to achieve if it decides to regulate in this area? If so, what are these other goals? Should the Commission emphasize some of these goals more than competitive neutrality or other goals? Commenters should provide a detailed explanation of how the Commission's section 10 analysis should be applied to various providers of high-speed services.

IV. PROCEDURAL MATTERS

57. Pursuant to sections 1.415, 1.419, and 1.430 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, 1.430, interested parties may file comments within 45 days after publication in the Federal Register, and reply comments within 75 days after publication in the Federal Register. All filings should refer to GEN Docket No. 00-185. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.⁶⁶ Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket number, which in this instance is GEN Docket No. 00-185. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address.>" A sample form and directions will be sent in reply.

58. Parties who choose to file by paper must file an original and four copies of each filing.

⁶⁶ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24,121 (1998).

All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, Room TW-B204, 445 12th St. S.W., Washington, D.C. 20554. Regardless of whether parties choose to file electronically or by paper, parties should also serve: (1) Johanna Mikes, Common Carrier Bureau, 445 12th Street, S.W., Room 5-C163, Washington, D.C. 20554; (2) Christopher Libertelli, Common Carrier Bureau, 445 12th Street, S.W., Room 5-C264, Washington, D.C. 20554; (3) Carl Kandutsch, Cable Services Bureau, 445 12th Street, S.W., Room 3-A832, Washington, D.C. 20554; (4) Douglas Sicker, Office of Engineering and Technology, 445 12th Street, S.W., Room 7-A325, Washington D.C. 20554; (5) Robert Cannon, Office of Plans & Policy, 445 12th Street, S.W., Room 7-B410, Washington, D.C. 20554; and (6) the Commission's copy contractor, International Transcription Service, Inc. (ITS), 445 12th Street, S.W., CY-B402, Washington, D.C. 20554, (202) 857-3800, with copies of any documents filed in this proceeding. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street, S.W., Washington, D.C. 20554.

59. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to Janice Myles, Common Carrier Bureau, 445 12th Street, S.W., Room 5-C327, Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using WordPerfect 5.1 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the docket number, in this case, GEN Docket No. 00-185), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, N.W., Washington, D.C. 20036.

60. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules.⁶⁷ We also direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission. We also strongly encourage that parties track the organization set forth in this *Notice of Inquiry* to facilitate our internal review process.

61. Pursuant to 47 C.F.R. § 1.200(a), which permits the Commission to adopt modified or more stringent *ex parte* procedures in particular proceedings if the public interest so requires, we announce that this proceeding will be governed by "permit-but-disclose" *ex parte* procedures that are applicable to non-restricted proceedings under 47 C.F.R. § 1.1206. Designating this proceeding as "permit-but-disclose" will provide an opportunity for all interested parties to receive notice of the various technical, legal, and policy issues raised in *ex parte* presentations

⁶⁷ See 47 C.F.R. § 1.49.

made to the Commission in the course of this proceeding. This will allow interested parties to file responses or rebuttals to proposals made on the record in this proceeding. Accordingly, we find that it is in the public interest to designate this proceeding as “permit-but-disclose.”

62. Parties making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required. See 47 C.F.R. § 1.1206(b)(2), as revised. Other rules pertaining to oral and written presentations are set forth in Section 1.206(b) as well. Interested parties are to file any written *ex parte* presentations in this proceeding with the Commission Secretary, Magalie Roman Salas, 445 12th Street, S.W., TW-B204, Washington, D.C. 20554, and serve with copies: (1) Johanna Mikes, Common Carrier Bureau, 445 12th Street, S.W., Room 5-C163, Washington, D.C. 20554; (2) Christopher Libertelli, Common Carrier Bureau, 445 12th Street, S.W., Room 5-C264, Washington, D.C. 20554; (3) Carl Kandutsch, Cable Services Bureau, 445 12th Street, S.W., Room 3-A832, Washington, D.C. 20554; (4) Douglas Sicker, Office of Engineering and Technology, 445 12th Street, S.W., Room 7-A325, Washington D.C. 20554; (5) Robert Cannon, Office of Plans & Policy, 445 12th Street, S.W., Room 7-B410, Washington, D.C. 20554; and (6) International Transcription Service, Inc. (ITS), 445 12th Street, S.W., CY-B402, Washington, D.C. 20554, (202) 857-3800.

63. Because many of the matters on which we request comment in this Notice may call on parties to disclose proprietary information such as market research and business or technical plans, we suggest that parties consult 47 C.F.R. § 0.459 about the submission of confidential information.

64. Alternate formats (computer diskette, large print, audio recording, and Braille) are available to persons with disabilities by contacting Brian Millin at (202) 418-7426 voice, (202) 418-7365 TTY, or at bmillin@fcc.gov. This Notice of Inquiry can also be downloaded in MS Word and ASCII formats at www.fcc.gov/cib/dro.

V. ORDERING CLAUSE

65. Accordingly, IT IS ORDERED, that pursuant to authority contained in sections 4, 201-202, 303, 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154, 201-202, 303, 403, 521 and section 706 of the Telecommunications Act of 1996, this Notice of Inquiry IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary