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Federal Communications Commission (F.C.C.)

Declaratory Ruling and Notice of Proposed Rulemaking

**1 IN THE MATTER OF INQUIRY CONCERNING HIGH-SPEED ACCESS TO THE INTERNET OVER CABLE AND OTHER FACILITIES
Internet Over Cable Declaratory Ruling

GN Docket No. 00-185

Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities

CS Docket No. 02-52
FCC 02-77

Adopted: March 14, 2002

Released: March 15, 2002
Comment Date: 60 days after publication of this Notice in the Federal Register

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*4798 By the Commission: Chairman Powell and Commissioner Abernathy issuing separate statements; Commissioner Copps dissenting and issuing a statement.

*4799 **I. INTRODUCTION**

1. Cable modem service provides high-speed access to the Internet,[FN1] as well as many applications or functions that can be used with that access, over cable system facilities.[FN2] The service is *4800 available to approximately 73% of U.S. households.[FN3] Along with the service's popularity, controversy has grown about its legal status under the Communications Act of 1934, as amended ("the Act"),[FN4] and about what regulatory treatment (if any) is appropriate under the law and will best serve consumers. The purpose of this proceeding is to resolve these issues.[FN5]

2. The issue of what, if any, regulatory treatment should be applied to cable modem service dates back to at least 1998, when it arose in the Commission's "First Section 706 Inquiry" about the deployment of advanced telecommunications capability.[FN6] The Commission further considered the issue in several subsequent proceedings including a complaint case,[FN7] license transfer reviews in connection with mergers involving cable operators,[FN8] and a special report by the Commis-

sion's Cable Services Bureau.[FN9] To ***4801** date, however, the Commission has declined to determine a regulatory classification for, or to regulate, cable modem service on an industry-wide basis.[FN10]

3. Following the Second 706 Inquiry, the Commission concluded that it should address the regulatory classification of cable modem service and released the Notice of Inquiry ("Notice") in this proceeding.[FN11] We have since received over 250 filings, and Commission staff have met with a variety of industry representatives, consumer advocates, and state and local government officials.

4. In considering the issues before us we are guided by several overarching principles. First, consistent with statutory mandates, the Commission's primary policy goal is to "encourage the ubiquitous availability of broadband to all Americans."[FN12] Section 706 of the Telecommunications Act of 1996 ("1996 Act")[FN13] charges the Commission with "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" by "regulatory forbearance, measures that promote competition ..., or other regulating methods that remove barriers to infrastructure investment."[FN14] Moreover, consistent with section 230(b)(2) of the Act, we seek "to preserve the vibrant ***4802** and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[FN15]

****2** 5. Second, we believe "broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market."[FN16] In this regard, we seek to remove regulatory uncertainty that in itself may discourage investment and innovation. And we consider how best to limit unnecessary and unduly burdensome regulatory costs.

6. Third, in this proceeding, as well as in a related proceeding concerning broadband access to the Internet over domestic wireline facilities,[FN17] we seek to create a rational framework for the regulation of competing services that are provided via different technologies and network architectures. We recognize that residential high-speed access to the Internet is evolving over multiple electronic platforms, including wireline, cable, terrestrial wireless and satellite. By promoting development and deployment of multiple platforms, we promote competition in the provision of broadband capabilities, ensuring that public demands and needs can be met. We strive to develop an analytical approach that is, to the extent possible, consistent across multiple platforms.

7. For the reasons discussed below, we conclude that cable modem service, as it is currently offered, is properly classified as an interstate information service, not as a cable service, and that there is no separate offering of telecommunications service. In addition, we initiate a rulemaking proceeding to determine the scope of the Commission's jurisdiction to regulate cable modem service and whether (and, if so, how) cable modem service should be regulated under the law, in light of the principles discussed above.

8. We seek comment on the regulatory implications of our finding that cable modem service is an information service, including, among other things, the extent to which state and local authorities may regulate the service. We are initiating a further proceeding in order to obtain additional comment on specific issues and to ensure that any action we take reflects the continuing evolution of cable modem service and the business of residential high-speed Internet access service.

**II. BACKGROUND**

9. *Deployment*. As of September 2001, 50.5% of U.S. households had Internet connections.[FN18] The vast majority of them subscribe to "narrowband" service provided over local telephone facilities.[FN19] Residential high-speed, or "broadband,"[FN20] Internet access service became available ***4803** after narrowband Internet access service had achieved widespread popularity.[FN21] Residential high-speed Internet access services are provided primarily over coaxial cable wires in the form of cable modem service offered by cable operators, and over copper wires in the form of digital subscriber line ("DSL") services offered by local exchange carriers ("LECs").[FN22] The services are also provided to some extent over terrestrial wireless radio spectrum by mobile and fixed wireless providers and over satellite radio spectrum by satellite providers.[FN23] Industry analysts estimate that high-speed Internet access service is now available to approximately 75-80% of all the homes in the United States via DSL or cable modem service, and approximately 11% of all households subscribe to these services today.[FN24] While there are several types of high-speed access (DSL, cable, satellite, fixed wireless), not every home has access to every type of service.[FN25] Throughout the brief history of the residential broadband business, cable modem service has been the most widely subscribed to technology, with industry analysts estimating that approximately 68% of residential broadband subscribers today use cable modem service.[FN26] Analysts estimate that about 29% of residential broadband subscribers use DSL service,[FN27] and about 3% of ***4804** subscribers use various radio-based technologies.[FN28] In the past year, some incumbent LECs have scaled back their DSL deployment plans; cable's lead over DSL has grown; and several incumbent LECs and cable operators have raised their prices for high-speed Internet access services.[FN29]

****3** 10. *Features and Applications*. Cable modem service typically includes many and sometimes all of the functions made available through dial-up Internet access service,[FN30] including content,[FN31] e-mail accounts,[FN32] access to news groups,[FN33] the ability to create a personal web page,[FN34] and the ability to retrieve information from the Internet, including access to the World Wide Web.[FN35] Because of ***4805** the broadband capability of the cable plant, however, cable modem service subscribers can access the Internet at speeds[FN36] that are significantly faster than telephone dial-up service.[FN37] As a result of that faster access, subscribers can often send and view content with much less transmission delay than would be possible with dial-up access, utilize more sophisticated "real-time" applications,[FN38] and view streaming video[FN39] content at a

higher resolution and on a larger portion of their screens than is available via narrowband.[FN40] Some cable operators also provide subscribers with access to content that the operators have created or aggregated on an Intranet specifically for the benefit of their subscribers.[FN41] For example, cable operators sometimes provide content targeted to a specific locality, much as cable operators do in their video service offerings.[FN42]

***4806** 11. Cable operators often include in their cable modem service offerings all of the services typically provided by Internet access providers,[FN43] so that subscribers usually do not need to contract separately with another Internet access provider to obtain discrete services or applications, such as an e-mail account or connectivity to the Internet, including access to the World Wide Web.[FN44] Subscribers typically have " click-through" access to any and all content and services available on the Internet.[FN45] That is, a subscriber can access the service or content of his choice by typing in the Uniform Resource Locator ("URL")[FN46] of, or clicking on a hyperlink to, the desired service or content, using the web browser chosen by the subscriber or included with the subscriber's cable modem service. Accessing the services or content of entities not affiliated with the cable operator, such as those provided by an unaffiliated Internet service provider ("ISP"), however, may require the subscriber to pay those entities an additional fee over and above the monthly subscription charge for cable modem service.[FN47]

12. *Network Architecture and Technology*. Cable systems were originally built to provide video programming in one direction, from the network to subscribers.[FN48] These systems were designed to send the same content, a package of video channels, in an analog signal format to all subscribers uniformly. Cable operators have had to invest in major improvements or system upgrades to provide cable modem service.[FN49] The typical upgrade employs what is commonly known as a hybrid fiber-coaxial ***4807** ("HFC") architecture.[FN50] The HFC architecture generally converts the typical cable tree-and-branch infrastructure to a ring or star-type infrastructure and increases the reliability and the overall bandwidth available for cable modem service, video programming, and other services.[FN51] Typically in an HFC-upgraded system, fiber optic cables are laid from the headend to neighborhood nodes.[FN52] Coaxial cables extend from the nodes to each subscriber's home. Cable operators allocate a portion of their system's spectrum (*i.e.*, bandwidth or channel capacity) for upstream and downstream data transmissions necessary for cable modem service.[FN53] At each subscriber's home, a splitter and a high-speed cable modem are installed. The splitter separates signals and sends them to different cables going to the subscriber's television and computer. The cable that goes to the computer connects with a high-speed cable modem and an Ethernet or Universal Serial Bus ("USB") interface that are attached to the computer. This modem and interface enable the cable system to communicate with the subscriber's computer, and vice versa.[FN54]

****4** 13. Cable modem service requires special equipment at the headend and in other

parts of the cable system. Often located at the headend is a Cable Modem Termination System (“CMTS”), which manages the flow of data between cable subscribers and the Internet and other equipment.[FN55] The CMTS enables the enhanced two-way capabilities essential for cable modem service.[FN56] File servers for data storage within the cable system and other types of Internet-related servers, switches, and high-speed ***4808** routers that manage data flow on the Internet are often located at regional data centers.[FN57]

14. In addition to the network improvements just described, a cable operator must establish a connection to the Internet in order to provide cable modem service.[FN58] Depending on network topologies and business arrangements between the cable operator and other entities, Internet connectivity to the cable plant can be accomplished by various methods, as discussed below in relation to business models. In one scenario, the cable operator provides the Internet connectivity, either by itself or in conjunction with a single affiliated or unaffiliated ISP. In a second scenario, the cable operator may offer more than one brand of cable modem service, in effect giving subscribers a choice of various ISPs. In this model, an unaffiliated ISP delivers its content and services over the cable system to subscribers through one of two different methods: (1) via the cable operator's (or affiliated ISP's) own Internet transport (backbone) arrangements, commonly referred to as “transit”; or (2) via a direct interconnection agreement between the cable operator (or affiliated ISP) and the unaffiliated ISP.[FN59]

15. This second method of achieving Internet connectivity in a multiple-ISP environment may require the deployment of certain additional facilities and systems depending upon the chosen technological solution, such as the installation of new routers that perform source-based routing[FN60] or destination-based routing[FN61] to allow the cable operator to selectively redirect data packets to each ISP, and sufficient operations support systems (“OSS”)[FN62] to properly maintain billing and other essential operational functions. Routing techniques, such as source-based routing, may be difficult for cable operators to manage and integrate and may present problems with regard to scalability, *i.e.*, the numbers of ISPs and subscribers that can be served.[FN63] Cable operators may also face other technical challenges in a multiple-ISP environment, such as bandwidth management, subscriber IP address assignment ***4809** management, and network security.[FN64] Multiple-ISP access is occurring in the marketplace and in trials however, using various routing techniques.[FN65]

16. Cable modem service typically requires the performance of a number of specific functions. Cable operators may self-provide all of these functions, or they may contract with affiliated or unaffiliated ISPs to provide some or all of them.[FN66] The functions can be categorized as Internet connectivity, enhanced applications, operations, and customer service.[FN67]

****5** 17. Internet connectivity functions enable cable modem service subscribers to transmit data communications to and from the rest of the Internet.[FN68] At the

most basic level, these functions include[FN69] establishing a physical connection between the cable system and the Internet[FN70] by operating or interconnecting with Internet backbone facilities.[FN71] In addition, these functions may include protocol conversion,[FN72] IP address number assignment,[FN73] domain name resolution through a domain name system ***4810** (DNS),[FN74] network security,[FN75] and caching.[FN76] Network monitoring, capacity engineering and management,[FN77] fault management,[FN78] and troubleshooting[FN79] are Internet access service functions that are ***4811** generally performed at an ISP or cable operator's Network Operations Center (NOC)[FN80] or back office and serve to provide a steady and accurate flow of information between the cable system to which the subscriber is connected and the Internet.[FN81]

18. Complementing the Internet access functions are Internet applications provided through cable modem service. These applications include traditional ISP services such as e-mail, access to online newsgroups, and creating or obtaining and aggregating content.[FN82] The cable modem service provider will also typically offer subscribers a “first screen” or “home page”[FN83] and the ability to create a personal web page.[FN84]

19. Finally, the cable modem service provider must provide practical operational and customer service functions in order for subscribers to utilize the service. The subscriber must have a computer system and a working cable modem connected via an Ethernet or USB interface to establish cable modem service.[FN85] As a result, the cable modem service provider may offer the installation of ***4812** hardware and software in the subscriber's computer, any wiring of the subscriber's premises that may be necessary, and simple and complex customer service, as well as technical support.[FN86] The cable modem service provider must also develop and implement OSS in order to properly bill, provision, and manage the accounts of its subscribers.[FN87] Finally, cable modem service providers must provide for the sales and marketing of the service to solicit and obtain new customers.[FN88]

20. *Business Models*. Cable operators offer cable modem service to their customers using a variety of business models, many of which are currently under transition. Some operators self-provide, while others provide service in conjunction with affiliated or unaffiliated entities. Some operators have chosen to employ the same model throughout all of their systems nationally, while others have chosen to utilize different models in different locales. Currently, however, most MSOs only offer one brand of cable modem service on any given cable system.[FN89]

21. Historically, most operators have self-provided cable modem service or have provided the service in conjunction with one of several ISPs specifically created and owned by the cable operators themselves. These affiliated entities provided many of the functions of cable modem service. Excite@Home, for example, was founded by a consortium of cable operators (including TCI, Cox, and Comcast) to provide comprehensive networking and systems integration services to support cable modem service.[FN90] Excite@Home filed for Chapter 11 bankruptcy protection in

September 2001 and ceased operations entirely on February 28, 2002.[FN91] Prior to its demise, however, it provided service to many financially affiliated and unaffiliated cable operators. Affiliated entities included AT&T (formerly TCI), Comcast, Cox, and Cablevision.[FN92] Unaffiliated cable operators that formed cooperative agreements with ***4813** Excite@Home included Charter, Adelphia, Insight, Cogeco, MidContinent, Videon, and MediaCom.[FN93] Another ISP, Road Runner, was also created by cable operators to provide many of the functions of cable modem service. Originally formed by Time Warner Cable, Road Runner later became a partnership between Time Warner and MediaOne.[FN94] Road Runner provided cable modem service to both operators exclusively.[FN95] High-Speed Access Corp., while created independently, was subsequently acquired in part, by Vulcan Ventures, the parent company of cable operator Charter Communications.[FN96] Historically, High Speed Access Corp. contracted with Charter Communications and several smaller operators to provide “turn key” services, which entailed not only Internet connectivity and services such as e-mail and web-hosting, but also equipment, network management, and in some cases billing and customer service functions.[FN97] In 2001, however, High Speed Access Corp. filed for bankruptcy and sold substantially all of its assets to Charter Communications, choosing to exit all of its turn key contracts with cable operators other than Charter.[FN98]

****6 *4814** 22. Excite@Home and Road Runner employed similar business and technical models. Both ISPs obtained exclusive contracts with the cable operators they served.[FN99] Both ISPs operated regional networks and provided operators with connections from the cable headend to the Internet, as well as content, e-mail, and web-hosting, and varying levels of network management, provisioning, and customer service.[FN100] Excite@Home also operated its own Internet backbone facilities.[FN101] In exchange for these services, cable operators typically paid Excite@Home or Road Runner a share of subscriber revenues.[FN102] Cable operators then combined these services of Excite@Home or Road Runner with certain other functions that they typically self-provided, including, in some cases, owning and operating the CMTS, cable modem rental, customer service administration, and cable modem installation.[FN103] The integrated service provided by these operators was co-branded. For example, Cox provided service under the brand Cox@Home, while Comcast provided service under the brand Comcast@Home, and Cablevision has provided service to a limited number of customers under the brand Optimum@Home.[FN104] AT&T has provided service under the brands AT&T@Home and AT&T Road Runner.[FN105]

23. Although many cable operators have traditionally entered into cooperative agreements with Excite@Home or Road Runner to provide cable modem service, some operators have chosen from the start to self-provide all of the functions included in their cable modem service offering on some, if not all, of their systems. For example, Cablevision has long provided cable modem service primarily through its self-branded, self-operated, Optimum Online service.[FN106] Cox and Adelphia have also provided self-branded, self-operated cable modem service in some of their systems, branded as Cox Express and Adelphia Powerlink, respectively.[FN107]

***4815** 24. Finally, several operators have provided cable modem service in conjunction with ISPs not financially affiliated with any cable operator. Some of the smaller cable operators, for example, have historically contracted with independent ISPs, such as The ISP Channel, to obtain turn key service,[FN108] which entailed not only Internet connectivity and services such as e-mail and web-hosting, but also equipment, network management, and in some cases billing and customer service functions that larger operators normally have self-provided.[FN109] The ISP Channel and High Speed Access Corp., however, no longer provide turn key services, and the number of turn key providers is dwindling.[FN110] Cable operators using independent ISPs to provide cable modem service have chosen in many cases to re-brand the service as their own or to co-brand the service. Charter Communications, for example, has contracted with EarthLink in several markets to provide cable modem service, and then rebranded the service as Charter Pipeline.[FN111]

25. It bears repeating that cable modem service subscribers, by “click-through” access, may obtain many functions from companies with whom the cable operator has not even a contractual relationship.[FN112] For example, a subscriber to Comcast's cable modem service may bypass that company's web browser, proprietary content, and e-mail. The subscriber is free to download and use instead, for example, a web browser from Netscape,[FN113] content from Fox News,[FN114] and e-mail in the form of Microsoft's “Hotmail.”[FN115] Whether the subscriber chooses to utilize functions offered by his cable modem service provider or obtain them from another source, these functions currently are all included in the standard cable modem service offering.

****7** 26. Many of the business models described above are currently under transition, due to several noteworthy events. First, AOL Time Warner, Comcast, and AT&T have all embarked on a multiple-ISP approach to offering cable-modem service. Time Warner began offering a choice of ***4816** provider after Road Runner's exclusivity with Time Warner was terminated on December 31, 2000 in conjunction with its merger with AOL, and in accordance with conditions imposed on the merger by the FTC.[FN116] As of January 2002 AOL Time Warner was offering cable modem service using both affiliated and unaffiliated ISPs on all systems in its 20 largest divisions with a choice of three national ISP services.[FN117] In March, AOL Time Warner added four more markets.[FN118] On February 26, 2002, Comcast announced that it had negotiated an agreement to offer United Online's NetZero and Juno high-speed Internet services to Comcast customers in two major metropolitan areas, within 90 days of the agreement.[FN119] On March 12, 2002, AT&T announced an agreement to offer EarthLink high-speed cable ***4817** Internet service to its consumers in the greater Boston and Seattle markets.[FN120]

27. Second, as noted above, in September 2001, Excite@Home filed for Chapter 11 bankruptcy protection, and was forced to liquidate its assets to pay its creditors.[FN121] As a result many of the nation's largest cable operators, including AT&T, Cox, Comcast, Insight and Charter were forced either to self-provide all of the functions necessary to offer cable modem service in the regions in which they

had used Excite@Home, or to adopt alternative business and technical models.[FN122] As a result of the termination of its relationship with Excite@Home, for example, AT&T constructed a new network to enable it to self-provide cable modem service to subscribers.[FN123]

28. Finally, other MSOs, have been conducting or have announced that they will conduct technical trials to determine how cable modem service can be offered using multiple ISPs, as AOL Time Warner is now doing, and AT&T and Comcast propose they will do. Cox and Charter both announced technical trials of multiple ISP service. While Cox began a technical trial of multiple ISP-service with AOL and EarthLink in the third quarter of 2001, Charter has since decided not to pursue a multiple ISP ***4818** trial.[FN124]

29. As discussed above, the multiple-ISP environment requires a re-thinking of many technical, operational, and financial issues, including implementation of routing techniques to accommodate multiple ISPs,[FN125] Quality of Service,[FN126] and the compensation, billing, and customer service arrangements between the cable operator and the ISPs.[FN127] While much more could be said regarding these issues, it is clear that they center around the difficulties of trying to modify a service designed to be provisioned by a single cable modem service provider to allow the provisioning of cable modem service by multiple service providers.

30. *Conclusion*. As the foregoing description makes clear, the business relationships among cable operators and ISPs and their offerings to consumers are still evolving through negotiations and commercial decisions. Customers, for their part, are still learning the capabilities of cable modem service and deciding which applications they prefer. As we address the issues raised in this proceeding, we are mindful that the broadband market in general and cable modem services in particular are still evolving and that regulatory decisions will affect their development. We anticipate that further developments in this market will inform our consideration of the issues presented in the Notice of Proposed Rulemaking that we are initiating herein.

## III. DECLARATORY RULING: STATUTORY CLASSIFICATION OF CABLE MODEM SERVICE

### A. Background

****8** 31. In the Notice, we raised questions about the appropriate legal and policy framework for cable modem service.[FN128] Cable modem service, for purposes of this proceeding, is a service that uses ***4819** cable system facilities to provide residential subscribers with high-speed Internet access, as well as many applications or functions that can be used with high-speed Internet access.[FN129] Parties advocate several different legal classifications for cable modem service, including "cable service,"[FN130] " information service,"[FN131] both cable service and information service,[FN132] a combination of "telecommunications service"[FN133] and information service,[FN134] and "advanced telecommunications capability."[FN135] In advocating their positions, the parties rely to varying de-

grees on statutory definitions, on the components and functions that make up cable modem service, on the fundamental policies stated in the Act, and on past Commission decisions.

32. The Communications Act does not clearly indicate how cable modem service should be classified or regulated; the relevant statutory provisions do not yield easy or obvious answers to the questions at hand; and the case law interpreting those provisions is extensive and complex. The technologies and business models used to provide cable modem service are also complex and are still evolving. As the Supreme Court recently observed in connection with the Commission's interpretation of the Pole Attachment Act and its application to cable modem service, "the subject matter here is technical, complex, and dynamic; and, as a general rule, agencies have authority to fill gaps where statutes are silent."[FN136]

33. In accordance with that responsibility, we herein address the classification of cable modem service for purposes of the Act. Our analysis begins, as always, with the language of the statute. We then consider the factual record in this proceeding, and particularly the descriptions by cable operators and others of how cable modem service is provided today and what functions it makes available to subscribers and to ISPs. We conclude that cable modem service as currently provided is an interstate information service, not a cable service, and that there is no separate telecommunications service offering to subscribers or ISPs.

***4820 B. "Information Service" or "Telecommunications Service" Classification**

34. Because the classification of cable modem service turns on statutory interpretation, we begin with a review of relevant statutory definitions. The 1996 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."[FN137] "Telecommunications" is defined in turn 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."[FN138] 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."[FN139]

****9 *4821** 35. None of the foregoing statutory definitions rests on the particular types of facilities used. Rather, each rests on the function that is made available.[FN140] Accordingly, we examine below the functions that cable modem service makes available to its end users. The Commission's prior analysis regarding Internet access service informs our analysis.

36. In the *Universal Service Report*, the Commission found that Internet access

service is appropriately classified as an information service, because the provider offers a single, integrated service, Internet access, to the subscriber. The service combines computer processing, information provision, and computer interactivity with data transport, enabling end users to run a variety of applications.[FN141] In the *Universal Service Report*, the Commission concluded that "Internet access providers do not offer subscribers separate services - electronic mail, Web browsing, and others - that should be deemed to have separate legal status."[FN142] Rather, the Commission examined specific uses of Internet access in order "to understand the nature of the functionality that an Internet access provider offers."[FN143]

37. The *Universal Service Report* provides several specific examples of functions that Internet access service providers typically include in their service, including e-mail, newsgroups, and the ability to create a web page that is accessible by other Internet users.[FN144] In addition, Internet Access service generally includes using the DNS.[FN145] The DNS is an online data retrieval and directory service. The DNS is a distributed system, where the data may be replicated in multiple, geographically dispersed server systems. The administration of the DNS is hierarchical, and is routinely delegated among a great many independent organizations. It is most commonly used to provide an IP address associated with the domain name (such as www.fcc.gov) of a computer; however, the DNS is also routinely used to perform reverse address-to-name lookups[FN146] and to identify and locate e-mail servers.[FN147] In addition, the DNS is ***4822** flexible and can be enhanced, so that it is capable of supporting new functionality.[FN148] The DNS constitutes a general purpose information processing and retrieval capability that facilitates the use of the Internet in many ways.

38. E-mail, newsgroups, the ability for the user to create a web page that is accessible by other Internet users, and the DNS are applications that are commonly associated with Internet access service.[FN149] Each of these applications encompasses the capability for "generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."[FN150] Taken together, they constitute an information service, as defined in the Act. Consistent with the analysis in the *Universal Service Report*, we conclude that the classification of cable modem service turns on the nature of the functions that the end user is offered. We find that cable modem service is an offering of Internet access service, which combines the transmission of data with computer processing, information provision, and computer interactivity, enabling end users to run a variety of applications.[FN151] As currently provisioned, cable modem service supports such functions as e-mail, newsgroups, maintenance of the user's World Wide Web presence, and the DNS.[FN152] Accordingly, we find that cable modem service, an Internet access service, is an information service. This is so regardless of whether subscribers use all of the functions provided as part of the service, such as e-mail or web-hosting,[FN153] and regardless of whether every cable modem service provider offers each function that ***4823** could be in-

cluded in the service. As currently provisioned, cable modem service is a single, integrated service that enables the subscriber to utilize Internet access service through a cable provider's facilities and to realize the benefits of a comprehensive service offering.

****10** 39. Cable modem service is not itself and does not include an offering of telecommunications service to subscribers. We disagree with commenters that urge us to find a telecommunications service inherent in the provision of cable modem service.[FN154] Consistent with the statutory definition of information service, cable modem service provides the capabilities described above "via telecommunications."[FN155] That telecommunications component is not, however, separable from the data-processing capabilities of the service. As provided to the end user the telecommunications is part and parcel of cable modem service and is integral to its other capabilities.[FN156]

40. As stated above, the Act distinguishes "telecommunications" from "telecommunications service." The Commission has previously recognized that "[a]ll information services require the use of telecommunications to connect customers to the computers or other processors that are capable of generating, storing, or manipulating information."[FN157] Although the transmission of information to and from these computers may constitute "telecommunications," that transmission is not necessarily a separate "telecommunications service."[FN158] We are not aware of any cable modem service provider that has made a stand-alone offering of transmission for a fee directly to the public, or to such classes of users as to be effectively available directly to the public.[FN159] Further, as we discuss below, there is no Commission requirement that such an offering be made.

41. In the *Universal Service Report*, the Commission concluded that the Act's "information service" and "telecommunications service" definitions establish mutually exclusive categories of service: ***4824** "when an entity offers transmission incorporating the 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information,' . . . it offers an 'information service' even though it uses telecommunications to do so."[FN160] The report did not decide the statutory classification issue in those cases where an ISP provides an information service over its own transmission facilities. The *Universal Service Report* noted that "[o]ne could argue that in such a case the Internet service provider is furnishing raw transmission capacity to itself."[FN161] In the case of cable modem service, we do not believe that the fact that cable modem service is provided over the cable operator's own facilities, without more, necessarily creates a telecommunications service separate and apart from the cable modem service. The cable operator providing cable modem service over its own facilities, as described in the record, is not offering telecommunications service to the end user, but rather is merely using telecommunications to provide end users with cable modem service.[FN162] Our analysis, like the relevant statutory definitions, focuses instead on the single, integrated information service that the subscriber to cable modem service receives and the nature of the

relationships among cable operators and the entities with which they cooperate to provide cable modem service, which is discussed further below.

****11** 42. *Computer II Requirements*. EarthLink argues that it is irrelevant whether cable operators in fact offer transmission service on a stand-alone basis.[FN163] Instead, EarthLink contends that cable modem service providers must create a stand-alone transmission service and offer it to ISPs and other information service providers on a tariffed basis pursuant to the Commission's *Computer II* requirements.[FN164] EarthLink maintains *Computer II* applies to cable modem service because cable operators offer it on an indiscriminate and standardized basis to the public and because they do so using their own facilities.[FN165] According to EarthLink, "[t]he reality is that information services can only be provided to the public over a common carrier telecommunications facility."[FN166] In support of its arguments, EarthLink points to a line of decisions in which the Commission has required common carriers that provide information services to offer the underlying telecommunications as a stand-alone service.[FN167]

***4825** 43. These decisions are inapposite. In the cases relied upon by EarthLink and others, the providers of the information services in question were traditional wireline common carriers providing telecommunications services (*e.g.*, telephony) separate from their provision of information services.[FN168] *Computer II* required those common carriers also to offer on a stand-alone basis the transport underlying that information service. The Commission has never before applied *Computer II* to information services provided over cable facilities. Indeed, for more than twenty years, *Computer II* obligations have been applied exclusively to traditional wireline services and facilities.[FN169] We decline to extend *Computer II* here. As we have found above, cable modem service providers currently offer subscribers an integrated combination of transmission and the other components of cable modem service.[FN170] EarthLink invites us, in essence, to find a telecommunications service inside every information service, extract it, and make it a stand-alone offering to be regulated under Title II of the Act. Such radical surgery is not required.

44. EarthLink further contends that the fact that some cable operators offer local exchange service as competitive LECs in some markets "using the same cable facilities that are at issue in this proceeding" establishes that these cable operators are common carriers and therefore must abide by the requirements of *Computer II* with respect to their offerings of cable modem service.[FN171] EarthLink asserts that *Computer II* would require any cable operator providing telephone service to unbundle the underlying transmission capacity of its cable modem service and make it available to other information service providers. We disagree. As the Commission recently observed, "the core assumption underlying the *Computer Inquiries* was that the *telephone network* is the primary, if not exclusive, means through which information service providers can gain access to their customers."[FN172] The *Computer II* and *Computer III* proceedings thus subjected AT&T and GTE, and later the Bell Operating Companies, to certain safeguards and conditions, and imposed an un-

bundling obligation on other telephone companies. The Commission recently noted that "the obligations deriving from [the *Computer II* and *Computer III*] proceedings currently apply to the provision of wireline broadband Internet access services by facilities-based telephone companies.[FN173] As noted above, the Commission has applied these obligations only to traditional wireline services and facilities, and has never applied them to information services provided over cable facilities.

****12** 45. Even if *Computer II* were to apply, however, we waive on our own motion the requirements of *Computer II* in situations where the cable operator additionally offers local exchange service. The Commission, on its own motion or on petition, may exercise its discretion to waive such ***4826** requirements on the basis of good cause shown and where the particular facts would make strict compliance inconsistent with the public interest.[FN174] A waiver, therefore, may be appropriate if special circumstances warrant a deviation from the general rule, and if such deviation would better serve the public interest than adherence to the general rule.[FN175]

46. If we were to require cable operators to unbundle cable modem service merely because they also provide cable telephony service, we would in essence create an open access regime for cable Internet service applicable only to some operators. We believe it is more appropriate to examine the issue of open access on a national basis involving all those Title VI cable systems that choose to offer cable modem service, rather than to divide and treat separately those that also have a common carrier local telephony offering.

47. Also, we believe that many, if not most, such cable operators would stop offering telephony if such an offering triggered a multiple ISP access obligation for the cable modem service.[FN176] Because many cable operators would likely withdraw from the telephony market, applying *Computer II* in such circumstances would undermine the long-delayed hope of creating facilities based competition in the telephony marketplace and thereby seriously undermine the goal of the 1996 Act to open all telecommunications markets to competition.[FN177] It would also disserve the goal of Section 706 that we "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing ... measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."[FN178] In light of the above, we believe that if *Computer II* were applicable, strict compliance here would be inconsistent with the public interest. Because we believe that good cause is shown to deviate from the general requirements of *Computer II*, we decline to apply *Computer II* in the manner that EarthLink proposes.[FN179]

***4827** 48. *Cable Operators' Relationships With ISPs - Self-Provisioning and Input Models*. We have concluded above that cable modem service does not include a standalone offering of telecommunications service to subscribers. Significantly, cable modem service as currently provided also does not include an offering of telecom-

munications service to ISPs or other information service providers. As discussed above, cable modem service is provided based on a wide variety of arrangements, some of which involve contractual relationships among cable operators and ISPs or other information service providers.[FN180] Based on the record before us, none of these arrangements appears to involve the offering of telecommunications to ISPs or other information service providers on a common carrier basis.

**13 49. With the exception of AOL Time Warner, most cable operators currently provide only one brand of cable modem service on any system.[FN181] Among these cable operators, two models prevail; we refer to them here as the self-provisioning model and the input model. Some cable operators self-provide all of the functions that comprise the cable modem service offering.[FN182] AT&T, Comcast, and Cox, for example, have self-provided cable modem service on all of their systems since the demise of Excite@Home.[FN183] Others, such as Cablevision, have self-provided the functions of cable modem service since the service was first offered to subscribers.[FN184] In contrast, other cable operators contract with an ISP, which may or may not be affiliated with the cable operator, to provide many of the inputs needed to create the cable modem service offering.[FN185]

50. Many of the large cable operators initially offered cable modem service using inputs provided by Excite@Home and Road Runner.[FN186] AOL Time Warner has used and still uses this type of **4828 input arrangement to provide cable modem service using inputs supplied by its affiliate Road Runner.[FN187] Some small operators also typically use input arrangements, usually in conjunction with unaffiliated ISPs or information service providers.[FN188] ISPs and other information service providers typically supply various types of inputs to cable operators that use this model. Excite@Home and HSA, for example, provided e-mail, caching, web-hosting, and other functions included in cable operators' cable modem service offerings.[FN189] ISPs also have provided cable operators with connectivity between the cable system and the Internet backbone.[FN190] Due to the demise of Excite@Home and HSA, some cable operators have reduced their reliance on input providers for this and other functions. Charter, for example, has recently begun self-provisioning connectivity between its systems and the Internet backbone, while continuing to rely on various input providers to supply functions such as e-mail, web-hosting, and a welcome page.[FN191]

51. None of the foregoing business models by which cable operators provide cable modem service appears to include the offering of any transmission service by a cable operator to an ISP or other information service provider.[FN192] This is necessarily true for cable operators that self-provision all elements of cable modem service and therefore have no arrangements with ISPs. It also appears true for cable operators that provide cable modem service using input arrangements. In both the self-provisioned model and the input model, the cable operator is offering cable modem service to its retail subscribers. Even where an unaffiliated ISP provides most of the information service functions described above, as described in the record, the entity that ultimately provides cable modem service to the sub-

scriber is the cable operator. As described in the record, the cable operator is providing its subscribers with a single service, cable modem service, not with separate transmission, e-mail, and web surfing services.[FN193]

**14 52. *Cable Operators' Relationships With ISPs - Potential Private Carriage Offering*. AOL Time Warner recently has begun offering multiple brands of cable modem service to subscribers on all of its major systems pursuant to the *FTC AOL Time Warner Merger Order*.[FN194] Currently AOL Time Warner **4829** offers cable modem service in conjunction with its affiliated ISPs, AOL and Road Runner, and with unaffiliated ISP EarthLink on all systems in each of its 20 largest divisions.[FN195] Arrangements with other unaffiliated ISPs are in various stages of development.[FN196] AOL Time Warner describes its arrangements with EarthLink and the unaffiliated ISPs as a kind of partnership in which "the [unaffiliated] ISP and the cable operator together offer an integrated Internet service to consumers and both retain a direct interest in providing the service to the consumer."[FN197] AOL Time Warner explains that "both TWC and the ISP retain a direct interest in each customer's account and share in the economics of each customer pursuant to the individually negotiated affiliation agreements."[FN198] According to AOL Time Warner, "both TWC and the ISP take full responsibility for the service customers receive. Thus, customers can call either TWC or the ISP to have their problems addressed."[FN199] Both AOL Time Warner and the ISP have the right to sell the ISP's brand of cable modem service and to set their own prices for the service.[FN200] Regardless of which entity markets and bills for the service, it appears that AOL Time Warner and the ISP are cooperating to provide a retail offering, and both maintain a direct customer relationship with subscribers.

53. AOL Time Warner's arrangement with EarthLink, like those with other unaffiliated ISPs, represents a cooperative arrangement between AOL Time Warner and the ISP, in which the two entities together are providing a service at retail to subscribers.[FN201] Although this arrangement differs in some respects from the input model described above, in that the ISP has the opportunity to establish a direct relationship with the subscriber, it is the same in that subscribers receive a single service, cable modem service, and that neither AOL Time Warner nor any ISP is offering subscribers a separate telecommunications service.[FN202]

54. It is possible, however, that when EarthLink or other unaffiliated ISPs offer service to cable modem subscribers, they receive from AOL Time Warner an "input" that is a stand-alone transmission service, making the ISP an end-user of "telecommunications," as that term is defined in the **4830** Act. The record does not contain sufficient facts by which to make that determination.[FN203] To the extent that AOL Time Warner is providing a stand-alone telecommunications offering to EarthLink or other ISPs, we conclude that the offering would be a private carrier service and not a common carrier service, because the record indicates that AOL Time Warner determines on an individual basis whether to deal with particular ISPs and on what terms to do so.[FN204]

****15** 55. The Commission and courts have long distinguished between common carriage[FN205] and private carriage by examining the particular service at issue.[FN206] As the D.C. Circuit has stated, "the primary *sine qua non* of common carrier status is a quasi-public character, which arises out of the undertaking to carry for all people indifferently."[FN207] In contract, an entity is a private carrier for a particular service when a carrier "chooses its clients on an individual basis and determines in each particular case 'whether and on what terms to serve' and there is no specific regulatory compulsion to serve all indifferently."[FN208] The record indicates that AOL Time Warner is determining on an individual basis whether to deal with particular ISPs and is in each case deciding the terms on which it will deal with any particular ISP.[FN209] To the extent that AOL Time Warner is making an offering of pure telecommunications to ISPs, it is dealing with each ISP on an individualized basis and is not offering any transmission service indiscriminately to all ISPs.[FN210] Thus, such an offering would be a private carrier ***4831** service, not a "telecommunications service." Similarly, to the extent that other cable providers elect to provide pure telecommunications to selected clients with whom they deal on an individualized basis, we would expect their offerings to be private carrier service.

56. *AT&T v. City of Portland*. We recognize that the United States Court of Appeals for the Ninth Circuit considered issues related to the classification of cable modem service in *AT&T v. City of Portland*.[FN211] While we are considering the broad issue of the appropriate national framework for the regulation of cable modem service, the *Portland* court considered a much narrower issue -- whether a local franchising authority, whose authority was limited to cable service, had the authority to condition its approval of a cable operator's merger on the operator's grant of multiple ISP access.[FN212] In that case, the court held that the cable modem service at issue, @Home, was not a "cable service."[FN213] The court further concluded that:

> @Home consists of two elements: .... To the extent @Home is a conventional ISP, its activities are that of an information service. However, to the extent that @Home provides its subscribers Internet transmission over its cable broadband facility, it is providing a telecommunications service as defined in the Communications Act.[FN214]

57. The Ninth Circuit's decision was based on a record that was less than comprehensive. The parties proceeded on the assumption that the cable modem service at issue was a cable service and therefore did not brief the regulatory classification issue.[FN215] Notably, the Commission, filing as *amicus curiae*, was not a party to the case and did not provide its expert opinion on this issue.[FN216] In contrast, the record in this proceeding, developed over the course of a year through written comments and replies and meetings with interested parties, has fully addressed the classification issue and explored the characteristics of cable modem service as it is now provided.

****16** 58. The Ninth Circuit could have resolved the narrow question before it by

finding that cable modem service is not a cable service. Nevertheless, in the passage quoted above the court concluded that because there is a "telecommunications" component involved in providing cable modem service, a separate "telecommunications service" is also being offered within the meaning of section 3(46) of the ***4832** Act.[FN217] As discussed in paragraph 40 above, however, under the Act telecommunications is distinct from telecommunications service. Though by definition an information service includes a telecommunications component, the mere existence of such a component, without more, does not indicate that there is a separate offering of a telecommunications service to the subscriber.[FN218] The Ninth Circuit did not have the benefit of briefing by the parties or the Commission on this issue and the developing law in this area.[FN219]

59. *Commission Authority*. Having concluded that cable modem service is an information service, we clarify that it is an interstate information service. The Commission has found that "traffic bound for information service providers (including Internet access traffic) often has an interstate component."[FN220] The Commission concluded that although such traffic is both interstate and intrastate in nature, it "is properly classified as interstate and it falls under the Commission's ... jurisdiction."[FN221] The jurisdictional analysis rests on an end-to-end analysis, in this case on an examination of the location of the points among which cable modem service communications travel. These points are often in different states and countries.[FN222] Accordingly, cable modem service is an interstate information service.[FN223]

***4833 C. "Cable Service" Classification**

60. We find that cable modem service is not a "cable service" under the definition prescribed by the Act.[FN224] Section 602 of the Act defines "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 or use of such video programming or other programming service."[FN225] The Act further defines "video programming" as "programming provided by, or generally considered comparable to programming provided by, a television broadcast station."[FN226] "Other programming service" is defined as "information that a cable operator makes available to all subscribers generally."[FN227] The Act states that a "cable operator" provides cable service over a "cable system" it owns or manages.[FN228] Commenters debating whether the cable service definition applies to cable modem service focus their arguments primarily on what is meant by the terms "one-way transmission" and "other programming service" that were part of the definition as originally enacted in 1984 and the term "or use" added in 1996. We will analyze key phrases in the statutory definition.

****17** 61. *One-Way Transmission to Subscribers*. The phrase "one-way transmission to subscribers" in the definition reflects the traditional view of cable as primarily a medium of mass communication, with the same package or packages of video programming transmitted from the cable operator and available to all

[FN229] When the definition was enacted in 1984, cable systems designed for the traditional one-way delivery of programming were developing the capability to provide "'two-way' services, such as the transmission of voice and data traffic, and transactional services such as at-home shopping and banking."[FN230] The legislative history indicates that Congress intended the cable service definition "to mark the boundary between those services provided over a cable system which would be exempted from common carrier regulation under section 621(c) and all other communications services that could be provided over a cable system."[FN231] Thus, the definition reflected the traditional view that the one-way delivery of television programs, movies, and sporting events is not a traditional common carrier activity ***4834** and should not be regulated as such.[FN232]

62. The Commission has previously interpreted the term "transmission" in the cable services definition "as requiring active participation in the selection and distribution of video programming," an interpretation that the D.C. Circuit has upheld.[FN233] In the *Video Dialtone* proceeding, the Commission found that control over video content distinguished cable service from video dialtone service, the provision of a transparent video conduit to be used for delivering the programming of others.[FN234] Because the "one way transmission requirement" applies to all content in the cable services definition, operator control over the selection of content offered to subscribers is a characteristic of both video programming and other programming service provided as a cable service. We recognize, as AT&T and the National League of Cities point out, that some operators or their affiliated ISPs may themselves produce or obtain the rights to content accessible through their web sites,[FN235] but cable operators do not control the majority of information accessible by cable modem subscribers, as discussed further below.

63. *Other Programming Service*. The statutory definition specifies that cable service includes two types of content. One is the video programming historically transmitted by cable operators to subscribers, which is not provided today through cable modem service,[FN236] as commenters generally ***4835** agree.[FN237] The other is the category of "other programming service," which the Act defines as "information that a cable operator makes available to all subscribers generally."[FN238] The 1984 legislative history describes "other programming service" as "non-video information" having the characteristics of traditional video programming.[FN239] "Other programming service" does not include information that is subscriber specific.[FN240]

****18** 64. *Subscriber Interaction*. While "cable service" is defined as the "one-way transmission" of video programming or other programming services, the definition specifically contemplates some subscriber interaction. The definition enacted in 1984 provided for "subscriber interaction, if any, which is required for the selection" of content, so that cable service includes subscribers' ability to select video programming and information provided in other non-video programming services.[FN241] The legislative history states that Congress intended "simple menu-selection" or searches of pre-sorted information from an index of keywords that

would not activate a sorting program and "would not produce a subset of data individually tailored to the subscriber's request" to be cable services. On the other hand, offering the capacity to engage in transactions or off-premises data processing,[FN242] including unlimited keyword searches or the capacity to communicate instructions or commands to software programs stored in facilities off the subscribers' premises,[FN243] would not be.[FN244] Thus, operators offering video programming or non-video information could also offer subscribers the on-line capability to choose the content of interest to them, but not to manipulate, customize or interact with the information on-line.[FN245] As the Commission has held, services offering a high degree of interactivity, such as offering subscribers the capability for tailoring a video image to a subscriber's specific requests, would fall outside the scope of video ***4836** programming under the definition of "cable service" enacted in 1984.[FN246]

65. "*Or Use*." The 1996 Telecommunications Act ("1996 Act") added the words "or use" to the cable service definition, so that a cable service may now include "subscriber interaction, if any, which is required for the selection *or use*" of cable services.[FN247] We disagree with those cable operator and franchising authority commenters who argue that this amendment brings cable modem service within the definition of cable service.[FN248] The amendment itself addresses only the use of content otherwise qualifying as cable service. As the D.C. Circuit has pointed out, the subsection of the definition permitting subscriber interaction is qualified by the term "if any," implying that "subscriber interaction ... is not a necessary component of cable service."[FN249] Cable service continues to be defined as "the one-way transmission to subscribers," and both video programming and other programming services remain subject to this limitation.[FN250] The definition of "other programming service" continues to be "information that a cable operator makes available to all subscribers generally."[FN251]

66. The legislative history relied on by commenters who favor an expansive reading of the amendment does not require the result they advocate. The Joint Explanatory Statement for the 1996 Act states: "The conferees intend the amendment to reflect the evolution of cable to include interactive services such as game channels and information services made available to subscribers by the cable operator, as well as enhanced services."[FN252] This statement supports an intent to permit interactivity associated with both video and other programming services provided by cable operators to subscribers. If Congress intended by the language in the Joint Explanatory Statement to broaden the meaning of cable services to include stand-alone "information services" as defined in the 1996 Act or "enhanced services" as that term has traditionally been defined, the language of the statute itself does not reflect this intent.

****19** 67. In light of the statutory language itself and the ambiguities in the legislative history, we find that the addition of the term "or use" to the definition of cable service does not bring cable modem service within the definition of cable service. Rather, we believe that the one-way transmission requirement in

that definition continues to require that the cable operator be in control of selecting and distributing content to subscribers and that the content be available to all subscribers generally. Based on ***4837** the record before us, we find that cable modem service does not have the characteristics required for a cable service. The record shows cable modem service to be a service built around Internet access, which, among other things, allows subscribers to define searches for information throughout the World Wide Web, query web sites for information, engage in transactions, receive individually tailored responses to their requests, generate their own information, and exchange e-mail.[FN253] That the cable operator makes subscriber access to the Internet possible does not establish the operator's control over the selection of the information made available to subscribers via the Internet.[FN254] Facilitating subscriber use of the Internet by giving subscribers access to the Internet's TCP/IP protocols,[FN255] making commercial arrangements for connections to the Internet backbone network,[FN256] providing links to search engines on the home page, providing home page links to web sites that can be searched,[FN257] or caching frequently requested information to enhance the high-speed performance of the network,[FN258] does not put the Internet experience offered through the cable modem service in either the video programming or other programming service categories of cable service. These capabilities may make the subscriber's Internet experience easier, faster, and more convenient, but the ultimate control of the experience lies with the subscriber.[FN259] As EarthLink comments, the majority of the information accessed over the Internet is chosen individually by the Internet user without the involvement of the cable operator or a third party with which it contracts in the creation or selection of the content.[FN260] Furthermore, much of the information received by the subscriber is tailored to that subscriber's interests.

68. Including proprietary information or packages of pre-selected web site links in the service ***4838** does not change the classification.[FN261] Even if discrete parts of cable modem service have characteristics of cable service, that does not require classification of the service as a cable service when it is predominantly Internet access.[FN262] NCTA points to language in the 1984 House Report stating that the regulatory classification of separate cable services and non-cable services is not affected by the packaging or marketing of such services together.[FN263] NCTA argues from this that the bundling of non-cable services with cable services does not contaminate the cable service or transform it into a non-cable service. The House Report language does not persuade us that the integrated cable modem service should be classified as a cable service. The House Report reflects congressional intent in 1984, expressed again in the Joint Explanatory Statement accompanying the 1996 Act,[FN264] that existing regulatory authority over non-communications services was not to be affected by Title VI, and it is consistent with the Commission's treatment of bundled offerings of separate telecommunications services with non-telecommunications services. Our determination that cable modem service is not a cable service does not mean that the cable operator cannot provide the service, just that the service is not subject to Title VI.

****20** 69. *Internet Tax Freedom Act*. We also are not persuaded by arguments that the Internet Tax Freedom Act, enacted more than two years after the amendment at issue, demonstrates any congressional intent regarding the regulatory classification of cable modem service.[FN265] That statute provides for a moratorium on "taxes on Internet access, unless such tax was generally imposed and actually enforced prior to October 1, 1998."[FN266] The statute defines "tax" as "(i) any charge imposed by any governmental entity for the purpose of generating revenues for governmental purposes, and is not a fee imposed for a specific privilege, service, or benefit conferred; or (ii) the imposition on a seller of an obligation to collect and to remit to a governmental entity any sales or use tax imposed on a buyer by a governmental entity."[FN267] It specifically exempts franchise fees for cable services from the definition of taxes.[FN268] Los Angeles and the National League of Cities argue that this exemption would not be necessary unless Congress believed cable modem service to be a "cable service."[FN269] However, "the views of a subsequent Congress form a hazardous basis for inferring the intent of an earlier one,"[FN270] and as the National League of Cities acknowledges, may not be dispositive.[FN271] Nothing in the Internet Tax Freedom Act shows any ***4839** congressional intent to address or amend the statutory definition of " cable service" in the Communications Act. The exemption simply makes clear that franchise fee obligations for cable services are not affected by the moratorium.

**D. Other Statutory Classifications**

70. A few commenters advocate other statutory classifications for cable modem service, such as "advanced telecommunications capability" as defined in section 706 of the 1996 Telecommunications Act.[FN272] Most cable modem service fits within our definition of advanced telecommunications capability because it affords the user the ability to send and receive information at speeds higher than 200 kbps.[FN273] Section 706 does not, however, impose particular obligations on providers of such capability. Accordingly, we need not consider cable modem service's status as advanced telecommunications capability in resolving the issue of statutory classification. Consistent with section 706, however, in the following Section, we seek comment on what regulatory framework will promote the deployment of cable modem service, as well as other forms of advanced telecommunications capability, to all Americans in a reasonable and timely fashion.[FN274]

71. Some commenters suggest that we create a category of service that would be within our general authority over "interstate and foreign commerce in communication by wire and radio."[FN275] Because we have found that cable modem service fits within the statutory definition of an information service, we need not consider whether we have the authority to create a new category of service.

**IV. NOTICE OF PROPOSED RULEMAKING**

**A. Background**

****21** 72. Having determined that cable modem service is an interstate information service, we now address the regulatory implications of our determination. We note

that the record in the Notice contains extensive comments on the Commission's authority to regulate cable modem service, as well as the costs and benefits of imposing a multiple ISP requirement on cable operators. Nonetheless, we initiate a rulemaking proceeding to examine these issues in light of the Commission's recent initiation of the *Wireline Broadband NPRM*.[FN276] We also seek to further examine the scope of the Commission's jurisdiction to regulate cable modem service, including whether there are any Constitutional limitations on the exercise of that jurisdiction. Next, in light of marketplace developments, we consider whether it is necessary or appropriate at this time to require that cable operators provide unaffiliated ISPs with the right to access cable modem service customers directly (what we refer to hereafter as "multiple ISP access"). We also seek comment on the role of state and local franchising authorities in regulating cable modem service. Finally, we note the relationship between our classification decision and statutory or regulatory provisions concerning pole attachments, universal service, and the protection of subscriber privacy.

***4840** 73. In considering whether regulation of cable modem service is appropriate, we are guided by the principles set forth above.[FN277] First and foremost, we are guided by our statutory mandates to "encourage the ubiquitous availability of broadband to all Americans."[FN278] Section 706 of the 1996 Act charges the Commission with "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" by "regulatory forbearance, measures that promote competition or other regulating methods that remove barriers to infrastructure investment."[FN279] Moreover, consistent with section 230(b)(2) of the Act, we seek "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[FN280] Second, we are mindful of the need to minimize both regulation of broadband services and regulatory uncertainty in order to promote investment and innovation in a competitive market.[FN281] Third, we seek to encourage facilities-based broadband competition. By promoting development and deployment of multiple platforms, we will best ensure that public demands and needs for broadband services can be met. Fourth, we strive to develop an analytical approach that is, to the extent possible, consistent across multiple platforms.

74. *Different Models of Multiple ISP Access*. The Notice in this docket sought comment on three possible models pursuant to which a cable operator could be required to provide multiple ISP access.[FN282] Some commenters addressed one or more of these models.[FN283] Other commenters proposed different models for mandating multiple ISP access. While some proposed to rely primarily on private negotiation among cable operators and ISPs,[FN284] others proposed regulation comparable to that imposed on incumbent LECs' DSL service[FN285] or to cable operators' leased access obligations.[FN286] Others advocated regulation of the cable operator's facilities comparable to regulation of the unbundled network elements of incumbent LECs pursuant to section 251(c)(3).[FN287] Another form of multiple ISP access is

provided ***4841** consistent with the FTC AOL Time Warner Merger Order.[FN288] Therefore, we ask that parties, in their comments, specify whether they are addressing any form of multiple ISP access in particular or all the forms that have been proposed. Commenters should also consider whether any access requirement should specifically limit ISP access to uses related to the offering of cable modem service, or should explicitly permit other uses by ISPs.

**B. Commission Authority**

****22** 75. Federal courts have long recognized the Commission's authority to promulgate regulations to effectuate the goals and accompanying provisions of the Act in the absence of explicit regulatory authority, if the regulations are reasonably ancillary to existing Commission statutory authority.[FN289] This authority stems from several provisions of the Communications Act. Section 1 of the Act charges the Commission with "execut[ing] and enforc[ing] the provisions of this Act,"[FN290] provisions which extend "to all interstate and foreign communication by wire or radio ... and ... all persons engaged within the United States in such communication."[FN291] Moreover, section 4(i) provides that "[t]he Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with the Act, as may be necessary in the execution of its functions."[FN292] The Commission's authority pursuant to Title I, however, is not "unrestrained" and may only be exercised provided such action is "necessary to ensure the achievement of the Commission's statutory responsibilities."[FN293]

76. The Commission asserted ancillary jurisdiction over information services (then called "enhanced services") in the Computer Inquiries.[FN294] Since then, it has only exercised that authority in limited instances.[FN295] Private interstate communications services likewise fall within the Commission's ***4842** subject matter jurisdiction.[FN296]

77. In the *Wireline Broadband NPRM*, the Commission tentatively concluded that wireline broadband Internet access service is an interstate information service.[FN297] Consistent with this tentative conclusion, we requested comment on the extent to which we should exercise our Title I ancillary jurisdiction to regulate the provision of wireline broadband Internet access service by incumbent local exchange carriers. Given our classification above of cable modem service as an interstate information service, we now seek comment on whether the Commission should exercise its Title I authority here with regard to the provision of cable modem service.

78. We note that in both proceedings, we are requesting comment on the extent to which we should exercise Title I authority to regulate the facilities-based provision of interstate information services. We seek comment regarding how our findings and decisions in one proceeding should impact the other. We also request comment on whether there are legal or policy reasons why we should reach different conclusions with respect to wireline broadband Internet access service and cable modem service. Should any decision to exercise Title I jurisdiction over either

service be influenced by the cable operators' current status as the leading providers of residential broadband services?

79. We seek comment on any explicit statutory provisions, including expressions of congressional goals, that would be furthered by the Commission's exercise of ancillary jurisdiction over cable modem service. One possibility is the Commission's basic purpose "to make available, so far as possible, to all the people of the United States ... a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."[FN298] Other statutory grounds might include the goals stated in section 230(b) of the Act,[FN299] the Title VI goal of assuring "that cable communications provide and are encouraged to provide the widest possible diversity of information sources and services to the public,"[FN300] and section 706 of the 1996 Act.[FN301] We request comment on the use of these or other statutory provisions as the basis for our exercise of Title I jurisdiction. We also request comment on whether our reliance on our ancillary jurisdiction in support of these or other provisions would be analogous to our reliance on ancillary jurisdiction in adoption of the *Computer Inquiry* rules. In addition, given the relationship of cable modem service (including the underlying transmission component) to services provided by wireline common carriers, we seek comment on whether there are any additional bases for asserting ancillary jurisdiction.

****23 *4843** 80. *The First Amendment*. Many commenters have debated whether a federally-mandated system of multiple ISP access would violate the First Amendment rights of cable operators.[FN302] We seek comment on this issue and, in particular, on the level of First Amendment scrutiny that would apply to a federal multiple ISP access requirement. Because the record already contains comment on First Amendment Constitutional issues potentially raised by multiple ISP access, we ask commenters to update the record. For example, has recent case law[FN303] or Commission precedent[FN304] altered or clarified the First Amendment analysis that would be applicable to multiple ISP access? Have marketplace conditions in the residential high-speed Internet access business changed since the close of the pleading cycle in ways that alter the First Amendment analysis? Have trials and limited commercial offerings of different kinds of multiple ISP access shown that certain types of access place a minimal burden on the cable operators while achieving the maximum choice for subscribers?

81. *The Fifth Amendment*. Several commenters argue that multiple ISP access would constitute a "per se" or "regulatory" taking of the cable operator's property without just compensation under the Takings Clause of the Fifth Amendment to the U.S. Constitution.[FN305] We seek comment on this issue. If a form of multiple ISP access did entail a taking, what would be "just compensation" for it? Would ensuring just compensation necessarily involve regulators in setting the price that a cable operator charges unaffiliated ISPs (or vice versa)? Or could just compensation be ensured by some market-based process of negotiations? Do recent technological developments, technical trials, and limited commercial offerings of multiple

ISP access indicate that some forms of multiple ISP access minimize occupation of the cable operator's property and economic harm to it? We request comment on these issues.

82. *Other Constitutional Issues*. We seek comment on whether there are additional constitutional concerns related to multiple ISP access requirements.

**C. Marketplace Developments**

83. Since we issued the Notice, the cable modem service marketplace has changed significantly. As discussed above, the cable modem service business is still nascent, and the shape of ***4844** broadband deployment is not yet clear. Business relationships among cable operators and their service offerings are evolving.[FN306] Until recently, some cable operators had exclusive contracts with one affiliated ISP. Now, AOL Time Warner, Comcast and AT&T have each reached agreements that allow certain ISPs access to the cable operator's system. As described in detail above,[FN307] in accordance with conditions imposed on the AOL Time Warner merger by the FTC, AOL Time Warner already is offering ISP choice to its subscribers.[FN308] Comcast recently announced that an unaffiliated company, United Online, and its NetZero and Juno Internet services would be available as part of Comcast's cable modem service.[FN309] Comcast also appears to have reached a conditional agreement with Microsoft to provide MSN ISP service on non-discriminatory terms.[FN310] AT&T has announced that it plans to deploy multiple-ISP service commercially in several major markets by mid-2002 and that EarthLink will be included in its cable modem service in certain cities.[FN311] Finally, Cox is conducting technical trials of multiple ISP access.[FN312]

****24** 84. We ask that commenters refresh the record on these points, and we intend to monitor the industry closely. We seek comment in particular on whether the commercial relationships and trials discussed above demonstrate that the market will provide consumers a choice of ISPs without government intervention, or whether the absence of widespread business arrangements raises a level of concern sufficient to warrant Commission action. If parties believe that Commission intervention is necessary, we ask that they describe in detail what sort of regulations we should impose. We also request comment regarding whether any decision we make about multiple access requirements for cable systems in this proceeding should apply to Open Video Systems.[FN313]

85. In considering multiple ISP access requirements, we will seek to promote the goals set forth in paragraphs 4-6 above. We seek comment regarding whether, in current and likely future market conditions, any form of multiple ISP access is needed to promote those goals. For example, would a multiple ISP access mandate promote deployment of advanced telecommunications capability; spur investment in facilities to provide high-speed Internet access service and innovation among service providers, ISPs, and creators of content; and/or facilitate intramodal or intermodal competition?[FN314] Or would it have the opposite effects? Moreover, we seek comment on whether the Commission's decisionmaking should be guided by prin-

ciples which embrace intramodal competition. If so, we seek comment on whether the market can or will satisfy these principles or whether some form of multiple ISP access regime for cable systems is needed to do so. To what extent should our decision regarding multiple ISP access requirements be influenced by the desirability of 'regulatory parity,' namely the presence or absence of multiple ISP access regimes for other technologies (such as wireline, terrestrial wireless, and ***4845** satellite) that offer residential high-speed Internet access service?[FN315] To what extent should that decision be impacted by cable operators' current status as the leading providers of residential broadband services?

86. *Consumer Demand*. If there is a demand for access to several ISPs, is that demand being met today? Specifically, does "click through" access to any ISP and content on the World Wide Web produce the same, or almost the same, value that a regulatory system of multiple ISP access would produce? Is any cable operator or ISP denying, or likely to deny, click through access?

87. We note that we are unaware of any allegation that a cable operator has denied "click through" access to other ISPs Moreover, although it is technically feasible for a cable operator to deny access to unaffiliated content, or to relegate unaffiliated content to the "slow lane" of its residential high-speed Internet access service, we are unaware of a single allegation that a cable operator has done so.[FN316] Is the threat that subscriber access to Internet content or services could be blocked or impaired, as compared to content or services provided by the cable operator or its affiliate, sufficient to justify regulatory intervention at this time?

****25** 88. *Cost/Benefit Analysis*. We request comment on the costs that a multiple ISP access mandate would impose on cable operators and on the benefits that a mandate would bring to consumers. Would some forms of multiple ISP access be less costly to cable operators[FN317] and more beneficial to consumers than others? Is the cost/benefit calculation for multiple ISP access different for small cable operators than it is for others? Would the requirements imposed on telecommunications carriers by our Second or Third Computer Inquiries[FN318] provide a useful model for a multiple ISP access regime? Would the new forms of multiple ISP access that are being deployed or are under consideration by cable operators, such as the model being implemented by AOL Time Warner pursuant to the FTC AOL Time Warner Merger Order,[FN319] provide useful models? Other possible means of effecting a multiple ISP access regime include adopting a general rule of reasonableness for cable operators in their dealings with ISPs seeking access to their cable systems and/or requiring cable operators to make high-speed transmission available to other ISPs at "market-based prices."[FN320] We could then rely on our complaint processes to resolve individual disputes about these standards. Would such a system of general principles and case-by-case adjudication achieve our goals in a timely and cost-effective manner?

***4846** 89. What lessons, if any, do trials and current commercial offerings of mul-

tiple ISP access[FN321] reveal about the costs and benefits of multiple ISP access and how such costs and benefits can be balanced? Has recent experience with the addition of source-based routers, described in paragraph 15 above, showed that technology to be an efficient form of multiple ISP access?

90. What would be the costs of regulatory enforcement of a multiple ISP access mandate? Would a multiple ISP access mandate lead to significant opportunities for regulatory arbitrage -- businesses making decisions based on regulatory classifications rather than on customers' preferences and innovative and sustainable business plans? Would a multiple ISP access mandate impose long term costs on the market? In light of the new and fast-changing nature of the residential high-speed Internet access business, would a multiple ISP access requirement, imposed at this time, hinder the development of a market that is still evolving?[FN322] In particular, might a requirement preclude the discovery of network design, content, applications, and business models that would otherwise enjoy widespread adoption and enhance long-term consumer welfare?[FN323] Is there a way to implement multiple ISP access now that would avoid any such harmful interference in the future and that would achieve the goals we set forth in paragraphs 4-6 above? If we adopt a multiple ISP access mandate for cable systems generally, should we exempt small cable systems from such a mandate because of the particular conditions that they face?

****26** 91. We recognize that much comment has already been provided regarding these issues, in this proceeding and others. Accordingly, we are particularly interested in comments that provide updated information and discuss relevant regulatory and judicial decisions issued since the comment period closed in this proceeding. We are likely to find particularly relevant and persuasive empirically supported studies that use well-established methods for quantifying benefits and harms, as well as comments based on well-established economic theory.

92. *Changing Market Conditions*. If we ultimately conclude not to impose multiple ISP access at this time, what, if any, future events should lead us to do so? Are there market conditions that are not currently pervasive but, should they become pervasive, would suggest the need for a multiple ISP access mandate in the future?[FN324] Would these conditions include the acquisition of market power by cable operators in providing residential high-speed Internet access, cable operators' refusals to satisfy subscriber demand for multiple ISP access, or the evolution of a mature market for residential high-speed Internet access? Would a finding that subscriber access to Internet content or services may be blocked or impaired, as compared to other content or services, particularly that provided by the cable operator or its affiliate, support regulatory intervention? We seek comment on other conditions that would suggest regulation is needed and on objective, readily measurable criteria by which we could detect the occurrence of such conditions. Is ongoing monitoring appropriate to ensure that any relevant conditions are detected accurately and in a timely manner and, if so, what type of monitoring?

93. We also seek comment on indicia that a cable operator is offering a "telecommunications ***4847** service"[FN325] or private carrier service, on a stand-alone basis, to ISPs or subscribers. Such an offering might provide the Commission with grounds, respectively, for common carriage regulation or exercise of its ancillary authority. How might we detect that a cable operator is, in fact, making such an offering? If and when a cable operator makes such an offering, what, if any, access requirements should the Commission impose on it? For example, if we found that a cable operator were making such an offering, would that trigger the requirements of *Computer II and III* with respect to the retail offering of cable modem service to subscribers or make their application in the public interest?[FN326] To what extent should these decisions impact, or be impacted by, the conclusions we make in our *Wireline Broadband NPRM* proceeding? We note that providers of individually negotiated private carriage may begin to make standard offerings of transmission service to the general public, so that the service becomes a telecommunications service within the meaning of the Act. We seek comment on the appropriate scope of regulation of any such offerings. We also seek comment on whether it would be appropriate to forbear from particular Title II obligations in these circumstances.[FN327]

****27** 94. *Forbearance from Telecommunications Service Obligations*. As noted above, the U.S. District Court for the Southern District of California has expressed its view that it is bound by the Ninth Circuit's *Portland* decision with regard to the classification of cable modem service.[FN328] The court noted, however, that the Ninth Circuit left open the question whether the Commission would exercise its forbearance authority to remove any telecommunications service regulations from the provision of cable modem service. Further, the district court stayed its proceedings "pending the resolution of the FCC's NOI proceeding" to determine whether the Commission will forbear in this circumstance.[FN329] We note that the NOI remains open, and we address the issue of forbearance here.

95. To the extent that cable modem service may be subject to telecommunications service classification, we seek comment on whether we should forbear from applying each provision of Title II or common carrier regulation.[FN330] We invite comment on whether enforcement of such provisions is not necessary to ensure that the charges, practices, classification or regulations in connection with cable modem service are just and reasonable and not unjustly or unreasonably discriminatory. Is enforcement not necessary for the protection of consumers? Would forbearance be consistent with the public interest? We tentatively conclude that such forbearance would be justified. As an initial matter, we note our determination that cable modem service, as described in the record, is appropriately classified as an information service and does not contain a distinct telecommunications service.[FN331] The Commission has a long history of classifying information services as Title I services and thus not subject to the obligations and requirements imposed on services subject to Title II.[FN332] Given that cable modem service will be treated as an information service in most of the country, we tentatively conclude that the

public interest would be served by the uniform national policy that would result from the exercise of forbearance to the extent cable modem service is classified as a telecommunications service. We also believe that forbearance would be in the public interest because cable modem service is still in its early stages; supply and demand are still evolving; and several rival networks providing residential high-speed Internet access ***4848** are still developing. For these same reasons we tentatively conclude that enforcement of Title II provisions and common carrier regulation is not necessary for the protection of consumers or to ensure that rates are just and reasonable and not unjustly or unreasonably discriminatory. As such, we believe that forbearance from the requirements of Title II and common carrier regulation is appropriate in this circumstance. We request comment on this analysis. Again, we request that commenters focus on how such forbearance and/or regulation would further the Commission's goals, stated in paragraphs 4-6 above.

**D. Consequences Of Legal Classification As Information Service**

**1. State and Local Regulation of Cable Modem Service and Rights-Of-Way.**

****28** 96. As discussed above, cable modem service is an interstate information service within the scope of our jurisdiction over interstate and foreign communications.[FN333] We recognize, however, that it is provided over the facilities of cable systems that occupy public rights-of-way in local communities. In order to facilitate our national policy goals, we seek to clarify the authority of State and local governments with respect to cable modem service.

97. By addressing the classification issues in the accompanying Declaratory Ruling, we seek to remove regulatory uncertainty that may discourage investment and innovation in broadband services and facilities. In this part of the Notice of Proposed Rulemaking, we address potential areas of regulatory uncertainty at the State and local levels that could also discourage such investment and innovation. We would be concerned if a patchwork of State and local regulations beyond matters of purely local concern resulted in inconsistent requirements affecting cable modem service, the technical design of the cable modem service facilities, or business arrangements that discouraged cable modem service deployment across political boundaries. We also would be concerned if State and local regulations limited the Commission's ability to achieve its national broadband policy goals to “promote the deployment of advanced telecommunications capability to all Americans in a reasonable and timely manner,” “to promote the continued development of the Internet and other interactive computer services and other interactive media” and “to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”[FN334]

98. Accordingly, we seek comment regarding whether we should interpret the Commission's assertion of jurisdiction under the Communications Act to preclude State and local authorities from regulating cable modem service and facilities in particular ways.[FN335] We note that the courts have recognized the Commission's au-

thority under Title I to preempt non-Federal regulations that negate the Commission's goals, including regulations affecting enhanced services.[FN336] We seek comment as to any additional basis for preempting such regulations. For example, does section 624(b) provide preemptive authority? Section 624(b) states that a franchising authority "may not ... establish requirements for ... other information services."[FN337]

99. Below we address three specific types of local requirements that may be affected by our ***4849** determination that cable modem service is an interstate information service: access requirements, franchise requirements, and franchise fees. However, we also request comment on any other forms of State and local regulation that would limit the Commission's ability to achieve its national broadband policy, discourage investment in advanced communications facilities, or create an unpredictable regulatory environment. Specifically, we seek comment as to whether we should use our preemption authority to preempt specific state laws or local regulations. We ask commenters to specify what preemption authority we would rely on in each case.

****29** 100. *Access Requirements*. For the most part, States and localities that have considered imposing access requirements have done so in the context of their Title VI authority to review cable franchise transfers.[FN338] In light of our conclusion that cable modem service is an interstate information service, we seek comment on any regulatory authority that State and local governments may have with respect to cable modem service as an information service, including any authority to impose multiple ISP access requirements or to prohibit, limit, restrict, or condition the provision of cable modem service. Is such regulation consistent with any exercise of our jurisdiction over cable modem service under Title I, including any affirmative decision we might make to refrain from imposing specific regulatory requirements?

101. *Rights-of-Way and Franchising Issues*. The Commission has long recognized the important responsibility of local and State governments to manage rights-of-way.[FN339] Indeed, Congress in 1984 sought to "establish franchise procedures and standards which encourage growth and development of cable systems and which assure that cable systems are responsive to the needs and interests of the local community," and to "establish guidelines for the exercise of Federal, State, and local authority with respect to the regulation of cable systems."[FN340]

102. We request comment on how our classification of cable modem service as an interstate information service impacts rights-of-way and franchising issues. We note that section 621 authorizes local franchising authorities to require cable operators to obtain a franchise to construct a cable system ***4850** over public rights-of-way.[FN341] Once a cable operator has obtained a franchise for such a system, our information service classification should not affect the right of cable operators to access rights-of-way as necessary to provide cable modem service or to use their previously franchised systems to provide cable modem service. We seek

comment on this tentative conclusion. We also seek comment on whether providing additional services over upgraded cable facilities imposes additional burdens on the public rights-of-way such that the existing franchise process is inadequate. If so, does Title VI nevertheless preclude local franchising authorities from imposing additional requirements on cable modem service? We note that section 624(b) provides that, in a request for proposals for a franchise or franchise renewal, a franchising authority "may not ... establish requirements for video programming or other information services."[FN342] Furthermore, section 624(a) provides that "[a]ny franchising authority may not regulate the services, facilities, and equipment provided by a cable operator except to the extent consistent with this title."[FN343] Based on the foregoing, we tentatively conclude that Title VI does not provide a basis for a local franchising authority to impose an additional franchise on a cable operator that provides cable modem service.

****30** 103. We also seek comment generally on the scope of local franchising authority over facilities-based providers of information services. Do State statutes and constitutional provisions authorizing local franchising in terms of utility services generally, or cable and telecommunications networks and services specifically, authorize localities to franchise providers of information service under existing law? If so, is there any basis for treating facilities-based providers of information services differently based on the facilities used?

104. As the Commission has previously stated, we believe that "administration of the public rights-of-way should not be used to undermine efforts of either cable or telecommunications providers to upgrade or build new facilities to provide a broad array of new communications services."[FN344] We expect that State and local governments share this view and will work to facilitate the deployment of broadband services in their communities. The Commission has previously expressed concern about unnecessary regulation at the local level that extends far beyond local government interests in managing the public rights-of-way,[FN345] and about the discriminatory application of regulation at the State and local levels.[FN346] We are concerned that State or local regulation beyond that necessary to manage rights-of-way could impede competition and impose unnecessary delays and costs on the development of new broadband services. Some commenters have raised questions about potential State and local actions that could restrict entry, impose access or other requirements on cable modem service, or assess fees or taxes on cable Internet service.[FN347] We seek comment on these issues.

105. Franchising authorities have expressed concern that their rights to collect franchise fees ***4851** on cable modem service for the use of public rights-of-way would be affected if we were to find that cable modem service is not a cable service.[FN348] We note that section 622(b) provides that "the franchise fees paid by a cable operator with respect to any cable system shall not exceed 5 percent of such cable operator's gross revenues derived ... from the operation of the cable system to provide cable services."[FN349] Given that we have found cable modem service to be an information service, revenue from cable modem service would not

be included in the calculation of gross revenues from which the franchise fee ceiling is determined. Furthermore, we tentatively conclude that Title VI does not provide an independent basis of authority for assessing franchise fees on cable modem service. We seek comment on this issue. We also note Congress' concern regarding new taxes on Internet access imposed for the purpose of generating revenues when no specific privilege, service, or benefit is conferred and its concern regarding multiple or discriminatory taxes on electronic commerce.[FN350]

106. *Franchise Fees Previously Paid Pursuant to Section 622*. Cable operators have expressed concern that any determination by the Commission, other than a finding that cable modem service falls within the classification of “cable service,” will potentially expose cable operators to refund liability for franchise fees previously paid to localities and collected from subscribers based on cable modem service revenues.[FN351] We understand that some cable operators, believing they were legitimately carrying out their obligations and rights under Title VI of the Act and local franchise agreements, collected franchise fees based on cable modem service revenues, identified these fees on subscriber bills, and remitted these franchise fees to local franchising authorities pursuant to the terms of their franchising agreements. In light of the Ninth Circuit's decision that cable modem service is not a “cable service,” some cable operators have suspended collecting and remitting franchise fees for revenues from cable modem service in Ninth Circuit States out of concern about their exposure to significant litigation risk if they were to continue collecting a franchise fee on cable modem service.[FN352] We understand that subscribers in other jurisdictions have raised the issue of whether franchise fees were lawfully collected ***4852** from them and whether the fees collected should be refunded.[FN353]

****31** 107. While the Commission generally will not assert jurisdiction over franchise fee disputes that concern matters of local taxation, the Commission's policy has been to resolve franchise fee questions that bear directly on a national policy concerning communications and that call upon our expertise.[FN354] We seek comment on whether disputes regarding franchise fees based on cable modem service implicate such a national policy, given that the fees in question were collected pursuant to section 622 and that our classification decision will alter, on a national scale, the regulatory treatment of cable modem service. We seek comment on whether it is appropriate to exercise our jurisdiction under section 622 to resolve the issue of previously collected franchise fees based on cable modem service revenues or whether these issues are more appropriately resolved by the courts. We note that until the release of the Commission's declaratory ruling to the contrary, cable operators and local franchising authorities believed in good faith that cable modem service was a “cable service” for which franchise fees could be collected pursuant to section 622. As illustrated by the Fourth Circuit's statement in *Henrico County*, that “the issue of the proper regulatory classification of cable modem service ... is complex and subject to considerable debate,”[FN355] cable operators and franchising authorities could not have been

expected to predict that the Commission would classify cable modem service as other than a cable service.

108. *Consumer Protection and Customer Service*. We also seek comment on how our information service classification may affect other aspects of State or local regulation, such as consumer protection and customer service standards regarding cable modem service. Franchising authorities have expressed concern that their authority to impose consumer protection requirements pursuant to section 632 of the Communications Act would be affected if cable modem service is not classified as "cable service."[FN356] Does the authority conferred on franchising authorities by section 632(a) of the Communications Act to establish and enforce customer service requirements apply to cable modem service provided by a cable operator?[FN357] Do the provisions in section 632(d), stating that nothing in Title VI "shall be construed to prohibit any State or any franchising authority from enacting or enforcing any consumer protection law, to the extent not specifically preempted by [Title VI]," or "to prevent the establishment or enforcement" of customer service laws or regulations" that exceed Commission standards or address matters not addressed by Commission standards under section 632, apply to cable modem service?[FN358]

**2. Pole Attachments**

109. The Pole Attachment Act gives cable television systems and providers of telecommunications service the right to attach to poles of power and telephone companies at regulated ***4853** rates.[FN359] In *Gulf Power*, the United States Supreme Court held that the Pole Attachment Act applies to attachments by cable television systems that provide Internet service in addition to traditional cable service, without regard to the classification of the commingled cable modem service.[FN360] An attachment not falling within the statutory rate formulas provided in sections 224(d) for attachments by cable service providers or 224(e) for attachments by telecommunications service providers would be subject to just and reasonable rates prescribed by the Commission.[FN361] In the *Pole Attachment Order*, the Commission had determined that the pole attachment rate applicable to attachments by cable television systems using pole attachments to provide both traditional cable services and Internet services should be determined by applying the formula specified in the statute for cable services.[FN362] That decision is not affected by our categorization of cable modem service.

**3. Universal Service**

****32** 110. Several commenters have questioned whether cable operators should be required to contribute to the universal service fund, pursuant to section 254(d) of the Communications Act,[FN363] based on the revenues from cable operators' cable modem service offerings.[FN364] In particular, commenters have focused on whether universal service contribution obligations should attach to what they characterize as the underlying telecommunications component of cable modem service.[FN365] The Commission is considering whether providers of cable modem service should contribute to the universal service fund in a separate proceeding.[FN366]

**4. Protection of Subscriber Privacy**

111. Section 631 of the Communications Act addresses privacy for subscribers to "any cable service or other service" provided by a cable operator.[FN367] "Other service" is defined as "any wire or radio communications service provided using any of the facilities of a cable operator that are used in the ***4854** provision of cable service"[FN368] and has been interpreted by a court to encompass Internet service provided via a cable system.[FN369] Section 631 requires cable operators to provide periodic written notice informing each subscriber about the nature and use of personally identifiable information to be collected by the cable operator. With certain exceptions, section 631 prohibits a cable operator from collecting or disclosing such information without the prior consent of the subscriber.[FN370] The cable operator can collect information needed to provide a cable service or other service and can disclose information for a business activity related to such services. Section 631 further provides that "[n]othing within this title shall be construed to prohibit any State or any franchising authority from enacting or enforcing laws consistent with this section for the protection of subscriber privacy."[FN371]

112. In light of our determination in the Declaratory Ruling that cable modem service is an information service, we believe that cable modem service would be included in the category of "other service" for purposes of section 631. We seek comment on this interpretation. Although section 631's terms are enforced by the courts, and not by the Commission,[FN372] we seek comment as to how the privacy requirements of section 631 affect providers of cable modem service.[FN373]

**V. ADMINISTRATIVE MATTERS**

**A. Initial Regulatory Flexibility Analysis**

113. As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"),[FN374] the Commission has prepared this Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on a substantial number of small entities by the policies and rules considered in the notice of proposed rulemaking initiated herein. Written public comments are requested on this IRFA. Comments must be identified as responses to this IRFA and must be filed by the deadlines for comments on the notice of proposed rulemaking provided in paragraph 126 of this item. The Commission will send a copy of the notice of proposed rulemaking, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration ("SBA").[FN375] In addition, the notice of proposed rulemaking and the ***4855** IRFA (or summaries thereof) will be published in the Federal Register.[FN376]

**1. Need for, and Objectives of, the Proposed Rules**

****33** 114. With our declaratory ruling herein, we have sought to provide regulatory certainty for the emerging cable modem service industry by resolving a nationwide controversy concerning the proper regulatory classification of cable modem service under federal law.[FN377] In doing so, we recognize that there are a number of re-

lated issues that may need resolution in the form of federal rules. By this notice of proposed rulemaking, we seek comment on certain issues related to the practical implementation of our classification of cable modem service as an information service.

**2. Legal Basis**

115. The authority for the action proposed in this rulemaking is contained in Sections 1, 2(a), 3, 4(i), 4(j), 303, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152(a), 153, 154(i), 154(j), 303, and 521, and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt.

**3. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply**

116. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[FN378] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[FN379] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[FN380] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[FN381]

117. The SBA has developed a small business size standard for cable and other program distribution," which includes all such companies generating $11 million or less in revenue annually.[FN382] This category includes, among others, cable operators, closed circuit television services, direct broadcast satellite services, multipoint distribution services, open video systems ("OVS"), satellite master antenna television ("SMATV") systems, and subscription television services. According to the Census Bureau data from 1992, there were 1,788 total cable and other pay television services and 1,423 had less than $11 ***4856** million in revenue.[FN383] We address cable operators and OVS operators below to provide a more precise estimate of the affected small entities. We do not believe that the other pay television services would be affected by the proposals in this notice of proposed rulemaking.

****34** 118. *Cable Systems*. The Commission has developed its own small business size standard for a small cable operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide.[FN384] Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable companies at the end of 1995.[FN385] Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small cable companies that may be affected by the proposed rules.

119. The Communications Act of 1934, as amended, also contains a size standard for a "small cable operator," which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[FN386] The Commission has determined that there are 67,700,000 subscribers in the United States.[FN387] Therefore, an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[FN388] Based on available data, we estimate that the number of cable operators serving 677,000 subscribers or less totals approximately 1,450.[FN389] We do not request or collect information on whether cable operators are affiliated with entities whose gross annual revenues exceed $250,000,000,[FN390] and therefore are unable to estimate accurately the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

120. *Open Video Systems*. Because OVS operators provide subscription services,[FN391] OVS falls within the SBA-recognized definition of "Cable and Other Program Distribution."[FN392] This standard ***4857** provides that a small entity is one with $11 million or less in annual receipts.[FN393] The Commission has certified approximately 25 OVS operators to serve 75 areas, and some of those are currently providing service.[FN394] Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, D.C. and other areas. RCN has sufficient revenues to assure us that they do not qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational. Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities.

**4. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements**

****35** 121. The notice of proposed rulemaking seeks comment on the regulatory implications of the Commission's finding that cable modem service is an information service under the Communications Act.[FN395] Specifically, the notice of proposed rulemaking seeks comment on whether the Commission should require cable operators that provide cable modem service to allow unaffiliated ISPs to have direct access to the cable operator's subscribers via the cable system facilities.

122. The notice of proposed rulemaking also seeks comment on the scope of state and local government authority over cable modem service in light of the Commission's finding that it is an information service. This determination may not have a direct effect on small entities, but indirectly it may impact small entities, such as small cable operators, if local governments are permitted to require cable operators to grant unaffiliated ISPs access to the cable system or if local governments are permitted to enforce other regulations that affect a cable operator's

provision of cable modem service.

**5. Steps Taken to Minimize Significant Impact on Small Entities and Significant Alternatives Considered**

123. The IRFA requires an agency to describe any significant alternatives that it has considered in proposing regulatory approaches, which may include, among others, the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

124. The notice of proposed rulemaking seeks comment on several regulatory alternatives to implement the Commission's classification of cable modem service as an information service under the Communications Act. For example, alternatives considered in the notice of proposed rulemaking include whether unaffiliated ISPs should be provided with access to cable systems and, if so, which of the various access models should be adopted. In addition, we will also consider whether any access requirements ultimately adopted should be different for large cable operators from those imposed on small cable operators.[FN396] Finally, the notice of proposed rulemaking considers whether the Commission should refrain entirely from imposing any ISP access requirements on cable operators. We would expect that whichever alternatives are chosen the Commission will seek to minimize any adverse effects on small ***4858** entities.

**6. Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals**

125. None.

**B. Procedural Provisions**

126. *Comments and Reply Comments*. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules,[FN397] interested parties may file comments on the notice of proposed rulemaking in CS Docket No. 02-52, *Appropriate Regulatory Treatment for Broadband Access to the Internet over Cable Facilities*, on or before 60 days after date of publication in the Federal Register, and reply comments on or before 90 days after date of publication in the Federal Register. Comments may be filed using the Commission's Electronic Comment Filing System (“ECFS”) or by filing paper copies.[FN398] Given recent changes in the Commission's mail delivery system, parties are strongly urged to use the ECFS to file their pleadings. Comments filed through the ECFS can be sent as an electronic file via the Internet to < http://www.fcc.gov/e-file/ecfs.html>. Only one copy of an electronic submission must be filed. In completing the transmittal screen, electronic filers should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To receive 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.

****36** 127. Parties who choose to file by paper must file an original and four copies of each filing in CS Docket No. 02-52. If parties want each Commissioner to receive a personal copy of their comments, an original plus nine copies must be filed. All filings must be sent to the Commission's Acting Secretary, William F. Caton, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington D.C. 20054. All filings sent to the Commission by overnight delivery, *e.g.*, Federal Express, must be sent to the Commission's Acting Secretary, William F. Caton, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington D.C. 20024. All hand-delivered or messenger-delivered filings must be delivered to the Commission's filing location at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002-4913.[FN399] The filing hours at this facility are 8:00 a.m. to 7:00 p.m. Parties must also serve the following with either one copy of each filing via e-mail or two paper copies: (1) Qualex International, Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C., 20554, telephone (202) 863-2893, facsimile (202) 863-2898, or e-mail at qualexint@aol.com; and (2) Sarah Whitesell, Cable Services Bureau, 445 12th Street, S.W., 3-C488, Washington, D.C., 20554, swhitese@fcc.gov. In addition, five copies of each filing must be filed with Linda Senecal, Cable Services Bureau, 445 12th Street, S.W., 2-C438, Washington, D.C. 20554, lsenecal@fcc.gov.

128. *Ex Parte Rules*. This proceeding will be treated as a “permit-but-disclose” proceeding, subject to the “permit-but-disclose” requirements under section 1.1206(b) of the Commission's rules.[FN400] Ex parte presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, ex parte or otherwise, are generally prohibited. Persons ***4859** making oral ex parte presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance 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.[FN401] Additional rules pertaining to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules. Parties submitting written ex parte presentations or summaries of oral ex parte presentations are urged to use the ECFS in accordance with the Commission rules discussed above. Parties filing paper ex parte submissions must file an original and one copy of each submission with the Commission's Acting Secretary, William F. Caton, at the appropriate address as shown above for filings sent by either U.S. mail, overnight delivery, or hand or messenger delivery. Parties must also serve the following with either one copy of each ex parte filing via e-mail or two paper copies: (1) Qualex International, Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C., 20554, telephone (202) 863-2893, facsimile (202) 863-2898, or e-mail at qualexint@aol.com; and (2) Sarah Whitesell, Cable Services Bureau, 445 12th Street, S.W., 3-C488, Washington, D.C.,

20554, swhitese@fcc.gov; and (3) Linda Senecal, Cable Services Bureau, 445 12th Street, S.W., 2-C438, Washington, D.C. 20554, lsenecal@fcc.gov.

**37 129. *Availability of Documents*. Comments, reply comments, and ex parte submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street, S.W., CY-A257, Washington, D.C. 20554. Persons with disabilities who need assistance in the FCC Reference Center may contact Bill Cline at (202) 418-0267, (202) 418-7365 TTY, or bcline@fcc.gov. These documents also will be available electronically at the Commission's Disabilities Issues Task Force web site: www.fcc.gov/dtf, and from the Commission's Electronic Comment Filing System. Documents are available electronically in ASCII text, Word 97, and Adobe Acrobat. Copies of filings in this proceeding may be obtained from Qualex International, Portals II, 445 12th Street, S.W., Room, CY-B402, Washington, D.C., 20554, telephone (202) 863-2893, facsimile (202) 863-2898, or via e-mail at qualexint@aol.com.

130. This document is available in alternative formats (computer diskette, large print, audio cassette, and Braille). Persons who need documents in such formats may contact Brian Millin at (202) 418-7426, TTY (202) 418-7365, or send an e-mail to access@fcc.gov.

131. *Contact Information*. The Cable Services Bureau contact for this proceeding is Sarah Whitesell at (202) 418-7200, swhitese@fcc.gov. Press inquiries should be directed to Michelle Russo at (202) 418-2358, mrusso @fcc.gov. TTY: (202) 418-7365 or (888) 835-5322.

132. *Declaratory Ruling*. Any future pleadings filed in response to the declaratory ruling in this Order should be filed under the caption, “Internet Over Cable Declaratory Ruling,” GN Docket No. 00-185, separately from the comments filed in CS Docket No. 02-52.

***4860 VI. ORDERING CLAUSES**

133. Accordingly, IT IS ORDERED, that pursuant to authority contained in sections 1, 2, 3, 4, 303, 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 153, 154, 303, 403, 521, section 706 of the Telecommunications Act of 1996, and section 1.2 of the Commission's Rules and Regulations, 47 C.F.R. § 1.2, this Declaratory Ruling and Notice of Proposed Rulemaking ARE ADOPTED.

**38 134. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 2, 3, 4, 303, 403, and 601 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 153, 154, 303, 403, 521, section 706 of the Telecommunications Act of 1996, and section 1.2 of the Commission's Rules and Regulations, 47 C.F.R. § 1.2, NOTICE IS HEREBY GIVEN of the proposals described in this Notice of Proposed Rulemaking.

135. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Ref-

erence Information Center, shall send a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

FN1. For purposes of this proceeding, we use the definition of the Internet that has been adopted by the Federal Networking Council: "'Internet' refers to the global information system that -- (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons; (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and (iii) provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein." *See FNC Resolution: Definition of 'Internet,' available at* http://www.itrd.gov/fnc/Internet_res.html, visited Jan. 22, 2002. Statutory definitions of the Internet are in Communications Act § 230(f)(1), 47 U.S.C. § 230(f)(1) ("the international computer network of both Federal and non-Federal interoperable packet switched data networks") and Communications Act § 231(e)(3), 47 U.S.C. § 231(e)(3) ("the combination of computer facilities and electromagnetic transmission media, and related equipment and software, comprising the interconnected worldwide network of computer networks that employ the Transmission Control Protocol/Internet Protocol or any successor protocol to transmit the information.").

FN2. We have observed that "Internet access services ... alter the format of information through computer processing applications such as protocol conversion and interaction with stored data." *See Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress ("*Universal Service Report*"), 13 FCC Rcd 11501, 11516-17 ¶ 33 (1998) (citations and internal quotations omitted). We note that, for purposes of Section 231 ("Restriction of Access by Minors to Materials Commercially Distributed by Means of World Wide Web That Are Harmful to Minors") of the 1996 Act (*infra* note 13), Congress has defined the term "Internet access service" to mean: "a service that enables users to access content, information, electronic mail, and other services offered over the Internet, and may also include access to proprietary content, information, and other services as part of a package of services offered to consumers. Such term does not include telecommunications services." 47 U.S.C. § 231(e)(4). We presume that the last sentence is intended to clarify that section 231 was not intended to impair our or a state commission's ability to regulate basic telecommunications services. *See* H.R. Rep. 105-570(I) at * 20. We also note that litigation concerning the constitutionality of section 231 is underway (*e.g.*, *ACLU v. Reno*, 217 F.3d 162 (3d Cir. 2000), *cert. granted*, 121 S. Ct. 1997 (2001)), but does not concern the definition of Internet

access service. The same definition appears in sections 1101(e)(3)(D) and 1104(5) of the Internet Tax Freedom Act, Pub. L. No. 105-277, Div. C, Title XI, §§ 1100-1104, 112 Stat. 2681-719 (1998), 47 U.S.C. § 151 note ("Internet Tax Freedom Act").

We have defined "high-speed" Internet access in general as a service that "enables consumers to communicate over the Internet at speeds that are many times faster than the speeds offered through dial-up telephone connections" and that enables subscribers to "send and view content with little or no transmission delay, utilize sophisticated 'real-time' applications, and take advantage of other high-bandwidth services." *See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, CS Docket No. 00-30, Memorandum Opinion and Order ("*FCC AOL Time Warner Merger Order*"), 16 FCC Rcd 6547, 6572 ¶ 63 (2001). *See also id.*, 6572 ¶ 64, 6574-77 ¶¶ 69-73.

FN3. *See* Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Industry Overview: The Marquis de Broadbandbury - Parte Deux*, Morgan Stanley Dean Witter ("*Morgan Stanley July 2001 Report*"), July 3, 2001, at 46.

FN4. 47 U.S.C. §§ 151 *et seq*.

FN5. We do not intend this proceeding to affect high-speed Internet access provided by facilities licensed in Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Local Multipoint Distribution Service, Satellite Master Antenna Television Systems, or other primarily wireless technologies. Also, we are aware of offerings of high-speed Internet access that are targeted at businesses, including small ones. *See, e.g.*, Comcast Corp., Broadband Commuter Service, *available at* http:// www.comcastbusiness. com/ pdf/Broadband_Commuter_Service.pdf (visited Feb. 11, 2002). We are not considering those offerings in this proceeding.

FN6. *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, Notice of Inquiry, 13 FCC Rcd 15280, 15308-11 ¶¶ 77-82 (1998). *See also 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 ("*First 706 Report*"), 14 FCC Rcd 2398, 2449 ¶¶ 100-01 (1999).

FN7. *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 ("*Internet Ventures*"), 15 FCC Rcd 3247 (2000).

FN8. *See FCC AOL Time Warner Merger Order*, 16 FCC Rcd at 6588-92 ¶¶ 93-100 (prohibiting specific kinds of discrimination against unaffiliated Internet service providers ("ISPs"), their first screens, their content, and the quality of service afforded to them); *America Online, Inc., and Time Warner, Inc.*, Federal Trade Commission, Docket No. C-3989, File No. 001 0105, Decision and Order ("*FTC AOL Time Warner Merger Order*"), §§ II, III (Dec. 14, 2000) (requiring access for a small number of unaffiliated ISPs and prohibiting interference with the content of unaffiliated ISPs and discrimination against the content of unaffiliated ISPs); *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 ("*AT&T-MediaOne Merger Order*"), 15 FCC Rcd 9816, 9869-73 ¶ ¶ 120-28 (2000) (noting AT&T commitment to provide unaffiliated ISPs with access to its cable systems, and the Department of Justice consent decree requiring AT&T to divest MediaOne's ownership of Road Runner and to seek DOJ approval before entering into certain types of agreements with Time Warner or AOL relating to the provision of high-speed Internet access services); *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 ("*AT&T-TCI Merger Order*"), 14 FCC Rcd 3160, 3205-07 ¶¶ 93-96 (1999) (no requirement imposed).

FN9. *See* Cable Services Bureau, *Broadband Today: A Staff Report to William E. Kennard, Chairman, Federal Communications Commission*, Oct. 1999; Barbara Esbin, *Internet Over Cable: Defining the Future in Terms of the Past* (OPP Working Paper Series No. 30, 1998); Kevin Werbach, *Digital Tornado: The Internet and Telecommunications Policy* (OPP Working Paper Series No. 29, 1997) ("*Werbach Paper*"). In addition, local franchising authorities, the Department of Justice, and the Federal Trade Commission have also studied the issue carefully. *See* City of Fresno City Manager's Office, *Report to Council on AT&T / MediaOne Merger - Open Access* (May 11, 2000); King County Expert Review Panel, *Applying a Policy of Non-Discriminatory Access to High-Speed Internet Access Over Cable in King County, Washington* (Oct. 1999); City of Los Angeles Info. Tech. Agency, *Broadband Access Report* ("*Los Angeles Report*") (June 1999); Sacramento Metro. Cable Tele. Comm'n, *Cable Modem and Internet Services - Open Net / Forced Access* (Nov. 4, 1999); County of San Diego Cable Tele. Review Comm'n Staff, *Broadband Internet Open Access Report and Recommendations* (Sept. 13, 1999); City and County of San Francisco Dep't of Telecommun. and Info. Services, *Open Access Report* ("*San Francisco Report*") (Jan. 14, 2000). With the exception of San Francisco and Los Angeles, all of the local franchising authorities adopted recommendations not to impose an access requirement at this time. The *San Francisco Report* recommended a multiple ISP access requirement, but the recommendation was subsequently abandoned by the San Francisco Board of Supervisors following the Ninth Circuit's *Portland* decision. *See* City and County of San Francisco Reply Comments at 3-4; CCTA Reply Comments at 7; *AT&T Corp. v. City of Portland ("Portland")*, 216 F.3d 871 (9th Cir. 2000), *reversing* 43 F. Supp. 2d 1146 (D. Ore. 1999). The Los Angeles City Council passed a

resolution directing the Los Angeles City Attorney to urge the federal government to adopt an access requirement for all cable operators nationwide despite the *Los Angeles Report's* recommendation not to impose an access requirement at the time it was released. *See* Letter from Edward J. Perez, City of Los Angeles, to Magalie Roman Salas, Secretary, FCC, (Mar. 13, 2001). *See also FTC AOL Time Warner Merger Order, supra* note 8; *United States v. AT&T Corp. and MediaOne Group, Inc.*, Case No. 1:00CV01176, Final Judgment (D.D.C., filed May 25, 2000), *available at* http://www.usdoj.gov/atr/cases/f4800/4841.htm (visited Jan. 24, 2002).

FN10. *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 (“*Second 706 Report*”), 15 FCC Rcd 20913, 20918 ¶ 8 (2000); *First 706 Report*; 14 FCC Rcd at 2402 ¶¶ 6-7 (both reports finding that deployment of advanced telecommunications capability on the whole appears reasonable and timely). *See also National Cable & Telecommun. Ass'n v. Gulf Power Co.*, 122 S. Ct. 782, 788 (2002) (“*Gulf Power*”) (noting “that the FCC ... has not yet categorized Internet service.”).

FN11. *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, GN Docket No. 00-185, Notice of Inquiry (“*Notice*”), 15 FCC Rcd 19287 (2000).

FN12. *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 (“*Wireline Broadband NPRM*”) ¶ 3 (rel. Feb. 15, 2002).

FN13. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (“1996 Act”).

FN14. *See* Pub. L. No. 104-104, Title VII, § 706, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. § 157 (“Section 706”). Section 706 defines “advanced telecommunications capability” “without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.” *Id*. We have noted that our definition of “advanced telecommunications capability” will evolve over time. *See First 706 Report*, 14 FCC Rcd at 2407-08 ¶ 25; *Second 706 Report*, 15 FCC Rcd at 20921 ¶ 14.

FN15. *See* Communications Act § 230(b)(2), 47 U.S.C. § 230(b)(2).

FN16. *See Wireline Broadband NPRM, supra* note 12, ¶ 5.

FN17. *See id., supra* note 12.

FN18. NTIA & Economics and Statistics Administration, US Department of Commerce, *A Nation Online: How Americans are Expanding Their Use of the Internet*, Feb. 5, 2002, at 5; *see also 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, Third Report ("*Third 706 Report*"), FCC 02-33 (rel. Feb. 6, 2002) ¶ 63.

FN19. We use the term "narrowband" here to refer to Internet access service that is designed to operate at speeds of less than 200 kilobits-per-second ("Kbps") in both directions. *See Second 706 Report*, 15 FCC Rcd 20913, 20917 ¶¶ 8, 10, 12; *see also Third 706 Report*, FCC 02-33, ¶¶ 7, 9, and 11. The most common form of narrowband Internet access service is provided over traditional telephone lines (also known as "dial-up"), which currently allows for the transfer of data at speeds up to 56 Kbps. *See FCC AOL Time Warner Merger Order*, 16 FCC Rcd 6547, 6551 ¶ 8, n.11.

FN20. *See Wireline Broadband NPRM, supra* note 12, ¶ 1 n.2; *supra* note 14.

FN21. Residential Internet access services are discussed more fully in the *FCC AOL Time Warner Merger Order. See FCC AOL Time Warner Merger Order*, 16 FCC Rcd 6547, 6568, 6571-74 ¶¶ 53, 62-67.

FN22. *See Third 706 Report*, FCC 02-33, ¶¶ 21-24.

FN23. *See Second 706 Report*, 15 FCC Rcd 20913, 20922, 20928-38, 20942-43 ¶¶ 16, 29-59, 71-72; *see also Third 706 Report*, FCC 02-33, ¶¶ 24-26.

FN24. *See* Morgan Stanley Dean Witter and Yankee Group Study, July 2001; Information Technology Association of America, *Building a Positive, Competitive Broadband Agenda: Positively Broadband*, White Paper (Oct., 2001) at http://www.postivelybroadband.org (visited Dec. 20, 2001); *Morgan Stanley July 2001 Report*, at 46; *Third 706 Report*, FCC 02-33, ¶ 61. Availability figures are based on the availability of wireline services (cable and DSL). Satellite is available to any household with a clear southern view, but is subject to propagation delay (delay in the transmission of signals that results from the time it takes the signals to travel between the satellites and earth stations or the end user), and is available at a higher cost than wireline services. The Commission estimates that as of June 30, 2001, about 7.8 million households subscribed to high-speed services. *Third 706 Report*, FCC 02-33, ¶ 7.

FN25. As a result of its Form 477 survey, the Commission has found that in 20.3% of zip codes in the U.S., there are subscribers to only one high-speed access provider, and 22.2% of zip codes have no subscribers to high-speed access providers at all. *Third 706 Report*, FCC 02-33, Appendix C, Table 9. These data, based on the latest Form 477 survey, measured the presence of at least one subscriber to high-speed access providers, not the actual availability of such providers. Thus multiple high-speed access providers may be available in a much higher percentage of

zip codes, but not have any subscribers in those zip codes. In addition this survey did not measure the number of subscribers in each zip code. Therefore, these figures do not measure the distribution of population in these zip codes, but it is likely that more high-speed access providers are available in areas with higher population densities. *See* *Second 706 Report*, 15 FCC Rcd 20913, 20994-21003 ¶¶ 213-243; *see also* *Third 706 Report*, FCC 02-33, ¶¶ 17-26.

FN26. *See* Kinetic Strategies, Inc., *Cable Modem Market Stats & Projections (December 21, 2001)*, CABLE DATACOM NEWS, at http://www.cabledatacomnews.com/cmic/cmic16.html (visited Jan. 23, 2002).

FN27. *Id*. Generally, unless we state otherwise, our references to "DSL" throughout this Order refer to asymmetric DSL ("ADSL"). Asymmetric DSL is the most common variant of DSL used by residential subscribers, and is available at various speeds ranging up to 6.1 mbps downstream and 640 Kbps upstream. *See* *Second 706 Report*, 15 FCC Rcd 20913, 20930, 20934 ¶¶ 36, 47. Currently, at lowest cost, ADSL service usually provides transmission at 384-640 Kbps downstream and 90-128 Kbps upstream.

FN28. Kagan World Media, *MMDS Sub Base*, Broadband Fixed Wireless, Sept. 30, 2001, at 4; *2-Way Satellite Internet Access Poised For Growth*, COMM. DAILY, Jan. 11, 2002.

FN29. *See* Stephen Lawson, IDG News Service, *SBC Pares Back Its DSL Efforts*, PCWORLD.COM, Oct. 23, 2001, at http://www.pcworld.com/news/article/0,aid,67606,00.asp (visited Jan. 23, 2002); Kinetic Strategies, Inc., *Broadband Providers Boost Prices: Verizon, BellSouth and EarthLink Join SBC in Raising Consumer DSL Prices, AT&T and Charter Lift Cable Modem Rates*, CABLE DATACOM NEWS, June 1, 2001, at http://www.cabledatacomnews.com/jun01/jun01-5.html (visited Jan. 23, 2002). While SBC has scaled back its efforts to deploy DSL, Bell South continues to advance its deployment efforts successfully. COMM. DAILY, Jan 10, 2002, at 14.

FN30. *See* Letter from Alexandra M. Wilson, Chief Policy Counsel, Cox Communications, Inc., to W. Kenneth Ferree, Chief, Cable Services Bureau, FCC, at 4-5, transmitted by letter from To-Quyen Truong, Counsel for Cox Communications, Inc., to Magalie Roman Salas, Secretary, FCC (Aug. 15, 2001) ("Cox Aug. 15, 2001 Ex Parte").

FN31. *See Bova v. Cox Communications, Inc.*, Cox Communications, Inc. and CoxCom, Inc., Statement of Facts, Civil Action No. 7:01 CV 00090 (W.D. Va.) (filed Sept. 19, 2001) ("*Bova Statement of Facts*") at 4.

FN32. "E-mail" or "electronic mail" refers to the transmission of electronic messages over communications networks. These messages can be entered from a keyboard or through electronic files stored on a disk. Most e-mail systems include a text editor for composing messages. A user sends the message to the recipient by specifying the recipient's domain-based address, *i.e.*, jsmith @abcd.com. Sent messages are stored in electronic mailboxes until retrieved by the recipient. *See*

Webopedia, *E-mail - Definition*, at http:// www.webopedia.com/TERM/e/e_mail.html (visited Jan. 9, 2002); NEWTON'S TELECOM DICTIONARY 247 (17th ed. 2001). Simple Mail Transfer Protocol ("SMTP") is the message exchange standard for the Internet. It is familiar to most people by its addressing scheme - the username@company.com scheme. SMTP provides the very important function of moving messages from one email server to another. It works in conjunction with Post Office Protocol ("POP"), which is a mail server protocol that provides an incoming and outgoing message server and storage system. POP receives mail and holds it in a user's post office mailbox while SMTP provides message transport services. *See* MCGRAW HILL ENCYCLOPEDIA OF NETWORKING & TELECOMMUNICATIONS 438 (2001).

FN33. A "newsgroup" or "news group" is an on-line forum or discussion group whereby users view and post messages using a news reader, a computer program that connects the user to a server on the Internet that stores the posted messages for the group. Each newsgroup usually focuses on a specific topic, and newsgroups cover a vast array of topics. *See* Webopedia, *Newsgroup - Definition*, at http://www.webopedia.com/TERM/n/newsgroup.html (visited Jan. 9, 2002). Physically, the newsgroup consists of the computer files that contain the conversation elements to the discussions currently in progress about each agreed upon topic. Cable operators or ISPs get their newsgroups from different news-feeds (or "newsfeeds"), or news sources, by transferring them over the Internet or other networks. *See* NEWTON'S TELECOM DICTIONARY 475 (17th ed. 2001).

FN34. The cable modem service provider typically offers a finite amount of storage capacity on one of its local servers to host, *i.e.* store and provide access via the World Wide Web, the personal web pages of its subscribers. *See, e.g.*, Cox Aug. 15, 2001 Ex Parte; Letter from Darryl Cooper, Corporate Counsel, Excite@Home, to Magalie Roman Salas, Secretary, FCC (Aug. 17, 2001) ("Excite @Home Aug. 17, 2001 Ex Parte"); *Bova Statement of Facts, supra* note 31, at 5.

FN35. The "World Wide Web" is a system of Internet servers, *i.e.*, computers connected to the Internet, that support documents formatted in a script called HyperText Markup Language ("HTML"), which supports links to other documents, as well as graphics, audio, and video files. This means that a user can move from one document to another simply by clicking on links contained in an HTML-formatted document. Not all Internet servers are part of the World Wide Web. There are several applications called Web browsers that make it easy to access the World Wide Web; two of the most popular browsers are Netscape Navigator and Microsoft's Internet Explorer. *See* Webopedia, *World Wide Web - Definition*, at http://www.webopedia.com/TERM/W/World_Wide_Web.html (visited Jan. 9, 2002); Letter from Betsy J. Brady, Esq., Vice President, Federal Government Affairs, AT&T, to Magalie Roman Salas, Secretary, FCC (Dec. 15, 2000) ("AT&T Dec. 15, 2000 Ex Parte"), Attachment at 4.

FN36. References to "speed" in this context actually refer to the transmission rates for data, *i.e.*, how many bits can be delivered per second, *e.g.*, megabits

per second (“Mbps”). *See* NATIONAL ACADEMY OF SCIENCES, BROADBAND: BRINGING HOME THE BITS 65 (2002) (“*NAS Broadband Report*”).

FN37. *See* Comcast Reply Comments in the *2001 MVPD Competition Report*, at 7; *see also* Cox Comments at 10; *see also* Cablevision Systems Corp., *Optimum Online*, at http://www.optimumonline.com (visited Jan. 9, 2002). Under optimal conditions with DOCSIS (“Data Over Cable Service Interface Specification”) 1.0, Internet access over cable infrastructure may support up to 38 Mbps downstream. Upstream channels may deliver 500 Kbps to 10 Mbps, depending on the amount of spectrum allocated and modulation technique used. However, because cable broadband network capacity is shared among users and because of hardware limitations, an individual cable modem subscriber may generally experience speeds from 500 Kbps to 1.5 Mbps -- depending on the specific network architecture and traffic load. *See generally* Kinetic Strategies, Inc., *Overview of Cable Modem Technology and Services*, at http://www.cabledatacomnews.com/cmic/cmic1.html (visited Jan. 9, 2002). DOCSIS is an open standard for data communications involving cable modems and cable systems. *See* CableLabs, *DOCSIS Project Primer*, at http://www.cablelabs.com/docsisprimer.html (visited Feb. 20, 2002).

FN38. “Real time” applications, such as live voice or video communications, are those communications where there is no perceived delay in their transmission, as the communication is being received perceptively at the same time it is transmitted. *See* NEWTON'S TELECOM DICTIONARY 572 (17th ed. 2001).

FN39. “Streaming video” refers to the transmission of packets over the Internet containing a video signal, which is viewable as it is transmitted and before the entire file is downloaded to the user's computer. *See* NEWTON'S TELECOM DICTIONARY 655 (17th ed. 2001). In the case of RealNetworks' streaming media, a song or video starts to play on a user's computer before the entire song or video file is downloaded. In other words, data continues to download while the song or video plays. No space is used on the user's computer's hard drive to store the song or video file. *See* MCGRAW-HILL ILLUSTRATED TELECOM DICTIONARY 824 (2nd Ed. 2000).

FN40. *See, e.g.*, Road Runner, *Best of Broadband - Media Runner: Instant Videos and Breaking Headlines* at http://rrcorp.central.rr.com/vm_media_runner01.asp (describing Road Runner's “Media Runner” streaming video feature) (visited Jan. 9, 2002).

FN41. An “Intranet” is a private network that is the equivalent of a “private Internet” reserved for those users who have the authority and passwords to access the network. *See* NEWTON'S TELECOM DICTIONARY 366 (17th ed. 2001); *see also, e.g.*, Road Runner, *Residential Service: What is Road Runner?* at http://rrcorp.central.rr.com/hso/whatis.asp and *Residential Service: Features*, at http://rrcorp.central.rr.com/hso/explore_features.asp (describing Road Runner, a high-speed Internet access service) (visited Jan. 10, 2002). Intranets house applications such as databases, user publishing, search vehicles, and administrative

and management tools.

FN42. *See, e.g.*, Road Runner, *Residential Service: What is Road Runner?* at http://rrcorp.central.rr.com/hso/whatis.asp and *Residential Service: Features*, at http://rrcorp.central.rr.com/hso/explore_features.asp (describing Road Runner, a high-speed Internet access service) (visited Jan. 10, 2002).

FN43. "Internet access providers," also referred to as ISPs, combine computer processing, information storage, protocol conversion, and routing with transmission to enable users to access Internet content and services. *See Universal Service Report*, 13 FCC Rcd at 11530 ¶ 63 n.125; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Remand, 15 FCC Rcd 385 ¶ 34 (1999); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68, 14 FCC Rcd 3689, 3691 ¶ 4 (1999); *GTE Tel. Operating Cos., GTOC Tariff No. 1, GTOC Transmittal No. 1148*, CC Docket No. 98-79, Memorandum Opinion and Order ("*GTE ADSL*"), 13 FCC Rcd 22466, 22468-9 ¶ 6 (1998), *recon. denied*; *Application of WorldCom, Inc. and MCI Communications Corporation for Transfer of Control of MCI Communications Corporation to WorldCom, Inc.*, CC Docket No. 97-211, Report and Order, 13 FCC Rcd 18025, 18104-05 ¶ 143 (1998). We recognize that this construction of the term ISP may become outdated as business models evolve. We do not intend to suggest that cable modem service providers, or other entities that provide services that go beyond those described above, could not be considered to be ISPs.

FN44. *See, e.g.*, Road Runner, *Residential Service: What is Road Runner?* at http://rrcorp.central.rr.com/hso/whatis.asp and *Residential Service: Features*, at http://rrcorp.central.rr.com/hso/explore_features.asp (describing Road Runner, a high-speed Internet access service) (visited Jan. 10, 2002).

FN45. *See FCC AOL Time Warner Order*, 16 FCC Rcd at 6594 ¶¶ 105-106. We are not aware of any cable operator that prevents subscribers from reaching the content of their choice.

FN46. A Uniform Resource Locator ("URL") "is the global address for documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, *i.e.*, http, and the second part specifies the IP address or the domain name where the resource is located," *i.e.*, fcc.gov. *See* Webopedia, *URL Definition*, at http://www.webopedia.com/TERM/U/URL.html (visited Jan. 10, 2002).

FN47. For example, AOL charges $14.95 a month for its "Bring Your Own Access" service. Yahoo! and MSN Hotmail do not charge a fee for similar services. *See* America Online, *AOL Pricing Plans*, at http://www.aol.com/info/pricing.html (visited Jan. 9, 2002); Yahoo, *Yahoo! Terms of Service*, at http:// docs.yahoo.com/info/terms/ (visited Jan. 9, 2002); MSN, *Hotmail Information - Frequently Asked Questions* at

http://www.msn.com (visited Jan. 9, 2002).

FN48. Many cable systems had some "upstream" capability, *i.e.*, ability for the subscriber to transmit information back to the cable operator through the cable system, even before systems were upgraded to provide cable modem service, but this tended to be for simple, user-to-system messages, such as ordering pay-per-view programs. *See* CableLabs®, *DOCSIS Project Primer*, at http:// www.cablemodem.com/docsisprimer.html (visited Jan. 10, 2002).

FN49. Newer cable systems, such as those constructed by overbuilders, generally are designed to provide an array of services, including advanced services such as cable modem service. These systems typically are constructed to modern specifications and can provide advanced services without additional upgrades. *See generally* Letter from Charles A. Rohe and D. Anthony Mastando, Counsel, Carolina BroadBand, Inc. to Magalie Roman Salas, Secretary, FCC, WT Docket No. 99-217, CC Docket Nos. 96-98, 88-57, CS Docket No. 95-184, MM Docket No. 92-260 (May 3, 2001).

FN50. *See generally NAS Broadband Report*, Appendix A at 245-55.

FN51. As of June 2001, many major MSOs had significantly upgraded their networks. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 01-129, Eighth Annual Report, FCC 01-389, ¶¶ 32-33 (rel. Jan. 14, 2002) (*"2001 MVPD Competition Report"*).

FN52. A "headend" is "the origination point for signals in the cable system. Each local service area is typically served by one or more headends. The headend has parabolic or other appropriately shaped antennas for receiving satellite-delivered program signals, high-gain directional antennas for receiving distant TV broadcast signals, directional antennas for receiving local signals, machines for playback of taped programming and commercial insertion, and studios for local origination and community access programming." *See* WALTER CICIORA AT AL., MODERN CABLE TELEVISION TECHNOLOGY 12 (1999). The headend may also house equipment to connect the cable system to the Internet. *Id.*; *see also* Letter from Steven N. Teplitz, Vice President and Associate General Counsel, AOL Time Warner, to Royce Sherlock, Deputy Chief, Policy and Rules Division, Cable Services Bureau, FCC (January 22, 2002) ("AOL Time Warner Jan. 22, 2002 Ex Parte") at 4-5.

FN53. *See supra* note 8; *see also* Kinetic Strategies, Inc., *Overview of Cable Modem Technology and Services*, at http:// www.cabledatacomnews.com/cmic/cmic1.html (visited Jan. 9, 2002); Dan Costa, *Cable: This Technology is the Simplest and Most Popular Option*, ZDNET, Dec. 14, 2001, at http://msn.zdnet.com/msn/zdnet/story/0,12461,2671130-hud00025inmn1, 00.html.

FN54. *See* Kinetic Strategies, Inc., *Transport Diagram - Home Environment*, at http://www.cabledatacomnews.com/cmic/home.html (visited Jan. 9, 2001); AOL Time Warner Jan. 22, 2002 Ex Parte at 4-5.

FN55. We recognize that when a cable modem service subscriber initiates his cable modem service, the cable modem service subscriber's computer becomes a part of the Internet, *i.e.*, the network of networks and computers.

FN56. *See generally* Letter from Betsy J. Brady, Vice President, Federal Government Affairs, AT&T, to Magalie Roman Salas, Secretary, FCC (Dec. 18, 2001), ("AT&T Dec. 18, 2001 Ex Parte"), Attachment ("AT&T Broadband Choice Program Status") at 12-16; AOL Time Warner Jan. 22, 2002 Ex Parte at 5.

FN57. "Regional data centers," sometimes referred to in whole or in part as "super headends" or "master headends," are facilities that process, store, and manage data transmitted through cable modem service. Regional data centers are located upstream of headends, in general, and may serve many headends. *See* AT&T Dec. 18, 2001 Ex Parte, Attachment at 11-16; AOL Time Warner Jan. 22, 2002 Ex Parte at 5.

FN58. *See* AT&T Dec. 18, 2001 Ex Parte, Attachment at 9, 12-16; AOL Time Warner Jan. 22, 2002 Ex Parte at 5.

FN59. *See* AT&T Dec. 15, 2000 Ex Parte, Attachment ("AT&T Broadband Choice Trial - Boulder, Colorado"); AOL Time Warner Jan. 22, 2002 Ex Parte at 5.

FN60. *See* AT&T Dec. 15, 2000 Ex Parte, Attachment ("AT&T Broadband Choice Trial - Boulder, Colorado"). Source-based routing allows cable operators to determine and implement routing policies to allow or deny paths based on the identity of the source system, the application being run, the protocol in use, and the size of packets. Source-based routing provides a mechanism to label packets in order to route them to different ISPs. Source-based routing was used in the AT&T Broadband choice (multiple-ISP) trial in Boulder, Colorado, in November 2000. *See id*.

FN61. *See* AOL Time Warner Jan. 22, 2002 Ex Parte at 5. Destination-based routing sends packets of information from the subscriber's PC to the cable network to locations on the Internet based on the best match of the destination address (for each packet) at each router. *See id.*; AT&T Dec. 15, 2000 Ex Parte, Attachment.

FN62. *See generally* 47 C.F.R. § 51.319(g) ("Operations support system functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's (local exchange carrier's) databases and information."); *Application by Bell Atlantic New York for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York*, 15 FCC Rcd 3953, 3989-3990 ¶ 83 ("Incumbent LECs use a variety of systems, databases, and personnel (collectively referred to as OSS) to provide service to their customers.") We recognize that the OSS for the cable multiple-ISP context will differ in certain respects from the incumbent LEC Section 271 context. In both cases, however, the OSS includes or would include the same basic functions of pre-ordering, ordering, provisioning, maintenance, and repair functions associated with allowing unaffiliated entities, *i.e,*, competitive LECs or ISPs, to provide service over the incumbent LEC or cable operator's facil-

ities.

FN63. *See* AT&T Dec. 15, 2000 Ex Parte, Attachment; Excite@Home Aug. 17, 2001 Ex Parte, Attachment (“Multi-ISP Access Technical Landscape”) at 13-23.

FN64. *See* AT&T Dec. 15, 2000 Ex Parte, Attachment.

FN65. *See* AOL Time Warner Jan. 22, 2002 Ex Parte at 5; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 20. In addition to source-based and destination-based routing, other possible routing techniques include Point to Point Protocol over Ethernet (“PPPoE”) and Layer Two Tunneling Protocol (“L2TP”) tunneling. PPPoE and L2TP are tunneling protocols that enable a Point to Point Protocol (“PPP”) session between the subscriber and the specified ISP. A tunnel is a virtual dedicated connection between two points in a network. Tunneling allows data to traverse through an “intervening” network of a different protocol and works by encapsulating data from one protocol format into another protocol format. PPPoE enables PPP to run over bridged networks, and L2TP enables PPP to run over routed networks. *See* Letter from Emy Tseng, MIT, *et al*. to Magalie Roman Salas, Secretary, FCC in CS Docket No. 00-30 (May 1, 2000), Attachment at 16-17.

FN66. For present purposes, we use the term “ISP” to refer to entities as described above in footnote 43, recognizing that some providers may perform services or functions in addition to those indicated. *See, e.g.*, Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 2-6.

FN67. For a general description of cable modem service and its underlying technology, *see* RODERICK W. SMITH, BROADBAND INTERNET CONNECTIONS, Addison-Wesley Pub. (Jan. 2002).

FN68. *See generally* Letter from Marvin S. Rappaport, Vice President Public Policy, Charter Communications, to Magalie Roman Salas, Secretary, FCC (Dec. 12, 2001) (“Charter Dec. 12, 2001 Ex Parte”) *passim*; Cox Aug. 15, 2001 Ex Parte at 4-5. ***See*** *supra* note 54.

FN69. We recognize that not all cable operators include all of these functions in their cable modem service offerings.

FN70. The common term “demarcation point” is used to define that point at which operational control or ownership of communications facilities changes from one organizational entity, *e.g.*, a cable company, to another entity, *e.g.*, an ISP. The demarcation point is used to establish a common point whereby the cable company and an ISP can separate the portion(s) of the network and its functions for which each has responsibility. This demarcation point with regard to cable modem service is usually a point within the headend and could be found on a piece of equipment where the ISP's Internet backbone trunk, *e.g.*, an OC-3, is terminated (on a switch, router or CMTS) in order to receive the hand off or transition from the cable operator's plant to the Internet. In an alternative approach, the cable com-

pany provisions its own backbone to the Internet from the headend. In this case, the demarcation point is where the cable operator's backbone from the CMTS terminates and routes to a gateway switch at an ISP's Point of Presence (“POP”), which connects to the Internet. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 11.

FN71. *See generally* Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 4-6, 12; AT&T Dec. 18, 2001 Ex Parte, Attachment at 11-16.

FN72. “Protocol conversion” is a data communications procedure that permits computers with different protocols or computer languages to communicate with each other. See NEWTON'S TELECOM DICTIONARY 553 (17th ed. 2001).

FN73. *See generally* Cox Aug. 15, 2001 Ex Parte at 15-17. The Dynamic Host Configuration Protocol (“DHCP”) server assigns an IP address to the cable modem so that routers connected to the Internet will recognize the location of the modem for communications to and from the Internet. IP addresses are the locating identification for computers or devices that connect to the Internet or other Transfer Control Protocol / Internet Protocol (“TCP/IP”) network. “Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IPv4 address is a 32-bit numeric address written as four numbers separated by periods. Each number can be from zero to 255. For example, 1.160.10.240 could be an IP address.” *See* Webopedia, *IP Address - Definition*, at http://www.webopedia.com/TERM/I/IP_address.html (visited Jan. 10, 2002).

FN74. *See* Cox Aug. 15, 2001 Ex Parte at 4-5 n.15; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 9, 12, 19. A DNS is an Internet service that enables the translation of domain names into IP addresses. When queried about a domain name, a DNS server provides the querier with the IP address of the domain name or the IP address of another DNS server that may provide the IP address of the domain name if the original DNS server does not how to translate a particular domain name. Thus, in effect, a DNS acts as its own network. *See* Webopedia, *DNS*, at http://www.webopedia.com/TERM/D/DNS.html (visited Feb. 19, 2002). This translation process is necessary because routing of traffic over the Internet is based on IP addresses, not domain names. As a result, before a browser can send a packet to a website, it must obtain the address for the site. *See* Webopedia, *Domain Name*, at http://www.webopedia.com/TERM/D/domain_name.html (visited Jan. 10, 2002). A “domain name” is a “name that identifies one or more IP addresses. For example, the domain name microsoft.com represents about a dozen IP addresses. Domain names are used in URLs to identify particular web pages.” For example, in the URL http://www.fcc.gov, the domain name is fcc.gov. *Id.; see also* 47 U.S.C. § 1127 (“The term ‘domain name’ means any alphanumeric designation which is registered with or assigned by any domain name registrar, domain name registry, or other domain name registration authority as part of an electronic address on the Internet”).

For more information regarding the DNS, *see* J. Postel, *IETF RFC 1591, Domain Name*

*System Structure and Delegation* (Mar. 1994) at http://www.isi.edu/in-notes/rfc1591.txt (visited Feb. 19, 2002). Concerning the importance of the DNS to Internet access service, *see* MCGRAW HILL ENCYCLOPEDIA OF NETWORKING & TELECOMMUNICATIONS 390 ("DNS servers are strategically located on the Internet. There is usually one either directly accessible to your system or accessible over as few as one router hop, ... Most Internet service providers have DNS servers.") (2001); *Werbach Paper* at 30 ("Internet users generally do not need to specify the IP number of the destination site, because IP numbers can be represented by alphanumeric 'domain names' such as 'fcc.gov' or 'ibm.com.' 'Domain name servers' throughout the network contain tables that cross reference these domain names with their underlying IP numbers").

FN75. *See* Cablevision Systems Corp., *Cablevision Optimum Online - Privacy Policy*, at http://www.optimumonline.com/retail/r_generic/1,2994,21,00.html#7 (visited Jan. 10, 2002); Cox Aug. 15, 2001 Ex Parte at 4-5 n.15; AT&T Dec. 15, 2000 Ex Parte, Attachment ("AT&T Broadband Choice Trial - Boulder, Colorado").

FN76. "Caching" is the storing of copies of content at locations in the network closer to subscribers than their original sources, *i.e.,* data from websites, that subscribers wish to see most often in order to provide more rapid retrieval of information. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 11-16; AOL Time Warner Jan. 22, 2002 Ex Parte at 5.

FN77. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 9; Excite@Home Aug. 17, 2001 Ex Parte, Attachment 4-6, 12. Capacity engineering, planning and management, also known as configuration and performance management, refers to the ability to measure, analyze, track, and forecast consumption or use of network assets to meet and maintain Service Level Agreements ("SLAs") of consumers on the network. An SLA is an agreement between a user and a service provider defining the nature of the service provided and establishing a set of metrics to be used to measure the level of service provided measured against the agreed level of service. Such service levels might include provisioning, average availability, restoration times for outages, average and maximum periods of outage, average and maximum response times, latency, and delivery speeds. The SLA also typically establishes trouble reporting procedures, escalation procedures, and penalties for not meeting the level of service demanded - typically refunds to the users. *See* NEWTON'S TELECOM DICTIONARY 616 (17th ed. 2001). Assets include a data line's capacity (bandwidth in bits per second), ports available, and card configurations in switches and routers. Other tasks include design of network topology, sizing of backbone trunks (*e.g.*, OC-3 at 155.52 Megabits per second up to OC-192 at 9.953 Gigabits per second), routing of traffic across the network, documentation of customer network assignments (*e.g.*, device and port number, IP address, and configurations), support for troubleshooting efforts, and study/documentation of usage patterns/trends. *See id*.

FN78. *See generally* Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 4-6, 12;

AT&T Dec. 18, 2001 Ex Parte, Attachment at 9. “Fault management” refers to the ability to detect, isolate and correct conditions that degrade or destroy computer (hardware and software) or network functionality. *See* NEWTON'S TELECOM DICTIONARY 270 (17th ed. 2001).

FN79. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 9; Excite@Home Aug. 17, 2001 Ex Parte, Attachment 4-6, 12.

FN80. “Network Operations Center” is a central place which monitors the status of a corporate network and sends out instructions to repair bits and pieces of the network when they break. In more formal terms, its functions include the monitoring of network status, supervision and coordination of network maintenance, accumulation of accounting and usage data, and user support. *See* NEWTON'S TELECOM DICTIONARY 473 (17th ed. 2001).

FN81. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 9; Excite@Home Aug. 17, 2001 Ex Parte, Attachment 4-6, 12.

FN82. *See, e.g.*, Road Runner, *Residential Service: What is Road Runner?* at http://rrcorp.central.rr.com/hso/whatis.asp and *Residential Service: Features*, at http://rrcorp.central.rr.com/hso/explore_features.asp (describing Road Runner, a high-speed Internet access service) (visited Jan. 10, 2002).

FN83. In general, a “first screen” or “home page” is the screen that comes up first when the user initiates interaction with his or her cable modem service provider or ISP, for example, by clicking on the ISP's desktop icon or accessing the ISP via the World Wide Web. *See FCC AOL Time Warner Order*, 16 FCC Rcd at 6601 ¶ 126 n.360. Typically, a subscriber is able to change the first screen to the web page of his choice, although the cable operator usually provides a default first screen. See Christopher Stern, *Comcast to Open High-Speed Internet Network to Rival ISP*, Washington Post (Feb. 26, 2002) (indicating that Juno and NetZero customers receiving high-speed Internet service from NetZero or Juno on a Comcast cable system will be greeted by a NetZero or Juno web page when they initially launch their service).

FN84. *See supra* note 34.

FN85. *See generally* Cox Aug. 15, 2001 Ex Parte at 4-5; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6, 9; AOL Time Warner Jan. 22, 2002 Ex Parte at 4-5. With the development of the CableLabs®' DOCSIS standard for modem compatibility, commercial sales of cable modems are possible. *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 98-102, Fifth Annual Report, 13 FCC Rcd 24284, 24318-19 (1998). CableLabs® is a non-profit research and development organization created in 1988 by a consortium of cable operators representing North America and South America, purposed to develop new technologies for the cable industry and to serve as a clearinghouse of information regarding technological developments impacting the cable industry. *See*

CableLabs®, *Fact Sheet* at http://www.cablelabs.com/about_cl/factSheet.html (visited Feb. 19, 2002).

FN86. *See generally* Cox Aug. 15, 2001 Ex Parte at 4-5; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 4-6; *Bova Statement of Facts, supra* note 31, at 2-3.

FN87. *See generally* Cox Aug. 15, 2001 Ex Parte at 4-5; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 4-7; *Bova Statement of Facts, supra* note 31, at 2-3; AT&T Dec. 18, 2001 Ex Parte, Attachment at 8.

FN88. *See generally* AT&T Dec. 18, 2001 Ex Parte, Attachment at 8, 10.

FN89. *See Morgan Stanley July 2001 Report*, at 31.

FN90. The At Home Corporation ("@Home") was founded in 1995 by TCI (now AT&T) and venture capital firm Kleiner Perkins Caufield & Byers. In 1996, @Home received equity investments from Comcast Corp. and Cox Communications Inc. Canadian Multiple System Operators ("MSOs") Rogers Cablesystems Ltd., and Shaw Communications, along with Sun Microsystems, also purchased equity stakes in @Home through a private stock placement in April 1997. The company went public in July 1997, and Cablevision Systems Corp. purchased an equity stake in the venture in October 1997 in return for distribution of the @Home service in certain of its systems. At Home Corp., *SEC Filing 10-K for the Year Ended December 31, 2000,* at 4; *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming,* CS Docket No. 97-141, Fourth Annual Report, 13 FCC Rcd 1034, 1066, n.150 (1998).

FN91. Rachel Konrad and Alorie Gilbert, *Book Closes on Excite@Home*, CNET NEWS.COM, Feb 28, 2002, at http://story.news.yahoo.com/news?tmpl=story&u=/ cn/20020301/tc_cn/book_closes_on_excite_home; At Home Corp., *Excite@Home Reduces Workforce as Operations Wind Down: Operations Expected to Cease After February 28, 2002* (press release), Dec. 14, 2001. *See infra* n.121.

FN92. *See* At Home Corp., *SEC Filing 10-K for the Year Ended December 31, 2000*, at 3. TCI, Cox, and Comcast were the original investors in @Home. In 1999, AT&T acquired TCI including all of its cable systems as well as its partnership in @Home. When AT&T acquired MediaOne in 2000, Media One was using Road Runner to provide cable modem service. Following the dissolution of the Road Runner partnership and the bankruptcy of Excite@Home, AT&T moved all Road Runner and @Home subscribers to its own network. *AT&T-TCI Merger Order,* 14 FCC Rcd 3160 ¶ 7; *AT&T-MediaOne Merger Order,* 15 FCC Rcd at 9831 ¶ 28; Time Warner Entertainment Co., LP, *SEC Filing 10-K for the Year Ended December 31, 2000*, at I-4; AT&T Dec. 18, 2001 Ex Parte, Attachment at 5; At Home Corp., *Excite@Home Reduces Workforce as Operations Wind Down: Operations Expected to Cease After February 28, 2002* (press release), Dec. 14, 2001; At Home Corp., *Excite@Home Provides Status of Negotiations with Cable Companies* (press release), Dec. 1, 2001.

FN93. At Home Corp., *SEC Filing 10-K for the Year Ended December 31, 2000*, at 5.

FN94. In 1996, Time Warner Cable and Time Inc. New Media formed The Road Runner Group as a separate business unit to develop and deploy high-speed cable data services. In December 1997, Time Warner and MediaOne (later acquired by AT&T) formed an alliance and merged their cable Internet operations. Time Warner Entertainment Co., LP, *SEC Filing 10-K for the Year Ended December 31, 2000*, at I-3; Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic5.html (visited Jan. 11, 2002); *see Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 98-102, Fifth Annual Report (*"Fifth Annual Video Competition Report"*), 13 FCC Rcd 24284, 24316 ¶ 56 (1998). The Road Runner partnership has dissolved, distributing substantially all of the Road Runner assets to AOL Time Warner, which continues to offer service under the Road Runner brand name. Time Warner, Inc., *Time Warner to Increase Road Runner Ownership and Merge its Operations* (press release), Dec. 18, 2000; Time Warner Entertainment Co., LP, *SEC Filing 10-K for the Year Ended December 31, 2000*, at I-4; AOL Time Warner Jan. 22, 2002 Ex Parte at 1.

FN95. Time Warner Entertainment Co., LP, *SEC Filing 10-K for the Year Ended Dec 31, 2000*, at I-3 and I-4; Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic5.html (visited Jan. 11, 2002); *see also Fifth Annual Video Competition Report*, 13 FCC Rcd at 24316 ¶ 56. Some Time Warner and MediaOne systems were sold to other cable operators which retained the Road Runner service. AT&T, for example, acquired Road Runner subscribers when it acquired cable operator MediaOne. However, AT&T is in the process of transitioning those subscribers to the AT&T network. AT&T Dec 18, 2001 Ex Parte, Attachment at 5. Cox also acquired Road Runner subscribers through the acquisition of certain systems, and is in the process of transitioning those subscribers to Cox's proprietary "Cox High Speed Internet" service. Cox Communications, Inc., *Cox Communications Announces Agreement to Avoid Disruption of Cox@Home Internet Service* (press release), Dec. 3, 2001.

FN96. High Speed Access Corp. ("HSA") was formed in April 1998 through the merger of two cable Internet service providers: HSAnet of Littleton, Colorado and CATV.net of Louisville, Kentucky. In later years, owners included Vulcan Ventures Inc. (48.8%), Microsoft, Cisco, and Lucent. *See* Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http://www.cabledatacomnews.com/cmic/cmic5.Html (visited Jan. 11, 2002); *see also Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, CS Docket No. 98-102, Fifth Annual Report, 13 FCC Rcd 24284, 24316 ¶ 56 (1998).

FN97. High Speed Access Corp., *SEC Filing 10-Q for the Quarter Ended June 30, 2001*, at 6; High Speed Access Corp., *SEC Filing 10-K for the Year Ended December*

*31, 2000*, at 3-5; *see also* ACA Comments at 6-7. Some of the smaller cable operators serviced by HSA included Limestone Cable, Western Shore Cable, Genesis Cable, and Capital Cable. Kinetic Strategies, *Commercial Cable Modem Launches in North America*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic75.html (visited Jan. 11, 2002).

FN98. Charter Communications Corp., *Charter Communications and HSA Close on Purchase Agreement* (press release), Feb. 28, 2002; Charter Communications Corp., *Charter Communications Extends Offer to HSA for Contracts and Associated Assets Serving Charter Customers* (press release), July 31, 2001. HSA Corp has commenced negotiations to exit all of its turn key contracts with cable operators other than Charter. High Speed Access Corp., *SEC Filing 10-Q for the Quarter Ended June 30, 2001*, at 6.

FN99. At Home Corp., *SEC Filing 10-K for the Year Ended Dec. 31, 2000*, at 8; Time Warner Entertainment Co., LP, *SEC Filing 10-K for the Year Ended Dec. 31, 2000*, at I-3 and I-4; *see* AOL Time Warner Jan. 22, 2002 Ex Parte at 1, Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http://www.cabledatacomnews.com/cmic/cmic5.html (visited Jan. 11, 2002).

FN100. At Home Corp., *SEC Filing 10-K for the Year Ended Dec. 31, 2000*, at 8; Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic5.html (visited Jan. 11, 2002); Road Runner, *Company Information: What We Offer* (fact sheet), May 1999.

FN101. At Home Corp., *SEC Filing 10-K for the Year Ended Dec. 31, 2000*, at 8; Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic5.html (visited Jan. 11, 2002).

FN102. *See* At Home Corp., *SEC Filing 10-K for the Year Ended Dec. 31, 2000*, at 3-5; Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http:// www.cabledatacomnews.com/cmic/cmic5.html (visited Jan 11, 2002).

FN103. Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6; Road Runner, *Company Information: What We Offer* (fact sheet), May 1999.

FN104. Cox Comments at 3; Comcast Reply in the *2001 MVPD Competition Report*, at 9; Cablevision Systems Corp., *SEC Filing 10-Q for the Quarter Ended March 31, 2001*, at 3; *Morgan Stanley July 2001 Report*, at 31.

FN105. *See* AT&T Comments at 49; *Morgan Stanley July 2001 Report*, at 31.

FN106. *See* Cablevision Systems Corp., *Optimum Online*, at http:// www.optimumonline.com (visited Jan. 11, 2002); *see also Morgan Stanley July 2001*

*Report*, at 31. Prior to January 2002, Cablevision was providing cable modem service to a limited number of its subscribers through Optimum@Home. Cablevision Systems Corp., *SEC Filing 10-Q for the Quarter Ended March 31, 2001*, at 3; *Morgan Stanley July 2001 Report*, at 31; John Borland, *@Home Pulling Plug on Cable Partners*, CNET NEWS.COM, Jan. 10, 2002, at http://dailynews.yahoo.com/htx/cn/...ling_plug_on_cable_partners_1.html (visited Jan 31, 2002).

FN107. *See* Cox Comments at 3; Adelphia Communications Corp., *SEC Filing 10-K for the Year Ended December 31, 2000*, at 4-5; *see also* http://www.adelphia.com/internet/ (visited Jan. 11, 2002); *see also Morgan Stanley July 2001 Report*, at 31. Cox is in the process of migrating its Excite@Home subscribers to self-operated "Cox High Speed Internet" service. Cox Communications, Inc., *Cox Communications Announces Agreement to Avoid Disruption of Cox@Home Internet Service* (press release), Dec. 3, 2001.

FN108. *See Morgan Stanley July 2001 Report*, at 31; Letter from Emily A. Denney, Cinnamon Mueller, to Magalie Roman Salas, Secretary, FCC, (Nov. 21, 2001) ("ACA Nov. 21, 2001 Ex Parte") at 1-2; *see also* ACA Comments at 6-7; Letter from Matthew M. Polka, American Cable Association, to Anne Levine, Cable Services Bureau, (Feb. 4, 2002) ("ACA Feb. 4, 2002 Ex Parte") at 1-3.

FN109. *See* ACA Comments at 6-7; *see also* Kinetic Strategies, Inc., *Cable Internet Service Providers and Systems Integrators*, CABLE DATACOM NEWS, at http://www.cabledatacomnews.com/cmic/ cmic5.html (visited Jan. 11, 2002).

FN110. The ISP Channel ceased operations at the end of 2000. Jim Wagner, *ISP Channel Closes Doors at Month End*, INTERNETNEWS.COM, Dec. 11, 2000, at http://www.internetnews.com/isp-news/article/0,,8_531531,00.html (visited Jan. 11, 2002). HSA Corp has commenced negotiations to exit all of its turnkey contracts with cable operators other than Charter. High Speed Access Corp., *SEC Filing 10-Q for the Quarter Ended June 30, 2001*, at 6.

FN111. *See* Charter Dec. 12, 2001 Ex Parte at 1; Charter Communications, Inc., *EarthLink and Charter Launch High-Speed Cable Internet Access Joint Service* (press release), Aug. 17, 1998.

FN112. *See, e.g.*, Charter Dec. 12, 2001 Ex Parte at 1 (Charter's cable modem service allows the subscriber "to connect with any portals, web sites or any ISP that authorizes web based access. ... Customers may select any home page, start page or ISP experience including MSN, AOL, and EarthLink without restriction unless imposed by ISPs that do not support web based access."); Cox Aug. 15, 2001 Ex Parte at 5 ("Cox's cable modem service provides subscribers with a variety of enhanced functions including ... access to other ISPs through the web ...").

FN113. *See* Netscape, *Do More Online With Netscape 6.2*, at http://www.netscape.com/computing/download/index.html?cp+hophb2 (visited Jan. 22, 2002).

FN114. *See* Fox News Channel, at http://www.foxnews.com (visited Jan. 18, 2002).

FN115. *See* MSN Hotmail, at http://lc2.law 13.hotmail.passport.com/cgi-bin/login (visited Jan. 18, 2002).

FN116. AOL Time Warner Jan. 22, 2002 Ex Parte at 1; Time Warner Inc., *Time Warner to Increase Road Runner Ownership and Manage its Operations* (press release), Dec. 18, 2000; *FTC AOL Time Warner Merger Order, supra* note 8; Federal Trade Commission Office of Public Affairs, *FTC Approves AOL/Time Warner Merger with Conditions* (press release), Dec. 14, 2000 (describing FTC action); *Joint America Online / Time Warner Statement on Federal Trade Commission's Favorable Vote on Their Merger* (press release), Dec. 14, 2000. Time Warner terminated its exclusive agreement with Road Runner so that Time Warner could offer multiple ISPs on its cable systems, including AOL, earlier than if it had waited for the exclusive agreement to expire by its original terms. Time Warner Inc., *Time Warner to Increase Road Runner Ownership and Manage its Operations* (press release), Dec. 18, 2000.

FN117. AOL Time Warner Jan. 22, 2002 Ex Parte at 1. The three services are: America Online, Road Runner, and EarthLink. AOL Time Warner has also entered into agreements with other national and regional ISPs, which, upon approval by the Federal Trade Commission, will allow AOL Time Warner to offer consumers additional ISP choice in each division. AOL Time Warner Jan. 22, 2002 Ex Parte at 2. On December 21, 2001, the FTC approved agreements with four ISPs: New York Connect.Net, Ltd., Internet Junction Corp., Inter.net US Ltd., and STIC.NET, and on February 26, 2002, the FTC approved agreements with five more ISPs: West Central Ohio LLC, LocalNet Corp., Gloabal Systems, Inc., Big Net Holdings, Inc., and Digital Communications Networks, Inc. Letter from Donald S. Clark, Secretary, Federal Trade Commission, to Robert D. Joffe, Counsel, Cravath, Swaine & Moore, (Dec. 21, 2001) (Approving Motions for Approval of Non-Affiliated ISP and Alternative Cable Broadband ISP Service Agreement in Connection with Four ISPs); Letter from Donald S. Clark, Secretary, Federal Trade Commission, to Robert D. Joffe, Counsel, Cravth, Swaine & Moore, (Feb. 26, 2002) (Approving Motions for Approval of Non-Affiliated ISP and Alternative Cable Broadband ISP Service Agreement in Connection with Five ISPs).

FN118. *See* AOL Time Warner, *Worldwide AOL Membership Surpasses 34 Million* (press release), Mar. 12, 2002. On March 12, 2002, AOL Time Warner announced the rollout of its AOL High-Speed Broadband service in four additional markets. By FTC Order, AOL Time Warner must make available to subscribers at least one unaffiliated ISP on Time Warner's cable systems before AOL itself begins offering service, and must allow two other unaffiliated ISPs onto its cable systems within 90 days after AOL's commencement of service. *FTC AOL Time Warner Merger Order*; Federal Trade Commission Office of Public Affairs, *FTC Approves AOL/Time Warner Merger with Conditions* (press release), Dec. 14, 2000 (describing FTC action); *Joint America Online / Time Warner Statement on Federal Trade Commission's Favorable Vote on Their Merger* (press release), Dec. 14, 2000.

FN119. Comcast Corp., *Comcast and United Online to Offer NetZero and Juno High-Speed Internet Service* (press release), Feb. 26, 2002. The first two markets are Nashville, Tennessee and Indianapolis, Indiana. The agreement also provides a template for a subsequent national rollout of United Online's Internet service to anyone who can get Comcast Cable. *Id*. Comcast has also reached a conditional agreement with Microsoft to provide MSN ISP service on non-discriminatory terms pending conclusion of certain provisions of Comcast's proposed merger with AT&T. Comcast Corp., *SEC Filing PREM14A*, Feb. 11, 2002, at V-20 to V-21; AT&T Comcast Corp., *SEC Filing S-4*, Feb. 11, 2002, (containing Exchange Agreement dated as of Dec. 7, 2001, between Microsoft Corp. and Comcast Corp). Comcast began its ISP choice effort with a proposed trial of multiple ISP service, in which it proposed to offer Juno Express and EarthLink over its cable systems in a trial in the Philadelphia area. That trial did not occur. Comcast Corp., *Comcast and Juno Announce Multiple ISP Trial* (press release), Nov. 29, 2000; *EarthLink, Comcast and EarthLink Announce Technical Trial of High-Speed Cable-Based Internet Service* (press release), Mar. 27, 2001; *see* Comcast Comments at 37-38; *See also* Comcast Reply Comments at 16-17.

FN120. AT&T Broadband, *AT&T Broadband and EarthLink Forge ISP Choice Agreement* (press release), Mar. 12, 2002. AT&T and EarthLink anticipate launching EarthLink's service in additional cities in 2003. *Id*. AT&T was the first MSO to conduct a multiple-ISP trial, which it launched in Boulder, Colorado on November 1, 2000. The first phase of the trial, which concluded on May 1, 2001, was designed to test technical and operational issues, and involved 300 subscribers and four ISPs. AT&T conducted a second phase from June 15 to August 15, 2001 to test billing, customer usage and customer care tools. AT&T had planned to roll out service in the Boston, Massachusetts area in 2001, but its plans were interrupted by ongoing negotiations among the participating ISPs, and the demise of Excite@Home. AT&T later announced that it plans to deploy multiple-ISP service commercially in several major markets by mid-2002. Letter from Joan Marsh, Director, Federal Government Affairs, AT&T, to Magalie Roman Salas, Secretary, FCC (Feb. 28, 2001); *See also* AT&T Comments at 60-64, and AT&T Reply Comments at 11-15; AT&T Dec. 18, 2001 Ex Parte, Attachment at 3 and 4.

FN121. At Home Corp., *Excite@Home Reduces Workforce as Operations Wind Down: Operations Expected to Cease After February 28, 2002* (press release), Dec. 14, 2001; At Home Corp., *Excite@Home Provides Status of Negotiations with Cable Companies* (press release), Dec. 1, 2001.

FN122. Due to Excite@Home's bankruptcy, contracts between AT&T and Excite@Home were terminated on December 1, 2001. AT&T now self-provides all of the equipment and functions necessary to serve its cable modem subscribers. Cox, Comcast, Insight, and Charter all reached an agreement with Excite@Home that allowed them to maintain Internet access service with Excite@Home until February 28, 2002 while they transitioned the subscribers to their own high-speed network. At the time of @Home's bankruptcy, Cablevision Systems Corp. was still providing cable modem ser-

vice under the Optimum@Home brand, though it had already substantially shifted to the self-provisioning model of cable modem service. On January 10, 2002, @Home cut all service to Cablevision's remaining @Home subscribers. AT&T Broadband, *AT&T Moves More Than Half of its Internet Customers to New High-Speed* Network (press release), Dec. 4, 2001; AT&T Dec. 18, 2001 Ex Parte, Attachment at 5; At Home Corp., *Excite@Home Provides Status of Negotiations with Cable Companies* (press release), Dec. 1, 2001; Cox Communications, Inc., *Cox Communications Announces Agreement to Avoid Disruption of Cox@Home Internet Service* (press release), Dec. 3, 2001; Comcast Corp., *Comcast Unveils High-Speed Internet Network Plans; Gains Final Approval For Excite@Home Agreement* (press release), Dec. 11, 2001; Karen Brown, *Insight Girds for Excite@Home Transition*, MULTICHANNEL NEWS ONLINE, Jan. 29, 2002, at http://www.tvinsite.com/index.asp? layout=story&articleId=CA194108&pubdate=01/29/2002&stt=001&display=searchResults (visited Mar. 13, 2002); Cablevision Systems Corp., *SEC Filing 10-Q for the Quarter Ended March 31,* 2001, at 3; John Borland, *@Home Pulling Plug on Cable Partners*, CNET NEWS.COM, Jan. 10, 2002, at http://dailynews.yahoo. com/htx/cn/...ling_plug_on_cable_partners_1.html (visited Jan. 31, 2002); *E@H Fallout: Charter*, CABLEFAX DAILY, Dec. 7, 2002, at 1.

FN123. AT&T Dec. 18, 2001 Ex Parte, Attachment at 3 (“New network designed to optimize open access”), 4 (listing required enhancements, including Service Agent modifications and network “upgrade to include scaleable policy based routing solution”). AT&T has stated that the new network is designed to enable multiple ISP service and that it is capable of doing so on a commercial basis once certain enhancements are added. *Id*.

FN124. Cox Communications, Inc., *Cox Communications and EarthLink Agree to High-Speed Cable-Based Internet Service Trial* (press release), Apr. 24, 2001; Cox Communications, Inc., *Cox, AOL and EarthLink Launch High-Speed Service Trial* (press release), Nov. 6, 2001; *see* Charter Dec. 12, 2001 Ex Parte at 1. Cox's six-month trial is taking place in its El Dorado, Arkansas, system with 50 subscribers. Cox Communications, Inc., *Cox, AOL and EarthLink Launch High-Speed Service Trial* (press release), Nov. 6, 2001.

FN125. AT&T Dec. 18, 2001 Ex Parte, Attachment at 11. While routing techniques are not new technologies, especially with regard to the Internet, they are new to cable operators, as the operators have not used the routing techniques in this fashion before.

FN126. The IP-based data transmission of cable modem service, with a connectionless, “best effort” delivery model, does not guarantee the delivery of packets in any specific order, in a timely manner, or at all. In order to deploy real time applications over IP networks with an acceptable level of quality, certain bandwidth, latency, and jitter requirements, known as Quality of Service (“QoS”), must be guaranteed and met in a fashion that allows multimedia traffic to coexist with traditional data traffic on the same network. Applications such as video stream-

ing, IP telephony, and video-conferencing are extremely bandwidth-and delay-sensitive, imposing unique QoS demands on the underlying network that carry them. *See* NEWTON'S TELECOM DICTIONARY 562 (17th Ed. 2001). QoS guarantees network bandwidth and availability for applications. Any real time media stream that crosses a DOCSIS cable modem-compatible access link needs to be given prioritized traffic management treatment in order to assure the best user-perceived quality end-to-end. DOCSIS 1.1 provides several potential methods for classifying traffic and several access-link traffic management functions, which could be applied to the traffic of unaffiliated ISPs to provide and improve QoS. *See* Glossary - DOCSIS 1.1 at http://www.cablelabs.com/news_room/glossary2.html (visited Dec. 18, 2001).

FN127. *See* AT&T Comments at 54-66; NCTA Comments at 69-76; Excite@Home Aug. 17, 2001 Ex Parte, Attachment; AT&T Dec. 18, 2001 Ex Parte, Attachment at 5, 6, 8, 9, 11-16.

FN128. *Notice*, 15 FCC Rcd at 19293 ¶ 15.

FN129. We do not consider here other Internet-based services that cable operators may offer, such as service on virtual private networks ("VPNs"). VPNs provide the capability to send and receive data between two computers as though they are connected with a dedicated private line (point-to-point link), even though they are using the shared resources of the Internet. Regis Bates and Donald Gregory, VOICE AND DATA COMMUNICATIONS HANDBOOK at 440 (McGraw-Hill 2001). *See also* NEWTON'S TELECOM DICTIONARY 751-52 (17th Ed. 2001).

FN130. *See* Communications Act § 602(6), 47 U.S.C. § 522(6), and Comcast Comments at 16-18.

FN131. *See* Communications Act § 3(20), 47 U.S.C. § 153(20), and SBC/BellSouth Comments at 12-18.

FN132. *See* Cox Comments at 28-30.

FN133. *See* Communications Act § 3(46), 47 U.S.C. § 153(46).

FN134. Verizon Reply Comments at 18-19.

FN135. *See* AT&T Comments at 29-30; Competition Policy Institute Comments at 10. *See also* ACA Comments at 15 ("advanced service"). We note at the outset that no party to this proceeding asserts, and no court has held, that cable modem service as we use that term is a telecommunications service and nothing more. Even the commenters that approach this position acknowledge that the service contains additional elements that go beyond the statutory definition of telecommunications service. *See* Competitive Access Coalition Comments at 10; Matthew P. Lampe Comments ¶¶ 3-4 (citing content); New Hampshire ISP Ass'n Comments ¶¶ 18, 19, 23.3, 24.1 (noting existence of session, presentation, and application, information services and programming services); Verizon Comments at 10-11 (noting content). EarthLink

defines the term "cable modem service" in its Comments to mean "the underlying facilities-based transmission service that is necessary to provide the information service commonly referred to as 'Internet access."' EarthLink Reply Comments at 9. Here, we are defining the term "cable modem service" to mean the complete retail offering that is provided to subscribers. *See infra* para. 38. EarthLink concludes that cable modem service, as it defines that term, is a telecommunications service. EarthLink Reply Comments at 10.

FN136. *Gulf Power*, 122 S. Ct. at 783-84, *citing Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

FN137. Communications Act § 3(46), 47 U.S.C. § 153(46).

FN138. Communications Act § 3(43), 47 U.S.C. § 153(43).

FN139. Communications Act § 3(20), 47 U.S.C. § 153(20). The term "information service" follows from a distinction the Commission drew in the *First, Second, and Third Computer Inquiries* ("*Computer Inquiries*"). *See generally Regulatory and Policy Problems Presented by the Interdependence of Computer and Communications Services and Facilities*, Docket No. 16979, Final Decision and Order, 28 F.C.C. 2d 267 (1971), *aff'd in part sub nom. GTE Service Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, Order, 40 F.C.C. 2d 293 (1973); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)* ("*Computer II Final Decision*"), CC Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980), *on reconsideration*, Memorandum Opinion and Order, 84 F.C.C. 2d 50 (1980) *and* Memorandum Opinion and Order on Further Reconsideration, 88 F.C.C. 2d 512 (1981), *aff'd sub nom. Computer and Commun. Indus. Ass'n v FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry)*, CC Docket No. 85-229, Report and Order, Memorandum Opinion and Order on Further Reconsideration, 104 F.C.C. 2d 958 (1986), *on reconsideration*, Memorandum Opinion and Order on Reconsideration, 2 FCC Rcd 3035 (1987), Memorandum Opinion and Order on Reconsideration, 3 FCC Rcd 1135 (1988) *and* Memorandum Opinion and Order on Further Reconsideration and Second Further Reconsideration, 4 FCC Rcd 5927 (1989), *vacated in part, California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); Report and Order, 2 FCC Rcd 3072 (1987), *on reconsideration*, Memorandum Opinion and Order on Reconsideration, 3 FCC Rcd 1150 (1988), *vacated in part, California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); *Computer III Remand Proceedings*, Report and Order, 5 FCC Rcd 7719 (1990), *on reconsideration*, Memorandum Opinion and Order on Reconsideration, 7 FCC Rcd 909 (1992), *petitions for review denied, California v. FCC*, 4 F.3d 1505 (9th Cir. 1993); *Computer III Remand Proceedings; Bell Operating Company Safeguards and Tier I Local Exchange Company Safeguards*, CC Docket No. 90-623, Report and Order, 6 FCC Rcd 7571 (1991), *vacated in part and remanded, California v. FCC*, 39 F.3d 919 (9th Cir. 1994), *cert. denied*, 514 U.S. 1050 (1995); *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Review - Review of Computer III and ONA Safeguards and Requirements*, CC

Docket Nos. 95-20, 98-10; *Further Notice of Proposed Rulemaking*, Report and Order, 13 FCC Rcd 6040 (1998), Report and Order, 14 FCC Rcd 4289 (1999), *on reconsideration*, Order, 14 FCC Rcd 21628 (1999).

These decisions drew a distinction between bottleneck common carrier facilities and services for the transmission or movement of information on the one hand and, on the other, the use of computer processing applications to act on the content, code, protocol, or other aspects of the subscriber's information. The latter are "enhanced" or information services. This distinction was incorporated into the Modification of Final Judgment ("MFJ"), which governed the Bell Operating Companies after the Bell System Break-Up, and into the 1996 Act. *Universal Service Report* 13 FCC Rcd at 11536 ¶ 75 (1998), citing *United States v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), *and* 714 F. Supp. 1 (D.D.C. 1988), *rev'd in part*, 900 F.2d 283 (D.C. Cir. 1990). The Commission has confirmed that the two terms - enhanced services and information services - should be interpreted to extend to the same functions. *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 ("*Non-Accounting Safeguards Order*"), 11 FCC Rcd 21905, 21955-56 ¶ 102.

FN140. *Universal Service Report*, 13 FCC Rcd at 11530 ¶ 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 consumers.").

FN141. *See id.*, 13 FCC Rcd at 11536 ¶ 73 (1998). The *Universal Service Report* advised Congress about the implementation of certain provisions of the 1996 Act concerning the universal service system. It focused in part on the relationship between universal service and the explosive growth of Internet-based information services. The report specifically reserved the question of the statutory classification of cable modem service. *Id.* at 11535 n.140.

FN142. *See id.*, 13 FCC Rcd at 11537 ¶ 75.

FN143. *See id.*

FN144. *See id.*, 13 FCC Rcd at 11537-39 ¶¶ 76-78.

FN145. For a description of the DNS, *see supra* note 74.

FN146. This is accomplished by the IETF RFC #1035, *Domain Names - Implementation and Specification*, § 3.5 at 21 ("IN-ADDR.ARPA domain") (Nov. 1987). The Commission has previously found that simple reverse directory service constitutes an enhanced or information service. *US West Communications, Inc., Petition for Computer III Waiver*, Order, 11 FCC Rcd 1195, 1199 ¶ 28 (Chief, Common Carrier Bur. 1995) ("The *NATA Centrex Order* concluded that the provision of access to a data base for purposes other than to obtain the information necessary to place a call will gener-

ally be found to be an enhanced service. The presumption regarding such services, therefore, is that they are enhanced unless they are shown to be otherwise.").

FN147. Cox has described some of the functions of the DNS with respect to how it is used in Cox's cable modem service offering. *See Bova Statement of Facts, supra* note 31, at 5 (describing Cox cable modem service as follows: "When subscribers seek to send an e-mail message, the domain name system ('DNS') server ... provides the fully-qualified host name and Internet Protocol ('IP') address of the mail server serving the subscribers."), 6 (same: "The CoxCom cable Internet service provides IP address translation to subscribers as an integral part of the provision of the foregoing services [access to the Internet, content created or aggregated by CoxCom, storage or 'caching' of popular content or information, Internet newsgroups, web hosting services, and electronic mail]. ... CoxCom's cable Internet service stores on its dedicated DNS servers, and allows subscribers to access and use, domain name resolution information, other Internet host information and programming that translates these commonly used domain names into IP addresses to enable routing. ... *Without this service, Internet access would be impractical for most users*." (italics added)).

FN148. Examples of the extensibility of the Domain Name System include the IETF RFC #2915 *The Naming Authority Pointer (NAPTR) DNS Resource Record* (Sept. 2000); and IETF RFC *#2916, E. 164 number and DNS* (Sept. 2000).

FN149. *See* 47 U.S.C. § 231(e)(4) (defining the term "Internet access service" to include various functions); *Universal Service Report*, 13 FCC Rcd at 11537 ¶ 76 ("Internet access providers typically provide their subscribers with the ability to run a variety of applications, including World Wide Web browsers, FTP clients, Usenet newsreaders, electronic mail clients, Telnet applications, and others." (footnotes omitted)).

FN150. *See* Communications Act § 3(20), 47 U.S.C. § 153(20). Information services do not implement "the management, control, or operation of a telecommunications system or the management of a telecommunications service."

FN151. *See* AT&T Comments at 21-23; AT&T Reply Comments at 13-14, 33-39; Cox Aug. 15, 2001 Ex Parte at 4-5 n.15.

FN152. *See* AT&T Dec. 18, 2001 Ex Parte, Attachment at 7 (describing behavior of subscribers to AT&T Broadband as including e-mails, web surfing) 9 ("AT&T Broadband ... Provides DNS ...."); Letter from Emily A. Denney, Esq., of Cinnamon Mueller, counsel for ACA, to Ms. Magalie Roman Salas, Secretary, FCC (Jan. 30, 2001) ("BELD Jan. 30, 2002 Ex Parte") at 1 (describing the cable modem service of the Braintree, Massachusetts, Electric Light Board as follows: "BELD provides its customers information services including email, web hosting, and the BELD homepage, which includes local news, ..."); *Bova Statement of Facts, supra* note 31, at 7 ("Enhanced functions such as ... DNS functions must be performed by Cox-

Com to enable the subscriber to transmit or receive any information using the cable modem platform to or from anywhere. ... The current cable modem architecture requires CoxCom to perform these functions as an integral part of its network." (underlining in original)); Charter Dec. 12, 2001 Ex Parte at 1 ("We have provided at no additional charge web hosting, e-mail, caching, web browser, news server, IP addressing, DNS address translation, ... security and other functions for accessing or using the Internet."); Cox Aug. 15 2001 Ex Parte at 5 ("Cox's cable modem service provides subscribers with a variety of enhanced functions including subscriber browsing and retrieval of files from the World Wide Web, access to other Internet service providers through the Web, use of electronic mail, and access to and interaction with online newsgroups. In addition, ... the Cox cable modem service provides the subscriber with content such as news, .... Cox also provides the subscriber with the ability to customize his or her welcome page ... and the ability to create 'homepages' ....").

FN153. In this regard we note that some cable modem service users may choose not to use the e-mail or webhosting, for example, that is provided with their cable modem service. Nearly every cable modem service subscriber, however, accesses the DNS that is provided as part of the service. *See Bova Statement of Facts, supra* note 31, at 5-7 (listing all the popular applications that use DNS).

FN154. Several commenters, for example, appear to claim that there is within cable modem service, as currently offered to retail subscribers, a distinct "telecommunications service," such as the transmission of data over the cable system between the subscriber and the headend, separate from the web surfing, e-mail, and other functions that comprise cable modem service. *See, e.g.*, ASCENT Comments at 13; OpenNET Comments at 19; WorldCom Comments at 10-11; WorldCom Reply Comments at 12-19. As noted above, *supra* note 135, EarthLink defines the term "cable modem service" in its Comments to mean "the underlying facilities-based transmission service that is necessary to provide the information service commonly referred to as 'Internet access"' and concludes that cable modem service, as EarthLink defines it; is a telecommunications service. EarthLink Reply Comments at 9-10. As we have just found, no such separate and distinct service is being offered now.

FN155. *See* 47 U.S.C. § 153(20).

FN156. *See Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, Order on Remand ("*Non-Accounting Safeguards Remand*"), 16 FCC Rcd 9751, 9770 ¶ 36 (2001).

FN157. *See id.*, 16 FCC Rcd at 9751 ¶ 16, 9758-59 ¶ 32 (stating that some parties' "argument ignores the Act's distinction between 'telecommunications' and 'telecommunications service.' .... [I]nformation service providers as such are not providing 'telecommunications service' under the Act, and thus are not subject to common carrier regulation."), 9769 ¶ 34 (2001).

FN158. *See Non-Accounting Safeguards Remand*, 16 FCC Rcd at 9755 ¶ 8 (stating that the categories of "telecommunications service" and "information service" are "mutually exclusive"); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order ("*Universal Service Order*"), 12 FCC Rcd 8776, 9179-80 ¶¶ 788-90 (1997) (stating that information services are not inherently telecommunications services simply because they are offered via telecommunications).

FN159. *See* Communications Act § 3(46), 47 U.S.C. § 153(46).

FN160. *See Universal Service Report*, 13 FCC Rcd at 11520 ¶ 39. *See also Non-Accounting Safeguards Remand*, 16 FCC Rcd at 9770 ¶ 36.

FN161. *See Universal Service Report*, 13 FCC Rcd at 11534 ¶ 69.

FN162. *See id.*, 13 FCC Rcd at 11521 ¶ 41 (stating that "[w]hen an entity offers subscribers the 'capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications,' it does not *provide* telecommunications; it is *using* telecommunications.") (italics added).

FN163. *See* Letter from John W. Butler, Counsel for EarthLink, Inc., to Kenneth W. Ferree, Chief, Cable Services Bureau, FCC (Nov. 8, 2001), transmitted by letter from John W. Butler, Counsel for EarthLink, Inc., to Magalie Roman Salas, Secretary, FCC (Nov. 8, 2001), ("EarthLink Nov. 8, 2001 Ex Parte") at 9-10.

FN164. *Id.* at 6. *See also supra* note 139.

FN165. EarthLink Nov. 8, 2001 Ex Parte at 2 (stating that it is "quite clear that where an entity uses its own transmission facilities to provide an information service to the public, that entity is required as a condition of being allowed to provide information services to make its transmission facilities available to other information service providers"). *See* EarthLink Reply Comments at 36-38 (concluding that cable operators offer cable modem service indiscriminately to the public).

FN166. EarthLink Nov. 8, 2001 Ex Parte at 3.

FN167. *See, e.g.*, EarthLink Comments at 22-23, 29-30; EarthLink Reply Comments at 31. *See also* WorldCom Comments at 14; WorldCom Reply Comments at 18. The cases these commenters principally rely on are *Non-Accounting Safeguards*, 16 FCC Rcd at 9771 ¶ 38; *Independent Data Commun. Mfgrs. Ass'n, Inc. Petition for Declaratory Ruling That AT&T's InterSpan Frame Relay Service Is a Basic Service; and AT&T Petition for Declaratory Ruling That All IXCs be Subject to the Commission's Decision on the IDCMA Petition*, Memorandum Opinion and Order DA 95-2190 ("*Frame Relay*"), 10 FCC Rcd 13717, 13722 ¶ 40 (Chief, Common Carrier Bur. 1995); and the *Computer Inquiries*, *supra* note 139.

FN168. *See, e.g., Frame Relay, supra* note 167; *Computer Inquiries, supra* note 139. *But see* EarthLink Nov. 8, 2001 Ex Parte at 3 n.2 (asserting that "the fact that AT&T might also have offered the frame relay service separately from the enhanced service was irrelevant to the Commission's separate treatment of the pure transmission component of the bundled service").

FN169. *See, e.g., Frame Relay, supra* note 167. By "wireline," we refer to services provided over the infrastructure of traditional telephone networks.

FN170. 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 F.C.C. 2d at 430-34 ¶¶ 120-29; *see id*. at 431-32 ¶ 123 ("to subject enhanced services to a common carrier scheme of regulation because of the presence of an indiscriminate offering to the public would negate the dynamics of computer technology in this area").

FN171. EarthLink Nov. 8, 2001 Ex Parte at 7-8 (stating that by offering local exchange service over its cable facilities, "Cox has chosen freely to enter into the common carrier telecommunications business .... Having made that choice to be a common carrier, however, both by offering 'pure' transmission and by offering information services over its own facilities, neither Cox nor any other cable company with similar offerings can now avoid the undisputed legal obligations that attach to providers of such services.").

FN172. *Wireline Broadband NPRM, supra* note 12, ¶ 36 (italics added).

FN173. *Id*. at ¶ 22.

FN174. *See* 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972).

FN175. *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

FN176. Cable operators have repeatedly stated that if local governments imposed multiple ISP access requirements, they would delay deployment of cable modem service and other services, apparently including local exchange service. *See, e.g.*, Jason Krause, *AT&T Cable Wins Broadband Case in Portland*, THESTANDARD.COM, June 22, 2000, available at 2000 WL 31589696; Venessa Hua, *Fight Over Open Access; Supervisor Proposes AT&T Share Cable System by End of '01*, SAN FRANCISCO EXAMINER, May 24, 2000, available at 2000 WL 6163923; K. C. Neel and Eric Glick, *GTE Whacks AT&T/Comcast with Lawsuit*, CABLE WORLD, Nov. 1, 1999, available at 1999 WL 28837464; Greg Edwards, *High-Speed Networks Threaten Richmond, Va., Internet Service Providers*, KNIGHT-RIDDER TRIBUNE BUSINESS NEWS: RICHMOND TIMES-DISPATCH - VIRGINIA, Oct. 29, 1999, available at 1999 WL 28703253 (stating that "[i]f they must provide such access, cable companies warn, they will be forced to delay the deployment of Internet, *telephone* and digital television services.") (italics added); Leslie Hillman, *Miami-Area Cable Firms Do Not Have to Open Lines to Rival*

*Companies*, KNIGHT-RIDDER TRIBUNE BUSINESS NEWS: SUN-SENTINEL - FORT LAUDERDALE, FLORIDAAAAA, Oct. 20, 1999; Joe Estrella, *Access Advocates Say See You in St. Louis*, MULTICHANNEL NEWS, Oct. 18, 1999, available at 1999 WL 10010373 (stating that "[s]ome industry followers worried that AT&T will delay a proposed $19 million upgrade in St. Louis, [if multiple ISP access is required] thereby delaying the introduction of cable-modem service to some 55,000 customers. 'They took Portland off the top-10 list, didn't they?' one source said.").

FN177. *See, e.g.*, H.R. Conf. Rep. 104-458, 1996 WL 46795 (Leg.Hist.) at *201 (Jan. 31, 1996) (stating that "in the future, the conferees anticipate that cable companies will be providing local telephone service and the BOCs ('Bell Operating Companies') will be providing cable service").

FN178. *See infra* note 274.

FN179. We note that a companion notice of proposed rulemaking, *Wireline Broadband NPRM, supra* note 12, will address the broader issue of the application of *Computer II* requirements to facilities-based wireline providers of broadband Internet access services.

FN180. *See supra* paras. 20-29.

FN181. AOL Time Warner's recent deployment of a multiple-ISP approach to offering cable modem service is discussed in paragraphs 52-54 below.

FN182. *See Bova Statement of Facts, supra* note 31, at 8 (stating that "[i]n other systems, such as Cox Express systems, CoxCom has no arrangement with At Home and obtains elements necessary to provide Internet services from other parties or supplies them itself."). *See also supra* paras. 21-23.

FN183. AT&T, Cox, Comcast, and Charter have migrated (or are in the process of migrating) all of their former @Home subscribers off of Excite@Home's network to their own networks. *Cable Notes*, WARREN'S CABLE REG. MONITOR, Mar. 11, 2002; AT&T Dec. 18, 2001 Ex Parte, Attachment at 5; AT&T Broadband, *AT&T Broadband Internet Customers Successfully Moved to New High-SP* (press release), Dec. 7, 2001, *available at* http://www.attbroadband.com/ services/other/pressreleases/ 2001_12_01.html (visited Feb. 19, 2002); Cox Communications, Inc., *Cox Communications Announces Agreement to Avoid Disruption of Cox@Home Internet Service* (press release), Dec. 3, 2001, *available at* http://www.cox.com/PressRoom/No . . . Disruption.asp?LocalSys=& LocalSys= (visited Dec. 18, 2001); Comcast Corp., *Comcast Unveils High-Speed Internet Network Plans; Gains Final Approval For Excite@Home Agreement* (press release), Dec. 11, 2001, *available at* http://www.comcast.com/defaultframe. asp? section=press_room&SubSection=pr-cable_news (visited Feb. 19, 2002); Charter Dec. 12, 2001 Ex Parte, at 1.

FN184. *See supra* paras. 21-23.

FN185. *See supra* paras. 21, 24. *See also* ACA Comments at 6-7 (“Many ACA members provide cable modem service through agreements with unaffiliated ISPs. ACA members and companies such as HSA ... have negotiated agreements for unaffiliated ISP access to the cable modem platform in smaller markets.”) (underlining omitted); ACA Feb. 4, 2002 Ex Parte at 2 (although some unaffiliated ISPs with whom ACA members had agreements have folded, “a substantial number of ACA members continue to transact with unaffiliated ISPs”). One cable operator in northern New England, MetroCast, offers cable modem service with many inputs supplied by a regional ISP, Great Works Internet. *See* Metrocast Online, *available at* http://www.metrocastonline.com/ (visited Feb. 1, 2002) and Great Works Internet, *available at* http:// www.gwi.net/ (visited Feb. 1, 2002).

FN186. *See supra* paras. 21-23

FN187. Road Runner, *Company Info, available at* http://www.rr.com/rdrun/ (visited Feb. 20, 2002). *See also supra* para. 21. AOL Time Warner has recently begun providing cable modem service using its affiliated ISP AmericaOnline, as well as a variety of unaffiliated ISPs including EarthLink, which we discuss separately below. *See* AOL Time Warner Jan. 22, 2002 Ex Parte.

FN188. *See* ACA Comments at 6-7; ACA Nov. 21, 2001 Ex Parte;; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6. *See also BELD Broadband, available at* http://www.beld.net (small cable operator's cable modem service first page includes access to ten search engines, including Alta Vista, Excite, Google, HotBot, Infoseek, Lycos, WebCrawler, and Yahoo!) (visited Jan. 29, 2002).

FN189. *See* authorities cited *supra* note 185; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6.

FN190. ACA Nov. 21, 2001 Ex Parte at 1; AOL Time Warner Jan 22, 2002 Ex Parte at 5; *Bova Statement of* Facts, *supra* note 31, at 2-3, 4-6; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6; Road Runner, *Residential Service, Technology, available at* http://www.rr.com/rdrun/ (visited Feb. 20, 2002). Excite@Home operated regional networks that supplied connectivity between the cable headend and the Internet. At Home Corp., *SEC Filing 10-K for the Year-Ended Dec. 31, 2000*, at 8; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6.

FN191. Charter Dec. 12, 2002 Ex Parte. Charter previously contracted with Excite@Home and HSA for connectivity between any given cable system and the Internet backbone, as well as email, web-hosting, and similar functions. *Id*; Excite@Home Aug. 17, 2001 Ex Parte, Attachment at 5-6. As noted above, Cox, Comcast, and AT&T have eliminated their reliance on input providers altogether and have adopted a self-provisioning approach.

FN192. As noted in paragraph 52 below, AOL Time Warner has implemented a multiple ISP business model that differs somewhat from models used by other cable operators. Moreover, as described in paragraph 54 below, if a cable operator's input

function were a pure telecommunications offering, we conclude that, given the cable operator does not hold itself out indiscriminately to serve all ISPs, such offering would be a private carrier service.

FN193. *See supra* text accompanying notes 142-143.

FN194. *See* AOL Time Warner Jan. 22, 2002 Ex Parte at 1-2. AOL Time Warner notes that it adopted a multiple ISP business plan before any obligations were imposed on it by the FTC. *Id*. at 3. Other cable operators have completed or are conducting trials of multiple ISP offerings and appear to be effecting commercial deployment of multiple ISP cable modem service offerings. *See supra* paras. 26, 28. Comcast appears to be in the initial stages of implementing its own access arrangements with unaffiliated ISPs. Comcast, *Comcast and United Online to Offer NetZero and Juno High-Speed Internet Service* (press release), Feb. 26, 2002, *available at* http://www.comcast.com/press_room/viewrelease.asp? pressid=130 (visited Feb. 27, 2002); Exchange Agreement dated as of Dec. 7, 2001, between Microsoft Corp. and Comcast Corp., *available at* http:// www/ sec.gov/Archives/edgar/...0095012302001136/e56461s4ex2-6.txyt (visited Feb. 27, 2001).

FN195. AOL Time Warner Jan. 22, 2002 Ex Parte at 1-3.

FN196. Time Warner Cable has entered into agreements with various national and regional ISPs. *See* AOL Time Warner Jan. 22, 2002 Ex Parte at 2-3; FTC, *Application for Approval of Non-Affiliated ISP and Alternative Cable Broadband ISP Service Agreement* (Dec. 21, 2001), *available at* http:// www.ftc.gov/os/2002/02/index.htm (visited Feb. 19, 2002). The FTC has approved several of these agreements. FTC, *Application for Approval of a Non-Affiliated ISP and Alternative Cable Broadband ISP Service Agreement* Feb. 26, 2002), *available at* http://www.ftc.gov/opa/2002/02/fyi0213.htm (visited Mar. 1, 2002).

FN197. AOL Time Warner Jan. 22, 2002 Ex Parte at 3.

FN198. *Id*.

FN199. *Id*. at 4.

FN200. *Id*.

FN201. *See* NCTA Comments at 48, 50 (predicting in December 2000 that cable operators would, in the future, “enter into commercially reasonable agreements with unaffiliated ISPs”; explaining then-current “coordinated efforts by the cable operator and the [affiliated] Internet service [provider]”).

FN202. *See id*. at 18.

FN203. No commenter claims that AOL Time Warner is providing any telecommunications or information service offering to an ISP.

FN204. *See* AOL Time Warner Jan. 22, 2002 Ex Parte *passim*; authorities cited *infra* note 210.

FN205. The Commission has repeatedly found in various contexts that the definition of "telecommunications service" under the Act is equivalent to "common carrier" service. *See, e.g., Cable & Wireless, PLC*, File No. SCL-96-005, Cable Landing License, 12 FCC Rcd 8516, 8521 ¶13 (1997); *AT&T Submarine Systems, Inc.*, File No. S-C-L-94-006, Memorandum Opinion and Order, 13 FCC Rcd 21585, 21587-88 ¶ 6 (1998), *aff'd*, Virgin Islands Tel. Co. v. FCC, 198 F.3d 921 (D.C. Cir. 1999); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9177-78 ¶ 785 (1997), *aff'd in part, reversed in part, and remanded in part, Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999), *cert. granted*, 530 U.S. 1213 (2000); Declaratory Ruling, 14 FCC Rcd 3040, 3042 ¶ 6 (1999), *remanded on other grounds, State of Iowa v. FCC*, 218 F.3d 756 (D.C. Cir. 2000). Moreover, the D.C. Circuit has held that the FCC's interpretation of "telecommunications service" as common carrier service is reasonable and permissible. *Virgin Islands Tel. Co. v. FCC*, 198 F.3d 921, 926 (D.C. Cir. 1999).

FN206. *See National Ass'n of Reg. Utils. Comm'rs v. FCC*, 525 F.2d 630, 640 (D.C. Cir.), *cert. denied*, 425 U.S. 992 (1976) ("*NARUC I*"); *NARUC v. FCC*, 533 F.2d 601, 608-09 (D.C. Cir. 1976) ("*NARUC II*"); *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994); *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, 21588-89 ¶ ¶ 8-9 (1998), *aff'd, Virgin Islands Tel. Corp. v. FCC*, 198 F.3d 921 (D.C. Cir. 1999); *NORLIGHT Request for Declaratory Ruling*, File No. PRB-LMMD 86-07, Declaratory Ruling, 2 FCC Rcd 132, 133 ¶ 14 (1987). *See also* Cox Comments at 45-46; NCTA Comments at 13-17.

FN207. *NARUC II*, 533 F.2d at 608-09 (quotation marks omitted). *See also* authorities cited *supra* note 206.

FN208. *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 1475, 1481 (D.C. Cir. 1994); *see NARUC I*, 525 F.2d at 641 ("a carrier will not be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal").

FN209. *See supra* paras. 52-54.

FN210. *See* AOL Time Warner Jan. 22, 2002 Ex Parte at 3 (referring to its "individually negotiated affiliation agreements" with ISPs), at 4 (suggesting that AOL Time Warner intends to exercise its discretion in choosing which ISPs participate in its multiple ISP offerings to subscribers: "TWC also believes that this partnering arrangement works best for customers because TWC is putting its reputation on the line with every ISP it sells, both in the case of affiliated ISPs like AOL, and unaffiliated ones like EarthLink."). *See also AOL Time Warner Inc., Texas*

*Networking, Inc., Petition for Declaratory Ruling and Complaint Regarding Violations of Merger Conditions and for Enforcement of Merger Conditions*, CS Docket No. 00-30, AOL Time Warner Response and Opposition at 8 & n.22 (describing part of AOL Time Warner's multiple ISP access activities, specifically a questionnaire for ISPs "to provide [Time Warner Cable] with information to help evaluate the companies which sought to enter into agreements with TWC. It requests basic information touching on matters related to the integrity, consumer acceptability and stability of a business and the people who run it.") (filed Sept. 4, 2001).

FN211. *AT&T v. City of Portland*, 216 F.3d 871 (9th Cir. 2000) ("*Portland*"), *reversing* 43 F. Supp. 2d 1146 (D. Ore. 1999).

FN212. *Id*. at 875.

FN213. *Id*. at 876.

FN214. *Id*. at 878.

FN215. *Id*. at 876 (noting that "Portland premised its open access condition on its position that @Home is a 'cable service' governed by the franchise").

FN216. *Amicus* Brief of Federal Communications Commission, *AT&T Corp. v. City of Portland*, No. 99-35609, United States Court of Appeals for the Ninth Circuit, filed Aug. 16, 1999. *See also Portland*, 216 F.3d at 876 ("We note at the outset that the FCC has declined, both in its regulatory capacity and as amicus curiae, to address the issue before us. Thus, we are not presented with a case involving potential deference to an administrative agency's statutory construction pursuant to the *Chevron* doctrine.").

FN217. *See* Communications Act § 3(46), 47 U.S.C. § 153(46).

FN218. *Non-Accounting Safeguards Remand*, 16 FCC Rcd at 9755 ¶ 8 (stating that the categories of "telecommunications service" and "information service" are "mutually exclusive"); *Universal Service Order*, 12 FCC Rcd at 9179-80 ¶¶ 788-90 (stating that information services are not inherently telecommunications services simply because they are offered via telecommunications).

FN219. We also note that the Ninth Circuit's determination that cable modem service was in part a telecommunications service also recognized that the Commission "has broad authority to forbear" from regulation under § 10 of the Act, 47 U.S.C. § 160. *See Portland*, 216 F.3d at 879. The United States District Court for the Southern District of California has applied the Ninth Circuit's determination that a cable operator providing Internet transmission is providing a telecommunications service and has held that that determination "mandates a deferral to the primary jurisdiction of the FCC on the enforcement of the common carrier obligations of the statute." The District Court referred specifically to the Commission's authority to forbear from regulating telecommunications services in certain circum-

stances. *GTE.Net LLC v. Cox Commun., Inc.*, Case No. 00-CV-2289-J (BEN), Order Granting Motion to Stay and Denying Motion to Dismiss, slip op. at 7-9 (Jan. 29, 2002). Although we do not forbear from Title II regulation (to the extent other jurisdictions seek to apply it) on this record, we do tentatively conclude that such regulation would not be appropriate and that we should forbear from it. *See infra* para. 94.

FN220. *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Intercarrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68*, Order on Remand and Report and Order ("*Intercarrier Compensation Order*") FCC 01-131 ¶ 52 (rel. Apr. 27, 2001), available at 2001 WL 455869, *petition for review pending, WorldCom, Inc. v. FCC*, D.C. Circuit Nos. 01-1218 *et al*.

FN221. *Intercarrier Compensation Order, supra* note 220 at ¶ 52 (footnote omitted). *See also Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523, 543 (8th Cir. 1998) (affirming the jurisdictionally mixed nature of ISP-bound traffic); *GTE ADSL*, 13 FCC Rcd at 22466 ¶ 1 (concluding "that [GTE's ADSL service], which permits Internet Service Providers (ISPs) to provide their end user customers with high-speed access to the Internet, is an interstate service and is properly tariffed at the federal level").

FN222. *See Intercarrier Compensation Order, supra* note 220, at ¶ 14 (noting long-standing rule that "the jurisdictional nature of ISP-bound traffic should be determined, consistent with Commission precedent, by the end points of the communication") (footnote omitted); *GTE ADSL*, 13 FCC Rcd at 22478-79 ¶ 22.

FN223. *See* Communications Act § 2(a); 47 U.S.C. 152(a) (granting the Commission jurisdiction over "all interstate and foreign communication by wire or radio and all interstate and foreign transmission of energy by radio, which originates and/or is received within the United States, and to all persons engaged within the United States in such communication or such transmission of energy by radio, ..."). *See also infra* paras. 75-76 and *California v. FCC*, 39 F.3d 919, 932-33 (9th Cir. 1994), *cert. denied*, 514 U.S. 1050 (1995).

FN224. *See* Communications Act §§ 3(7), 602(6), 47 U.S.C. §§ 153(7) and 522(6).

FN225. 47 U.S.C. §522(6).

FN226. Communications Act § 602(20), 47 U.S.C. §522(20).

FN227. *Id*. § 602(14), 47 U.S.C. §522(14).

FN228. *Id*. § 602(5), 47 U.S.C. § 522(5).

A "cable system" is "a facility, consisting of a set of closed transmission paths and associated ... equipment that is designed to provide cable service which in-

cludes video programming and which is provided to multiple subscribers within a community." *Id*. § 602(7), 47 U.S.C. § 522(7). The Commission has concluded that "the term cable system as used in the Act encompasses only video delivery systems that employ cable, wire, or other physically closed or shielded transmission paths to provide service to subscribers .... Radio services that do not use such closed transmission paths at all ... are therefore not cable systems under the Act." *Definition of a Cable Television System*, MM Docket No. 89-35, Report and Order, 5 FCC Rcd 7638, 7638 ¶ 5 (1990), *remanded in part on other grounds sub nom. Beach Commun., Inc. v. FCC*, 959 F.2d 975 (D.C. Cir.), *further reconsidered on other grounds*, 965 F.2d 1103 (D.C. Cir. 1992), *rev'd*, 508 U.S. 307 (1993). *Cf*. H.R. Conf. Rep. No. 485, 104th Cong. 2d Sess. 113, 114, 116 (1996) ("Joint Explanatory Statement"), *reprinted in* 1996 U.S.C.C.A.N. 124, 125, 127 (using "closed transmission" to refer to a transmission medium when explaining the term "telecommunications"). We disagree with EarthLink's suggestion in its Reply Comments at 20 n.63 that the term "closed transmission paths" in this definition provides guidance in interpreting the "cable service" definition. We find no basis for concluding that the term was intended by Congress to have significance beyond describing the physical facilities of a cable system.

FN229. *See* H.R. Rep. No. 934, 98th Cong. 2d Sess. 22, 27 (1984) ("1984 House Report"), *reprinted in* 1984 U.S.C.C.A.N. 4655, 4659, 4664.

FN230. *See* 1984 House Report at 27, 1984 U.S.C.C.A.N. at 4664.

FN231. 1984 House Report at 41, 1984 U.S.C.C.A.N. at 4678.

FN232. *See* Communications Act § 621(c), 47 U.S.C. § 541(c) ("Any cable system shall not be subject to regulation as a common carrier or utility by reason of providing any cable service."); *id*. § 621(d)(2), 47 U.S.C. § 541(d)(2) ("Nothing in this title [VI] shall be construed to affect the authority of any State to regulate any cable operator to the extent that such operator provides any communication service other than cable service, whether offered on a common carrier or private contract basis."); 1984 House Report at 29, 41, 1984 U.S.C.C.A.N. at 4666, 4678. *See also* Communications Act § 624(a), 47 U.S.C. § 544(a) ("[a]ny franchising authority may not regulate the services, facilities, and equipment provided by a cable operator except to the extent consistent with this title [VI]").

FN233. *See Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58*, CC Docket No. 87-266, Memorandum Opinion and Order on Reconsideration ("*Video Dialtone Reconsideration*"), 7 FCC Rcd 5069, 5071 ¶ 16, 5072 ¶ 18 (1992), *aff'd, National Cable Television Ass'n. v. FCC ("NCTA v. FCC")*, 33 F.3d 66, 73 (D.C. Cir. (1994). *See also Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58*, CC Docket No. 87-266, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, 10 FCC Rcd 244, 290-91 ¶ 97 (1994) (traditional cable operators "select or provide the video programming available to subscribers"); Second Report and Order, Recommendation to

Congress, and Second Further Notice of Proposed Rulemaking (“*Video Dialtone Second Report*”), 7 FCC Rcd 5781, 5817 ¶ 69 (1992) (cable operators select video programming “by owning, exercising editorial control over, or having cognizable financial interests in, video programming” and “by making decisions concerning the price of video program offerings and by bundling, packaging, and creating tiers of video programming”); 1984 House Report at 43, 1984 U.S.C.C.A.N. at 4680 (stating that the options or categories available as cable services would “be created by the cable operator or programming service provider and made generally available to all subscribers” and would be “delineated by the cable operator or the programming service provider”). The 1996 Act amendments to the Communications Act affecting video dialtone did not alter the analysis of “cable service” in the *Video Dialtone* proceeding or in *NCTA v. FCC*.

FN234. *See Video Dialtone Reconsideration*, 7 FCC Rcd at 5071-72; *NCTA v. FCC*, 33 F.3d at 71; *see also Entertainment Connections, Inc.* (“*ECI*”), 13 FCC Rcd 14277, 14303 ¶ 55, 14311 ¶ 73 (1998), *review denied sub nom. City of Chicago v. FCC*, 199 F.3d 424 (7th Cir. 1999), *cert. denied*, 531 U.S. 825 (2000).

FN235. AT&T Comments at 10-11, 14; National League of Cities Comments at 9 n.10. *See* 1984 House Report at 42, 1984 U.S.C.C.A.N. at 4679 (the cable operator need not create the content itself; “the provision of information over a cable system by a channel lessee or by the cable operator through a joint venture or other commercial arrangement would be a cable service if it met all other criteria for being a cable service”). We note that operator control is specifically limited by statute with respect to channels made available for public, educational and governmental access (section 611) and leased access (section 612), and in the conditions governing carriage of the signals of television broadcast stations (sections 614 and 615), 47 U.S.C. §§ 531, 532, 534, 535.

FN236. Internet video, called “streaming video” because data are “streamed” over the Internet to provide continuous motion video, has not yet achieved television quality. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 00-132, Seventh Annual Report, 16 FCC Rcd 6005, 6054 ¶ 107 & n.379 (2001); *see also supra* note 39. Streaming video, therefore, is not consistent with the definition of video programming. Even if streaming video does achieve television quality, it would not be treated as a cable service unless it otherwise falls within the definition of “cable service.”

FN237. *See e.g.*, AT&T Reply Comments at 30; EarthLink Reply Comments at 15. *See generally Internet Ventures*, 15 FCC Rcd 3247 (denying access to a leased channel for Internet access service because the varied array of services comprising the service today are not limited to “video programming,” the only use for which leased channels are available under section 612 of the Act, 47 U.S.C. § 532).

FN238. 47 U.S.C. § 522(14).

FN239. 1984 House Report at 41, 1984 U.S.C.C.A.N. at 4678.

FN240. *See id*. at 41-42, 1984 U.S.C.C.A.N. at 4678-79 ("If information transmitted on a cable system is made available only to an individual subscriber or to a discrete group of subscribers, the transmission of this information is not a cable service.").

FN241. Pub. L. No. 98-549 § 2, 98 Stat. 2779, 2780 (1984) (text of new section 602(5)(B) defining "cable service"); *see* 1984 House Report at 43, 1984 U.S.C.C.A.N. at 4680.

FN242. *See* 1984 House Report at 42, 1984 U.S.C.C.A.N. at 4679 ("In general, services providing subscribers with the capacity to engage in transactions or to store, transform, forward, manipulate, or otherwise process information or data would not be cable services.").

FN243. According to the legislative history, examples of software programs included computer or video games or statistical packages stored off-premises. The transmission and downloading of software programs, video games, and statistical packages to personal computers could be a cable service if the information were made available to all subscribers and not used interactively over the cable system. *Id.* at 42, 1984 U.S.C.C.A.N. at 4679.

FN244. *Id*. at 42-43, 1984 U.S.C.C.A.N. at 4679-80.

FN245. *See Video Dialtone Second Report*, 7 FCC Rcd at 5821 ¶ 75 (addressing the definition of "video programming" in the context of adopting video dialtone rules). Because video programming and non-video information are treated comparably in the statute, the reasoning the Commission applied to "video programming" in *Video Dialtone Second Report* is applicable to non-video information as well.

FN246. *Id*.

FN247. Pub. L. No. 104-104 § 301(a)(1), 110 Stat. 56, 114, 47 U.S.C. § 552(6)(B) (emphasis added).

FN248. *See* Comcast Comments at 17; Cox Aug. 15, 2001 Ex Parte at 7; NCTA Comments at 6; National League of Cities Comments at 9. Others argue that the amendment simply reflects the evolution of two-way video services, game channels, or program guides, but makes no fundamental change to the meaning of "cable service." *See* Texas Office of Public Utility Counsel Reply Comments at 18 ("Congress wanted to accommodate interactivity that might surround one-way video services"); OpenNET Comments at 7-8 (information received by subscribers must be available to all subscribers generally); WorldCom Reply Comments at 30.

FN249. *NCTA v. FCC*, 33 F.3d at 72.

FN250. *See* Communications Act § 602(6)(A), 47 U.S.C. § 522(6)(A).

FN251. *See id*. § 602(14), 47 U.S.C. § 522(14).

FN252. Joint Explanatory Statement at 169, 1996 U.S.C.C.A.N. at 182. The conferees added, "This amendment is not intended to affect Federal or State regulation of telecommunications service offered through cable system facilities, or to cause dial-up access to information services over telephone lines to be classified as a cable service." The House, whose version of the amendment was adopted in conference, had explained the addition of the term "or use" only as "reflecting the evolution of video programming toward interactive services." *Id*. at 167, 1996 U.S.C.C.A.N. at 180. Some commenters also cite Representative Dingell's remarks during the floor debates, which state that "[t]his conference agreement strengthens the ability of local governments to collect fees for the use of public right-of-way. For example, the definition of the term 'cable service' has been expanded to include game channels and other interactive services." *See* National League of Cities Comments at 6-7 (quoting 142 Cong. Rec. H1156 (daily ed. Feb. 1, 1996) (remarks of Rep. Dingell)).

FN253. *See* WorldCom Comments at 10 (disputing that these types of activities are cable service); WorldCom Reply Comments at 28 (arguing that subscriber interaction is the essence of Internet service, not merely ancillary to a one-way service). *See also* EarthLink Reply Comments at 20 n.64 (stating that the AT&T Website Agreement it found at www.att.com/terms shows that AT&T does not control the information available through its cable modem service).

FN254. *See* AT&T Comments at 13; Cox Aug. 15, 2001 Ex Parte at 6-7 (advocating that providing Internet capability satisfies the requirement that the operator make the information generally available).

FN255. *See* NATOA Comments at 8 n.11.

FN256. *See* AT&T Comments at 16 n.22.

FN257. *See id*. at 11.

FN258. *See* Cox Aug. 15, 2001 Ex Parte at 7. Cox and AT&T also argue that cable modem service would be classified as "cable service" under the 1984 definition because on-line computer services were included in the "other programming service" category in the original definition. *Id*. at 6; AT&T Comments at 13. The 1984 House Report describes transmitting and downloading computer software, such as computer games or statistical packages, for use on personal computers as a cable service; on-line interactivity, such as data base searching, fell outside the definition. 1984 House Report at 42-43, 1984 U.S.C.C.A.N. at 4679-80.

FN259. The FCC Local State Government Advisory Committee ("LSGAC") argues that "there is nothing inconsistent about a service being simultaneously a 'cable service' and an 'information service'. In fact--all cable services offered by a cable operator appear to be 'information services' because cable services offer 'the

capability for ... making available information via telecommunications, and includes electronic publishing.”’ LSGAC, Advisory Recommendation No. 26, In the Matter of Inquiry Concerning High Speed Cable Access to the Internet Over Cable and Other Facilities, GN Docket No. 00-185 (Feb. 5, 2002) (“LSGAC Advisory Recommendation No. 26”), at 1-2, transmitted by letter from Kenneth S. Fellman, Chairman, LSGAC, to Magalie Roman Salas, Secretary, FCC (Feb. 5, 2002), transmitted by letter from Elizabeth Jackson for Kenneth S. Fellman to Dr. Emily Hoffnar, FCC (Feb. 5, 2002). Even if there is an overlap between cable services and information services, however, this would not make all information services cable services. As discussed above, offering the capability for making information available does not establish that the operator controls the selection and distribution of the information and that the information is generally available as required for a cable service.

FN260. EarthLink Comments at 11.

FN261. *See* AT&T Comments at 10-11, 14-15; Cox Aug. 15, 2001 Ex Parte at 8 (stating that cable operators offer “a cable modem service that integrates high-speed Internet access, content, information and services”). *Compare* OpenNET Reply Comments at 9-10 (contending that customer using cable modem service does not need proprietary home page) *with* AT&T Reply Comments at 31-32 (stating that it is irrelevant that subscribers can bypass the cable operator's home page as long as the information is made available to subscribers).

FN262. *See* AT&T Comments at 14 (arguing that if any part of cable modem service can be classified as a cable service, the service in its entirety should be classified as a cable service).

FN263. NCTA Reply Comments at 7 (citing 1984 House Report at 44, 1984 U.S.C.C.A.N. at 4681; *Universal Service Report*, 13 FCC Rcd at 11536, 11539 ¶ ¶ 75, 79).

FN264. 1984 House Report at 41, 1984 U.S.C.C.A.N. at 4678; Joint Explanatory Statement at 169, 1996 U.S.C.C.A.N. at 182.

FN265. Internet Tax Freedom Act, Pub. L. No. 105-277, Div. C, Title XI, §§ 1100-1104, 112 Stat. 2681-719 (1998), 47 U.S.C. § 151 note (“Internet Tax Freedom Act”).

FN266. *Id*. § 1101(a)(1).

FN267. *Id*. § 1104(8)(A).

FN268. *Id*. § 1104(8)(B). It also exempts fees for open video systems operating pursuant to Communications Act § 653, 47 U.S.C. § 573, and any other fee related to obligations or telecommunications carriers under the Communications Act. *Id*.

FN269. *See* Los Angeles Comments at 16; National League of Cities Comments at

10-11.

FN270. *United States v. Price*, 361 U.S. 304, 313 (1960).

FN271. National League of Cities Comments at 10.

FN272. AT&T Comments at 29-30. *See also* ACA Comments at 15 ("advanced service").

FN273. *Second 706 Report*, 15 FCC Rcd at 20920 ¶ 11.

FN274. Section 706 of the 1996 Act, *supra* note 14, requires that the "Commission ... encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."

FN275. SBC/BellSouth Comments at 13-24; Communications Act §§ 1, 2(a), 47 U.S.C. §§ 151, 152(a).

FN276. The proceeding initiated by our Notice in GN Docket No. 00-185 is left open only to the extent that the Notice raised issues that are also raised in this notice of proposed rulemaking.

FN277. *See supra* paras. 4-6.

FN278. *Wireline Broadband NPRM, supra* note 12, at ¶ 3.

FN279. *See supra* note 14.

FN280. *See* Communications Act § 230(b)(2), 47 U.S.C. § 230(b)(2).

FN281. *See Wireline Broadband NPRM, supra* note 12, at ¶ 5.

FN282. The Notice stated: "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 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." *Notice*, 15 FCC Rcd at 19299-300 ¶¶ 30-31.

The Notice, in the passage quoted above, assumed that multiple ISP access would involve the ISP purchasing transmission capability from the cable operator. The comments herein and recent experience suggest, however, that multiple ISP access would not necessarily involve a purchase of transmission capability.

FN283. *See, e.g.*, Consumer and ISP Representatives Comments at 3, 11-14; George Mason University, Mercatus Center, Regulatory Studies Program Comments at 4-5; New Hampshire ISP Association Comments at 7.

FN284. *See, e.g.*, AT&T Comments at 82; CIX Comments *passim* (advocating some oversight by the Commission); New Hampshire ISP Association Reply Comments at 2-5.

FN285. *See, e.g.*, Brand X Internet Comments at 3-4; LavaNet Comments at 2.

FN286. *See, e.g.*, Consumer and ISP Representatives Comments at 3, 6-10; Consumers Union *et al*. Comments at 22.

FN287. *See, e.g.*, ASCENT Comments at 13-18; Consumers Union *et al*. Comments at 20-22.

FN288. *See supra* note 8.

FN289. *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968). *See also FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979); *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) (“*Midwest Video*”); *Promotion of Competitive Networks in Local Telecommunications Markets, Wireless Commun. Ass'n Int'l, Inc., Petition to Amend Section 1.4000 of the Commission's Rules*, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report and Order and Memorandum Opinion and Order in CC Docket No. 96-98, and Fourth Report and Order and Memorandum Opinion and Order in CC Docket No. 88-57 (“*Competitive Networks*”), 15 FCC Rcd 22983, 23028-29 ¶ 101 and n.261 (2000).

FN290. *See* Communications Act § 1, 47 U.S.C. § 151.

FN291. *See* Communications Act § 2(a), 47 U.S.C. § 152(a).

FN292. *See* Communications Act § 4(i), 47 U.S.C. § 154(i).

FN293. *Midwest Video*, 440 U.S. at 706.

FN294. *See, e.g.*, *Computer II Final Decision*, 77 FCC2d at 432 (1980), *aff'd*, *Computer and Commun. Indus. Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). *See also Non-Accounting Safeguards Order*, 11 FCC Rcd at 21955 ¶ 102 (1996) (“all of the services that the Commission has previously considered to be ‘enhanced services' are ‘information services”').

FN295. *See, e.g.*, *Competitive Networks*, 15 FCC Rcd at 23029 ¶ 102, 23042 ¶ 134 & n.318 (asserting Title I jurisdiction over customer premises antennas used for

fixed wireless signals); *Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996, Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities*, WT Docket No. 96-198, Report and Order and Further Notice of Inquiry, 16 FCC Rcd 6417, 6457 ¶ 98 (1999) (asserting Title I jurisdiction to regulate information services generally, whether provided by carriers or non-carriers, and to impose disability access rules on the offering of "voicemail and interactive menu services, and related equipment"); *Computer II Final Decision*, 77 FCC2d at 432, 461-86 (asserting Title I jurisdiction over enhanced services and imposing structural separation on AT&T provision of enhanced services).

FN296. *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968); *Southwestern Bell Tel. Co. v. FCC*, 19 F.3d 147 (D.C. Cir. 1994); *NARUC II, supra* note 206.

FN297. *Wireline Broadband NPRM, supra* note 12.

FN298. *See* Communications Act § 1, 47 U.S.C. § 151.

FN299. *See* Communications Act § 230(b) (1, 2), 47 U.S.C. § 230(b) (1, 2) (including "to promote the continued development of the Internet and other interactive computer services and other interactive media" and "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation").

We have relied on § 230 for guidance in making many decisions. *See, e.g., FCC AOL Time Warner Merger Order*, 16 FCC Rcd at 6603 ¶ 128; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in Docket No. 99-68, 14 FCC Rcd 3689, 3693 ¶ 6 (1999); *Access Charge Reform*, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd 15982, 16133 ¶ 344 (1997); Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, 11 FCC Rcd 21354, 21477 ¶ 282 (1996).

FN300. *See* Communications Act § 601(4), 47 U.S.C. § 521(4).

FN301. *See supra* note 14.

FN302. The First Amendment provides that "Congress shall make no law ... abridging the freedom of speech, or of the press ..." U.S. Const. Amend. I. *Compare* Comcast Comments at 26; Cox Comments at 47-50; NCTA Comments at 38-39, NCTA Reply Comments at 3; Verizon Comments at 35-38 *with* Consumers Union Comments at 6-9; NATOA Comments at 18. *See also* David Wolitz, *Open Access and the First Amendment: A Critique of Comcast Cablevision of Broward County, Inc. v. Broward County*, 4 YALE SYMP. L. & TECH 6 (2001) (arguing that the First Amendment does not prohibit multiple ISP access regulations similar to those promulgated by Broward County and litigated in *Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F.

Supp. 2d 685 (S.D. Fla. 2000)); Harold Feld, *Whose Line Is It Anyway? The First Amendment and Cable Open Access*, 8 COMMLAW CONSPECTUS 23 (2000) (arguing that the First Amendment authorizes but does not require the federal government and local franchise authorities to impose multiple ISP access conditions on cable operators).

FN303. *See, e.g.*, *Satellite Broadcasting & Commun. Ass'n v. FCC*, 2001 WL 1557809 (4th Cir., Dec. 7, 2001), *aff'g* 146 F. Supp. 2d 803 (E.D. Va. 2001); *Time Warner Ent. Co. v. FCC*, 240 F.3d 1126 (D.C. Cir. 2001).

FN304. *See Carriage of Digital Television Broadcast Signals, CS Docket No. 98-120, Local Broadcast Signal Carriage Issues, CS Docket No. 00-96, Application of Network Non-Duplication, Syndicated Exclusivity and Sports Blackout Rules to Satellite Transmission of Broadcast Signals, CS Docket No. 00-2*, First Report and Order and Further Notice of Proposed Rule Rulemaking, FCC 01-22 ¶¶ 112-15 (rel. Jan. 23, 2001), available at 2001 WL 69391 (tentatively concluding that the mandatory simultaneous carriage of both a television station's digital and analog signals may burden cable operators' First Amendment interests substantially more than is necessary to further the legitimate interests).

FN305. *See, e.g.*, Charter Reply Comments at 34; Cox Comments at 50-51. The relevant portion of the Fifth Amendment provides: "... nor shall private property be taken for public use, without just compensation." U.S. Const. Amend. V.

FN306. *See supra* paras. 20-29.

FN307. *See supra* para. 26.

FN308. *See supra* note 8.

FN309. Comcast, *Comcast and United Online to Offer NetZero and Juno High-Speed Internet Service* (press release), Feb. 26, 2002.

FN310. AT&T Comcast Corp., SEC Filing S-4, Feb. 11, 2002 (containing Exchange Agreement dated as of Dec. 7, 2001, between Microsoft Corp. and Comcast Corp).

FN311. *See supra* note 120.

FN312. *See supra* note 124.

FN313. Communications Act §§ 651, 653, 47 U.S.C. §§ 571, 573.

FN314. In this context, we refer to "intramodal" competition as competition among providers using the same type of facilities (*e.g.*, incumbent and competitive Local Exchange Carriers ("LECs"), cable operators and overbuilders). "Intermodal" competition is competition among providers using different types of facilities (*e.g.*, LECs and cable operators).

FN315. *See Wireline Broadband NPRM, supra* note 12, at ¶ 6 (“the Commission will strive to develop an analytical framework that is consistent, to the extent possible, across multiple platforms”).

FN316. *See* Adelphia Reply Comments at 7 n.23 (stating that “Adelphia is not aware of a single allegation in the comments that Adelphia, or any other operator, has actually engaged in any activity designed to ‘relegate’ certain sites to the ‘slow’ lane. Indeed, ... the capability to engage in the posited behavior exists in any ISP.”); Comcast Comments at 31 (opining that the “openness that really matters to customers - and what makes the Internet so special and remarkable - is the ability to go anywhere, to access any information with a single click of a mouse. That openness exists with cable Internet today.”); Cox Comments at 19 (stating that “once connected [to the Internet], moreover, [consumers] are able to visit any website and access any information (or ISP) they desire”). The Center for Democracy and Technology, a proponent of multiple ISP access that conducted a large study of the broadband business, concluded only that there was “a *theoretical* but cognizable risk of content censorship in the absence of mandated open access.” Center for Democracy and Technology Comments at 5 (italics added).

FN317. We are struck by the complexity of the proposals for multiple ISP access advocated by some commenters. *See supra* notes 283-287. *See also* AT&T Reply Comments at 17-26; Big Planet Comments at 14; Center for Democracy & Technology Comments at 16-18; Charter Reply Comments at 33-36.

FN318. *See supra* note 29.

FN319. *See supra* note 8.

FN320. *See Wireline Broadband NPRM, supra* note 12, at ¶ 50.

FN321. *See supra* paras. 26-29.

FN322. Adelphia Reply Comments at 10-11 (listing unresolved technical issues in multiple ISP access).

FN323. *See also* AeA Comments at 11 (stating that “agreements, which reflect commercial reality, are preferable to the imposition of a one-size fits all common carrier approach”); Comcast Comments at 38 (noting the uncertainty about how many subscribers will place the greatest value on ease of searching, instant messaging capabilities, vast amounts of proprietary content, backbone capacity, or filtering out offensive content); NCTA Comments at 63-64 (same). *See also Universal Service Report*, 13 FCC Rcd at 11524 ¶ 46, 11540 ¶ 82.

FN324. As previously noted, the FTC and this Commission have separately analyzed the question of whether the AOL Time Warner merger created market conditions warranting intervention applicable to the merged firm. *See supra* note 8.

FN325. Communications Act § 3(46), 47 U.S.C. § 3(46).

FN326. *See supra* paras. 42-43.

FN327. Communications Act § 10, 47 U.S.C. § 160.

FN328. *See supra* note 219.

FN329. *GTE.Net LLC v. Cox Commun., Inc.*, Case No. 00-CV-2289-J (BEN), Order Granting Motion to Stay and Denying Motion to Dismiss, slip. op. at 10 (Jan. 29, 2002).

FN330. Communications Act § 10, 47 U.S.C. § 160.

FN331. *See supra* paras. 38-39.

FN332. *See* authorities cited *supra* note 139.

FN333. *See* Communications Act § 2(a), 47 U.S.C. § 152(a).

FN334. *See* 47 U.S.C. § 157 note, §230(b)(1), (2).

FN335. *See supra* Section IV. B. *See generally* LSGAC Advisory Recommendation No. 26, at 2-3 (Title VI provides local governments with sufficient authority to address competition between affiliated and unaffiliated content providers, play a meaningful role in overseeing the deployment of advanced cable services, and ensure that providers of advanced services address local and specific community needs and interests).

FN336. *See California v. FCC*, 39 F.3d 919, 931-33 (9th Cir. 1994); *Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198, 214-218 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983).

FN337. 47 U.S.C. § 544(b)(1).

FN338. *See* Communications Act §§ 613(d), 617, 47 U.S.C. §§ 533(d), 537. Access conditions imposed by Portland and Multnomah County, Oregon and Henrico County, Virginia were overturned pursuant to section 621(b), 47 U.S.C. § 541(b) as beyond the franchisors' Title VI authority. *See MediaOne Group, Inc. v. County of Henrico ("Henrico County"), 257 F.3d 356, 363-64* (4th Cir. 2001) (access requirement compelling the cable operator to offer the platform separately for the use of unaffiliated ISPs impermissibly required the cable operator to provide telecommunications facilities); *Portland*, 216 F.3d at 877-880 (the transport function of cable modem service was a separate telecommunications service, which could not be addressed pursuant to cable franchising authority conferred by Title VI). A Broward County, Florida ordinance requiring all cable operators offering cable modem service to provide open access was overturned based on First Amendment considerations and was withdrawn in a subsequent settlement agreement. *See Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F. Supp. 2d 685 (S.D. Fla. 2000);

*Broward County Settles Open Access Lawsuit with AT&T, Comcast*, COMMUNICATIONS DAILY, April 17, 2001. In other cases, franchising authorities considering multiple ISP access requirements determined that present and future competition for broadband Internet services obviated the need for a mandatory access requirement. *See supra* note 9. As discussed *supra* para. 26, several cable operators have announced their intentions to accommodate multiple ISPs.

FN339. *See* Communications Act § 253(c), 47 U.S.C. § 253(c) (preserving for State and local governments authority over rights-of-way); Communications Act § 602(7)(B), 47 U.S.C. § 522(7)(B) (excluding from definition of cable system subject to franchising authority a facility that serves subscribers without using any public right-of-way); *TCI Cablevision of Oakland County, Inc.*, Petition for Declaratory Ruling, Preemption and Other Relief Pursuant to 47 U.S.C. §§ 541, 544(e), and 253, CSR-4790, Memorandum Opinion and Order ("*Troy Decision*"), 12 FCC Rcd 21396, 21441-42 (1997), *reconsideration denied*, ("*Troy Reconsideration Order*") 13 FCC Rcd 16400, 16414 ¶ 43 (1998); *Definition of a Cable Television System*, MM Docket No. 89-35, Report and Order, 5 FCC Rcd 7638, 7639 ¶ 10 (1990).

FN340. Communications Act § 601(2)-(3), 47 U.S.C. §521(2)-(3).

FN341. 47 U.S.C. §541(a)(2).

FN342. 47 U.S.C. § 544(b)(1). *See* 1984 House Report at 68, 1984 U.S.C.C.A.N. at 4705.

FN343. 47 U.S.C. § 544(a).

FN344. *Troy Decision*, 12 FCC Rcd at 21429 ¶ 78 (conditions imposed on grant of construction permits for cable system upgrades limiting use of the system for telecommunications services were found to violate § 621(b)(3)(B)).

FN345. *See generally Troy Decision*, 12 FCC Rcd at 21440-41 ¶ 102; *Promotion of Competitive Networks in Local Telecommunications Markets*, 14 FCC Rcd 12673, 12714-15 (1999).

FN346. *See Troy Decision*, 12 FCC Rcd at 21442 ¶ 107.

FN347. Comcast Comments at 41; CCTA Reply Comments at 4-11 (citing to local franchising authority and State government attempts to impose access and other requirements on cable modem service, and expressing concern that some cities will seek to expand their jurisdiction over cable modem service generally and that competitors will leverage the local regulatory process to seek access requirements, or customer service or technical standards underwritten by competitors).

FN348. *See* National League of Cities, et al. Comments at 13 ("the cost ... in lost franchise fees would be staggering"); Marin Comments at 7 ("[t]he failure to classify cable modem service as a cable service will have very adverse financial and

regulatory consequences for public agencies"); New Orleans Comments at 4, 10 (cable modem service is a cable service and cable operators must pay franchise fees on revenues from this service); NATOA Comments at 22 (local authority to manage and receive compensation for access to public rights-of-way is recognized in the Communications Act); NATOA Reply Comments at 33-34 (anticipating consumer complaints regarding cable modem service and noting that the Commission previously expanded the franchise fee revenue base to include pay-per-view programming, leased access, and advertising revenues largely because of franchise authority responsibilities to investigate and resolve complaints about these services).

FN349. 47 U.S.C. § 542(b).

FN350. *See* Internet Tax Freedom Act §§ 1101(a), 1104, 112 Stat. 2681-719, 2681-724-726, 47 U.S.C.A. § 151 note. The Internet Tax Freedom Act imposed a moratorium on the ability of State or local governments to impose new taxes on Internet access. This moratorium has been extended through November 1, 2003. Internet Tax Nondiscrimination Act, Pub. L. No. 107-75, 115 Stat. 703 (2001). Franchise fees imposed pursuant to sections 622 and 653 of the Communications Act, 47 U.S.C. §§ 542, 573, for cable services and open video systems, respectively, and any other fee related to obligations of telecommunications carriers under the Communications Act were not considered to be taxes subject to the moratorium. Internet Tax Freedom Act § 1104(8)(B).

FN351. *See* CCTA Reply Comments at 12-13 ("both operators and franchise authorities find themselves caught in the middle"); Cox Reply Comments at 2 n.4; National League of Cities Reply Comments, Attachment (Letter from Kathi Noe, Director, Government Affairs, AT&T Broadband, to Janet Freeland, Senior Financial Analyst, Real Property Division, City of Palo Alto, Cal. (Dec. 15, 2000)) at 2 ("Suspension of franchise fees on @Home is particularly important in states within the Ninth Circuit, because of the existence of State consumer protection laws which often give rise to class action or other litigation. Such lawsuits might seek a refund of any fees not lawfully collected ...."); *id.* (Letter from Stanford T. Inouye, Area Franchise Manager, AT&T Broadband, to Pam Berrian, Franchise Manager, City of Eugene, Or. (Dec. 13, 2000)) (same).

FN352. *See, e.g.* Cox Reply Comments at 2 & n.4.

FN353. *See* Letter from David E. Mills, Dow, Lohnes & Albertson, Counsel to Cox, to W. Kenneth Ferree, Chief, Cable Services Bureau, FCC (Oct. 16, 2001), referring to pending litigation captioned *Bova v. Cox Communications, Inc.*, Civil Action No. 7:01 CV 00090 (W.D. VA.) (class action seeking recovery of franchise fees collected on cable modem service).

FN354. *Amendment of Parts 1, 63 and 76 of the Commission's Rules to Implement the Provisions of the Cable Communications Policy Act of 1984*, MM Docket No. 84-1296, Memorandum Opinion and Order, 104 FCC 2d 386, 393 ¶¶ 18-19 (1986), *aff'd on this*

*point sub nom. ACLU v. FCC*, 823 F.2d 1554, 1573-75 (D.C. Cir. 1987); *see also Time Warner Entertainment/Advance-Newhouse Partnership and the City of Orlando, Florida*, Petitions for Declaratory Ruling on Franchise Fee Issues, Memorandum Opinion and Order, 14 FCC Rcd 7678 (1999).

FN355. *Henrico County*, 257 F.3d at 365.

FN356. *See* NATOA Comments at 20-21; National League of Cities, et al. Comments at 13-14.

FN357. *See* Communications Act § 632(a), 47 U.S.C. § 552(a).

FN358. *See* 47 U.S.C. § 552(d)(1), (2); *see also* 47 C.F.R. §§ 76.309, 76.1602, 76.1603.

FN359. Communications Act § 224, 47 U.S.C. § 224.

FN360. *Gulf Power*, 112 S.Ct. at 786, 787-88, 789.

FN361. *Id*. at 787-88. *See* 47 U.S.C. § 224(d), (e).

FN362. *See Implementation of Section 703(e) of the Telecommunications Act of 1996, Amendment of the Commission's Rules and Policies Governing Pole Attachments*, CS Docket No. 97-151, Report and Order (*"Pole Attachment Order "*), 13 FCC Rcd 6777, 6794-96 ¶¶ 32, 34 (1998).

FN363. 47 U.S.C. §254(d).

FN364. *See, e.g.*, Comcast Comments at 42-43; SBC/BellSouth Comments at 37, Reply Comments at 22-23; OPATSCO Comments at 2-4; Texas Office of Public Utility Counsel Comments at 21; USTA Comments at 23-24; VoiceStream Reply at 1, 14-17; *see also* USTA Petition for Declaratory Ruling on Universal Service Contribution Obligations of Cable Operators that Provide Telecommunications Service (GN Docket No. 00-185, filed Sept. 26, 2000).

FN365. If a cable operator were to be also classified as a telecommunications carrier because it provides a separate telecommunications service, universal service contribution obligations would be mandatory under section 254(d) of the Communications Act. 47 U.S.C. § 254(d). Section 254(d) also provides the Commission with the discretion, if the public interest so requires, to impose universal service contribution obligations on "any provider of interstate telecommunications" (as distinguished from telecommunications *service*). 47 U.S.C. § 254(d).

FN366. *See Wireline Broadband NPRM*, FCC 02-42, ¶¶ 79-80.

FN367. A "cable operator" is defined for purposes of section 631 to include "any person who (i) is owned or controlled by, or under common ownership or control with, a cable operator, and (ii) provides any wire or radio communications ser-

vice" as well as persons within the definition in section 602.47 U.S.C. § 551(a)(2)(C) (citing 47 U.S.C. § 522(5)). The Commission has interpreted this section to encompass cable operators and their affiliates that provide any wire or radio communications service. *See FCC AOL Time Warner Merger Order*, 16 FCC Rcd at 6665 ¶ 279.

FN368. 47 U.S.C. § 551. Subsection (a)(2)(B) defines "other service."

FN369. *See Application of the United States of America for an Order Pursuant to 18 U.S.C. § 2703(D) ("Application of the United States")*, 157 F. Supp. 2d 286, 291 (S.D.N.Y. 2001).

FN370. 47 U.S.C. § 551(a), (b), (c). The provisions in subsection (h), regarding the standard of proof for a court order and giving the subject an opportunity to appear and contest the claims made to support a court order, have been found to be inapplicable to "other service." *See Application of the United States*, 157 F. Supp. 2d at 291 (citing 47 U.S.C. § 551(a)(2) (defining "other service" for purposes other than section (h)). An exception to the restriction on disclosure added by the USA Patriot Act permits an operator to disclose personally identifiable information to a government entity as authorized under certain provisions of title 18 of the United States Code, other than records regarding the subscriber's selection of video programming. *See* Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 ("USA Patriot Act"), Pub. L. No. 107-56, Title II, § 211, 115 Stat. 283 (2001), 47 U.S.C. § 551(c)(2)(D).

FN371. 47 U.S.C. § 551(g). *See* National League of Cities, et al Comments at 15 (arguing that the privacy provisions of § 631 can and should apply to cable modem service).

FN372. *See* 47 U.S.C. § 551(f) (providing that any person aggrieved by the section may bring a civil action in a United States district court).

FN373. As a condition for its approval of the AOL Time Warner merger, the Commission required AOL Time Warner to certify periodically that AOL Time Warner is and will remain in compliance with section 631. *FCC AOL Time Warner Merger Order*, 16 FCC Rcd at 6665 ¶ 279.

FN374. *See* 5 U.S.C. § 603. The RFA, 5 U.S.C. § 601 *et. seq.*, has been amended by the *Small Business Regulatory Enforcement Fairness Act of 1996* ("SBREFA"), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

FN375. *See* 5 U.S.C. § 603(a).

FN376. *Id.*

FN377. Cable modem service refers to the provision of high-speed Internet access

service over cable system facilities. *See supra* para. 1.

FN378. 5 U.S.C. § 603(b)(3).

FN379. *Id*. § 601(6).

FN380. *Id*. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

FN381. 15 U.S.C. § 632.

FN382. 13 C.F.R. § 121.201, North American Industry Classification System ("NAICS") code 513220.

FN383. *See U.S. Department of Commerce, Bureau of the Census, 1992 Economic Census Industry and Enterprise Receipts Size Report*, Table 2D (U.S. Bureau of the Census data under contract to the Office of Advocacy of the U.S. Small Business Administration). These data have been updated for 1997, but without the small business breakout. *See* Summary, 1997 Economic Census, Subject Series: Information, at 24 (issued April 2001). By 1997, the census total for firms in this category had increased to 4,185. *Id*.

FN384. 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determinations that a small cable company is one with annual revenues of $100 million or less. *See Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation*, MM Doc. Nos. 92-266 and 93-215, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408-7409 ¶¶ 28-30 (1995).

FN385. Paul Kagan Assocs., Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

FN386. 47 U.S.C. § 543(m)(2).

FN387. *See FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (2001).

FN388. 47 C.F.R. § 76.1403(b).

FN389. *See FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (2001).

FN390. We do receive such information on a case-by-case basis only if a cable op-

erator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules. See 47 C.F.R. § 76.990(b).

FN391. *See* 47 U.S.C. § 573.

FN392. 13 C.F.R. § 121.201, NAICS Codes 51321 and 51322.

FN393. *Id*.

FN394. *See* Federal Communications Commission, *Filings for Certification of Open Video Systems*, at http://www.fcc.gov/csb/ovs/csovscer.html (visited Jan. 8, 2002).

FN395. 47 U.S.C. § 153(20).

FN396. *See* ACA Comments at 15-18.

FN397. 47 C.F.R. §§ 1.415 and 1.419.

FN398. See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

FN399. *See FCC Announces a New Filing Location for Paper Documents and a New Fax Number for General Correspondence*, Public Notice, DA 01-2919 (rel. Dec. 14, 2001).

FN400. 47 C.F.R. § 1.1206(b).

FN401. *See id*. § 1.1206(b)(2).

***4861 APPENDIX**

**LIST OF COMMENTERS**

INITIAL COMMENTS
AeA

Alliance for Public Technology

American Cable Association (“ACA”)

Association for Maximum Service Television, Inc. (“MST”)

Association of Communications Enterprises (“ASCENT”)*

Association of America's Public Television Stations (“APTS”)

AT&T Corporation (“AT&T”)

Big Planet Inc. (“Big Planet”)

Cable & Wireless

Cablevision Systems Corporation (“Cablevision”)

Cellular Telecommunications Industry Association (“CTIA”)

Center for Democracy & Technology

CenturyTel, Inc. (“CenturyTel”)

Charter Communications (“Charter”)

Circuit City Stores, Inc. (“Circuit City”)

Citizens for a Sound Economy

City of Los Angeles (“Los Angeles”)

City of New Orleans (“New Orleans”)

Comcast Corporation (“Comcast”)

Commercial Internet Exchange Association (“CIX”)

Communications Workers of America

Competition Policy Institute

Competitive Access Coalition

Competitive Telecommunications Association (“CompTel”)
Consumer and ISP Representatives (including: National Association of Towns and Townships, Citizen Power, Inc., the Utilities Commission, New Smyrna Beach, Fl., Amigo.net and NorthNet)
Consumers Union, Consumer Federation of America, Center for Media Education and Media Access Project (“CU”)

Cox Communications (“Cox”)

EarthLink, Inc (“EarthLink”)

EchoStar Satellite Corporation (“EchoStar”)

Excite@Home (“Excite”)

Gemini Networks, Inc. (“Gemini”)

Heartland Institute (“Heartland”)

Information Technology Industry Council

Lampe, Matthew (“Lampe”)

Marin Telecommunications Agency (“Marin”)

Menard, Francois D. (“Menard”)

Mercatus Center (“Mercatus”)

Metricom, Inc. (“Metricom”)

Millenium Media, Inc. (“Millenium”)

National Association of Telecommunications Officers & Advisors (“NATOA”)

National Cable Television Association (“NCTA”)

National League of Cities, et al.

NetCompete Now

***4862** New Hampshire ISP Association

Newspaper Association of America

OpenNET Coalition (“OpenNET”)
Organization for the Promotion and Advancement of Small Telecommunications Companies (“OPASTCO”)

Qwest Communications International, Inc. (“Qwest”)

Pegasus Communications Corp. (“Pegasus”)

Progress & Freedom Foundation

RCN Telecom Services, Inc. (“RCN”)

SBC Communications Inc. & BellSouth Corporation (“SBC/BellSouth”)

SBCA and the SIA Satellite Broadband & Internet Division (“SBCA”)

StarBand Communications (“StarBand”)

Telecommunications Industry Association (“TIA”)

Texas Office of Public Utility Counsel

Towns of East Hampton and Southampton, NY

United States Internet Industry Association & iAdvance (“USIIA”)

United States Telecom Association (“USTA”)

Utilicom Networks, Inc. (“Utilicom”)

Verizon Communications (“Verizon”)

WorldCom, Inc. (“WorldCom”)

*Late Filed

REPLY COMMENTS

AARP

Adelphia Communications Corp. (“Adelphia”)

Alliance for Community Media

Alliance for Public Technology

American Automobile Association (“AAA”)

American Cable Association (“ACA”)

AT&T Corp. (“AT&T”)

Cable & Communications Corporation

California Cable Television Association (“CCTA”)

Center for Democracy and Technology*

Charter Communications (“Charter”)

City and County of San Francisco (“San Francisco”)

Comcast Corporation (“Comcast”)

Commercial Internet Exchange (“CIX”)

Competitive Access Coalition

Competitive Telecommunications Association (“CompTel”)

Cox Communications (“Cox”)

High Speed Access Corp. (“HSA”)
Hughes Network Systems, Hughes Communications, Inc. & Hughes Communications Galaxy, Inc. (“Hughes”)

IbssNet Internet Service*

Insight Communications Company (“Insight”)

Mediacom Communications Corp. (“Mediacom”)*

Menard, Francois D. (“Menard”)

National Association of Broadcasters (“NAB”)

National Association of Telecommunications Officers & Advisors (“NATOA”)

***4863** National Association of Towns and Townships

National Cable Television Association (“NCTA”)

National League of Cities, Texas Coalition of Cities & Cities of Palo Alto & Eugene (“National League of Cities”)

New Hampshire ISP Association

OpenNet Coalition (“OpenNET”)

SBC Communications, Inc. & BellSouth Corp. (“SBC/BellSouth”)

“Small ISPs” (Listed Below)

Speta, Professor James B. (“Speta”)

StarBand Communications (“Starband”)

State of California & the Public Utilities Commission*
Texas Office of Public Utility Counsel, Consumer Federation of America and Consumers Union*

Time Warner Cable (“Time Warner”)

United States Telecom Association (“USTA”)

Utilicom Networks LLC (“Utilicom”)

Verizon Communications (“Verizon”)

Voicestream Wireless (“Voicestream”)

WorldCom Inc. (“WorldCom”)

*Late Filed

Filings by Small ISPs
A+Net Internet

Advanced Computer & Communication Systems (“ACCS”)

APK Net, Inc.

Association for Competitive Technology

Brand X Internet

Carolina Online

ColusaNET

Computer Office Solutions, Inc. (“COS”)

DataFoundry.net

Fast Q.com

FlareNet, Inc.

Fiberhood Networks

Grapevine Internet Services

Hamptons Online

Hurricane Internet

IConnectDirect.com

Illuminati Online

Infobahn Outfitters

In4Web.com

Infinetivity

Instant Internet Corporation

HMC Ltd, Inc.

LavaNet Inc.

Naisp.net

Netalliance, Inc.

Networld Online

On-Ramp Indiana

***4864** Peak Internet

PCEZ.com

PortOne Internet

Questar Information Systems

RICA.Net

Safe Access

711.Net

SmartGate Corporation

StarGate

StarLinx

Sterling Communications

Sunrise Internet Services

Supernova Systems

Texas Communications

Texas.Net

Total Logic Systems

WestPA.net

Worldnet Communications

EX PARTE FILINGS

Adelphia Communications

Allegiance Telecom

Allen, Timothy

American Cable Association

AOL Time Warner Inc.

AT&T Corporation

ATX Technologies, Inc.

BELD Broadband

California Cable Television Association

California Public Utilities Commission

Cellular Telecommunications & Internet Association

Charter Communications

Chester Communications

City of Boston Law Department

City of Los Angeles

Comcast Corporation

Competitive Telecommunications Association

Consumers Union, et al.

Cox Communications, Inc.

Donahue, Hugh Carter; Ferrigno-Stack, Josephine; O'Donnell, Shawn

EarthLink, Inc.

Excite@Home Corporation

FCC LSGAC

Focal

Grande Communications

Heins, Stephen A.

Ilyin, Sergey

Insight Communications

Media Access Project

National Association of Telecommunications Officers & Advisors

***4865** National Cable & Telecommunications Association

OpenNet Coalition

Qwest Communications International, Inc.

SBC Telecommunications, Inc.

State of California Public Utility Commission

US Internet Industry Association

United States Telecom Association

Worldcom

***4866 SEPARATE STATEMENT OF CHAIRMAN MICHAEL K. POWELL**

*Re: Inquiry Concerning High-Speed Access on 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 00-185.*

**I. Introduction**

One might ask what is in a name? In the law, a great deal. When Congress crafts legislation it defines the rights, responsibilities and obligations by reference to particular definitions or classifications. In the multifaceted world of communications it has defined the rights and obligations differently, depending on the nature of the service offered without regard to the means in which it is offered.

Thus, the Commission has an inescapable duty to determine the will of Congress by faithfully applying these definitions to new services. This is not an easy task, given all communication services have some similar and overlapping features.

**II. There Are Three Statutory Classifications**

For our purposes, there are three essential regulatory definitions under the statute, each having different regulatory consequences: "Telecommunications service" is defined in 47 U.S.C. § 153(46). "Cable service" is defined in Section 602(6). And "information service" is defined in the United States Code in Section 153(20).

If one looks throughout the statute, one will see clearly that Congress ascribed different regulatory treatment to these classifications - sometimes more regulatory oversight, sometimes less. For example, a cable service provider cannot be regulated as a common carrier pursuant to the statute.[FN1] Yet, as a consequence of the statute, a telecommunications service provider is regulated as a common carrier. Most importantly, "information service" is a conscious regulatory classification under the statute. Not only is it defined, there are specific references to it throughout the statute.

For example, the Commission under its discretion can extend universal service obligations to providers that *use* telecommunications who are *not* telecommunications carriers (who must contribute to universal service). This indicates Congress recognized classes of services, other than telecommunications service that may have to be reached by Commission discretion, rather than mandatory application under the statute. Similarly, the schools and libraries provisions make specific reference to information services as being covered by the provision, entitling schools and libraries to discounted service. Or, one can look at the network sharing pro-

vision of Section 259 and see specific reference to information service as well as telecommunication services.

***4867 III. The Classification Is Not An Exercise In Regulatory Free Will**

The Commission does not have unconstrained discretion to pick its preferred definition or classification, as some imply. The Commission must attempt to faithfully apply the statutory definition to a service, based on the nature of the service, including the technology used and its capabilities, and the nature of the interactive experience for the consumer. This "is complex and subject to considerable debate and ... appropriately left to the expertise of the FCC."[FN2]

The Commission is not permitted to look at the consequences of different definitions and then choose the label that comports with its preferred regulatory treatment. That would be contrary to law. The Commission must apply the definition and then accept the regulatory regime that adheres to that classification and that which Congress chose when it adopted the statute.

**IV. Commission Is Not Neutered By This Classification**

The Commission is not left powerless to protect the public interest by classifying cable modem service as an information service. Congress invested the Commission with ample authority under Title I. That provision has been invoked consistently by the Commission to guard against public interest harms and anti-competitive results.

It was this Commission that promulgated *Computer I, Computer II and, Computer III,* (all under Title I) in an effort to protect against public interest harms, all with the blessing of judicial review and court sanction of its ancillary authority. Additionally, Title VI is a direct progeny of the Commission's assertion of jurisdiction over cable services under its Title I authority and has regulated cable extensively for a number of years under that authority. This exercise, too, was approved by the Supreme Court as within the congressional scheme.[FN3]

There is no basis to conclude that Title I is inadequate to strike the right regulatory balance. The Commission's willingness to ask searching questions about competitive access, universal service and other important policy issues demonstrates its commitment to explore, evaluate and make responsible judgments about the regulatory framework.

FN1. *See* Communications Act § 621 (c), 47 U.S.C. § 541 (c)

FN2. *MediaOne Group, Inc. v. County of Henrico,* 257 F. 3d 356 (4th Cir. 2001).

FN3. *United States v. Southwestern Cable Co.,* 392 U.S. 157 (1968).

***4868 SEPARATE STATEMENT OF COMMISSIONER KATHLEEN Q. ABERNATHY**

*Re: Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Fa-*

*cilities; Internet Over Cable Declaratory Ruling Proceeding; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket 00-185.

The declaratory ruling we adopt today provides the long-awaited answer to a pivotal question: What is the appropriate regulatory classification of cable modem service? I am pleased that this item will end the regulatory uncertainty that has led to divergent interpretations of the Act by the courts of appeals and that may well have hampered the deployment of cable modem facilities and the introduction of these services to consumers. I commend the Cable Services Bureau and my fellow commissioners for developing an analytical framework that not only represents the best reading of the Act but also serves important public policy objectives. Classifying cable modem service as an information service will promote our goal of fostering a "minimal regulatory environment that promotes investment and innovation in a competitive market."[FN1] It also provides the opportunity to create a more consistent regulatory framework across technological platforms.

As we have done in the *Wireline Broadband NPRM*, I believe it is important to seek comment on the appropriateness of wholesale access obligations. It may turn out that marketplace developments concerning multiple ISP access will make regulatory intervention unnecessary. Most of the factors that cable operators had formerly cited as impediments to offering consumers a choice of ISPs -exclusive contracts with affiliated ISPs and technical feasibility concerns, for example - appear to have been resolved. Accordingly, in addition to AOL Time Warner, which offers a choice of ISPs pursuant to merger conditions imposed by the Federal Trade Commission, Comcast and AT&T Broadband have announced agreements under which they will provide consumers with a choice of ISPs, and Cox is conducting technical trials. I also hope that the declaratory ruling we adopt today will provide a blueprint for cable operators that seek to negotiate additional access arrangements with independent ISPs. By establishing that cable operators may enter into access arrangements with independent ISPs on a private carriage basis, our ruling makes clear that cable operators can provide choice without necessarily subjecting themselves to common carrier regulation.

Overall, however, while these marketplace developments and our clarification of the legal regime provide a basis for optimism, I remain concerned that some cable operators may continue to offer consumers only a single brand of ISP service or that cable operators generally may offer only two or three options. As the owners of the nation's most extensive broadband architecture and as the leading providers of broadband service, cable operators have the potential to suppress competition. I believe that the Commission should not yet dismiss proposals to impose some kind of access requirement without better evidence that robust competition among broadband ISPs will develop on its own.

The interrelation of this proceeding and the *Wireline Broadband NPRM* is a critical part of my decision to seek further comment on whether to impose an access obliga-

tion on providers of cable modem service. Cable modem and DSL providers appear to be competing in a converged broadband marketplace, yet DSL providers alone are subject to a series of unbundling and nondiscrimination requirements under *Computer II/III*. I therefore believe that it would be inappropriate for the Commission not even to *consider* imposing access obligations on cable operators. I recognize that there are substantial differences in the historical treatment of wireline common carriers and cable operators, and that it may not be appropriate or even within our statutory authority to seek complete parity in our regulatory ***4869** treatment of broadband services provided over the wireline and cable platforms.[FN2] Nevertheless, we are faced with a single overarching question with respect to each service: What is the appropriate role for the Commission in ensuring that consumers receive the benefits of competition and choice? If the Commission decides to maintain some form of access obligation at the conclusion of the *Wireline Broadband* proceeding, we would need to develop a compelling rationale if we were to refrain from imposing an analogous requirement on cable operators.

Finally, I am pleased that the Commission has decided to tackle the challenging questions relating to state and local jurisdiction over cable modem services. We must balance the legitimate role of local franchising authorities in managing rights-of-way against the risk that excessive regulation will hamper efforts by cable operators to upgrade plant and roll out new broadband services. I believe that our state and local colleagues have no desire to erect regulatory barriers that would thwart our efforts to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[FN3] I look forward to working closely with local franchising authorities and their representative associations so that we can cooperatively establish appropriate guidelines for right-of-way management.

FN1. *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 ¶¶ 5-6 (rel. Feb. 15, 2002) ("*Wireline Broadband NPRM*").

FN2. I encourage commenters to provide detailed arguments on our statutory authority to impose a cable access requirement, including in particular the provisions of the Act that might support our exercise of ancillary authority under section 4(i). I note that, while the Commission relied on that provision in adopting the *Computer Inquiry* requirements, there may be a greater nexus between those requirements and the provisions of Title II than exists between a cable access requirement and other affirmative grants of authority.

FN3. Telecommunications Act of 1996, § 706, 47 U.S.C. § 157 note.

***4870 DISSENTING STATEMENT OF COMMISSIONER MICHAEL J. COPPS**

*In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable*

*and Other Facilities*

*Internet Over Cable Declaratory Order Proceeding Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, GN Docket 00-185*

****39** Just one month ago, the Commission adopted a Notice of Proposed Rulemaking regarding the classification of broadband services delivered by wireline providers ("*Wireline Broadband NPRM*"). I dissented from that Notice and expressed concern that some might read that *Notice* and conclude that the Commission had a predetermined agenda to deregulate dominant providers in the market. The spate of newspaper stories and magazine articles in the intervening month bears out the concern that I expressed. Many analysts and observers have concluded exactly that. Today, I am afraid the Commission reinforces these conclusions. After just four weeks, and before comments have even been received in the *Wireline Broadband* proceeding, we embark on a very similar path for cable modem services, only this time we leapfrog from a generalized Notice of Inquiry to an extraordinarily far-reaching Declaratory Ruling.

I cannot support either the timing of the Declaratory Ruling or its conclusions, which create dangerous uncertainty in the growing market for cable broadband services. I sympathize with the concerns of cable system operators, local franchising authorities, and others about the lack of regulatory clarity in this area. But this Declaratory Ruling does not provide the certainty sought by these entities, instead placing cable modem services into the regulatory uncertainty of Title I.

The decision the Commission will make today strays far afield from the regulatory construct established by Congress. Congress provided statutory frameworks for cable and for telecommunications carriers under Title VI and Title II, respectively. The statute makes clear that, to the extent that a cable operator serves as a common carrier subject to the provisions of Title II, the regulations prescribed by Title VI do not apply. Similarly, a telecommunications carrier generally regulated under Title II is subject to the obligations in Title VI to the extent it is providing a cable service. So the statutory provisions accommodate cable system operators' delivery of new or hybrid services, even where those services may not fit neatly into the existing regulatory classifications. For example, there is widespread agreement that telephony provided over the cable plant is subject to Title II regulation. A powerful case has been made that cable modem services should also be subject to Title II.

Video services provided over the telephone system are subject to Title VI. Were cable modem services similarly subject to Title VI, provisions governing general franchising authority, the ability of local authorities to assess franchise fees, and the cap on such fees would continue to apply.

****40** But under the classification scheme adopted today, the categorizations become much more difficult. For example, is IP telephony subject to Title II as is cable

telephony, or Title I, as is cable modem service? Is video streaming over cable modem service subject to Title VI as are traditional video services delivered by cable systems, or is that too now subject to the vagaries of Title I?

The Ruling will force cable modem services into the generally deregulated information services category, subject only to the Commission's ancillary jurisdiction of Title I. I cannot conceive that Congress intended to remove from its statutory framework core communications services such as the one at issue in this proceeding. I cannot imagine that it envisioned its statutory handiwork being made obsolete by a new service offering.

***4871** But make no mistake - today's decision places these services outside any viable and predictable regulatory framework. First, it concludes that, as a statutory matter, cable modem services are not cable services. Next, it concludes that cable operators providing cable modem services over their own facilities are not offering telecommunications services because subscribers are purchasing only information services. This is the same forced analysis the Commission tentatively reached in the *Wireline Broadband NPRM*. Those who conclude that the Commission has now resolved that particular proceeding after just one month may be pardoned.

Next, the Commission addresses the situation in which a cable operator offers its cable modem service as an input provided to an unaffiliated ISP. Although the decision concludes that the record provides insufficient information to determine whether cable operators are offering pure transmission services to ISPs, the majority determines - with scant analysis - that it expects that any cable operators that offer pure telecommunications in the future would be offering only private carriage. Doesn't insufficient information mean that the Commission should refrain from broad pronouncements until it can acquire the necessary data?

Finally, the Commission dismisses out of hand the argument raised in the record that the Commission's current rules by their terms require cable operators to offer access to unaffiliated Internet providers. These rules require carriers that offer transmission capacity using wire or radio to offer transmission services to competing information service providers.[FN1] This policy has been key to the development of a competitive information services market. The Ruling, however, concludes with scant analysis that these access requirements only apply to wireline telephone companies.

The Ruling seems uneasy with its own conclusions. Just in case we are wrong, and access requirements *were* to apply, they are waived, on the Commission's own motion, with neither notice nor comment. And if even ***that*** stretch somehow fails to get the point across, the *NPRM* adopted today also takes steps to ensure that these services remain deregulated in the face of any court opinion to the contrary. Even if cable modem services are found by the courts to be subject to regulation, the Commission would forbear from enforcing those obligations. So, in this analysis the majority makes a determination, but just in case it got the determination

wrong, it waives the rule it determined did not apply, and, should the courts disagree, we simply forbear from enforcing the rule. That's a far distance down the road from the simple NOI we are working from, isn't it?

****41** Once the Ruling has reached its desired result to remove these services from regulatory requirements, we are then told not to worry - the Commission can build its own regulatory framework under its ancillary jurisdiction. Years ago, when I worked on Capitol Hill, we used to worry about legislation on an appropriations bill. Down here, I'm learning that I have to look out for legislation on an NPRM.

The NPRM adopted by the Commission today raises the further question - also addressed in a tentative conclusion in the *Wireline Broadband NPRM* - as to whether cable modem services should be subject to an access requirement. The majority notes that certain cable system operators have recently begun to enter into carriage agreements with unaffiliated ISPs. While this progress is worth noting, I would also note that such agreements are quite new, are generally limited to the largest cable systems, and are generally offered to only one or two unaffiliated ISPs. Thus, while there has been some promising movement in the direction of multiple ISP access, the progress has been slow and the course is far from set. The effect of this deliberate pace has been to deny many consumers access to more than one ISP - a ***4872** circumstance that recently proved a near-disaster when the one ISP carried by some of the nation's largest cable systems abruptly closed its doors.

I am pleased that the majority recognizes in theory the ability of the Commission to impose an access requirement even under its reading of the statute. I am not, however, sanguine that we will ever get there in practice. I do believe that *some* access requirement is necessary in order to ensure that consumers have choices of ISPs. It strikes me as ironic that without such a requirement the Internet which grew up on openness - may become the province of dominant carriers, able to limit access to their system to all but their own ISPs. I would like to hear from a multiplicity of stakeholders what they believe the nature of a multiple ISP requirement should be, how it could be implemented, and what other regulatory or public interest implications would accompany the imposition of such a requirement.

Today we take a gigantic leap down the road of removing core communications services from the statutory frameworks established by Congress, substituting our own judgment for that of Congress and playing a game of regulatory musical chairs by moving technologies and services from one statutory definition to another. Last month I remarked that in our *Wireline Broadband* proceeding, we were out-driving the range of our headlights. Today I think we are out-flying the range of our most advanced radar.

Let me repeat my serious misgivings about not just the propriety, but the wisdom of the Commission proceeding directly from a general Notice of Inquiry to the adoption of such far-reaching conclusions in so important an area of national

policy. How America deploys broadband is the central infrastructure challenge our country faces. It is a public policy matter of enormous implications. How we get it done affects not only how many megabytes of information our computers can download, but what kinds of options consumers will be able to choose from, what kinds of protections they will have against misguided or fraudulent business practices, and what kinds of opportunities will be available to those in our society who do not share fully in our general prosperity. With so much at stake, I would have hoped for a little more modesty and measured pace on our part.

FN1. *See* 47 U.S.C. § 153(10). In light of this broad definition of common carrier, Congress expressly exempted cable services regulated under Title VI from regulation as a common carrier. 47 U.S.C. § 541(c).

17 F.C.C.R. 4798, 17 FCC Rcd. 4798, 2002 WL 407567 (F.C.C.)
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