DEVELOPMENTS IN REGULATING HIGH-SPEED INTERNET ACCESS: CABLE MODEMS, DSL, & CITYWIDE WI-FI

By Anna J. Zichterman

The telecommunications industry is undergoing rapid change, fueled by technological innovation and consumer demand for better and faster communication tools. Computer technology, mobile telephony, the internet, and satellite communications now crowd a market once dominated by radio, fixed-line telephony, and cable television. As a natural monopoly, the telecommunications industry would automatically price many consumers out of the market without some government intervention. Thus, the Federal Communications Commission (FCC) is charged with implementing the legislation enacted by Congress to regulate this industry. The U.S. government has historically recognized that all consumers are entitled to access at least a basic tier of telecommunications services. In the past several years, the FCC has faced the question of interpreting whether high-speed internet access should be considered a part of this minimum guarantee. The FCC has thus far failed to categorize high-speed internet access as a "universal service"; if it were so classified, high-speed internet access would then be subsidized in rural and underprivileged areas by the universal service fee that all telecommunications service providers pay. In the absence of such policy decisions, the lack of access to affordable high-speed internet access may widen the digital divide between the "haves" and the "have-nots."

The recent policy debate over internet access services extends out of a carefully constructed regulatory framework, with the Communications Act of 1934 serving as the legislative foundation for this industry. Traditionally, internet access service providers—first with dial-up access and then digital-subscriber line (DSL) services dominating the market—were telephone companies, conveniently already under the regulatory scope of the FCC. With the rise of cable modem services for internet access, though, the FCC sought to clarify certain terms defined in the Communications Act.

The FCC's Declaratory Ruling in 2002, informed by comments from industry representatives, consumer advocates, and state and local govern-
ment officials, found that government regulation of cable modem services was not required and in fact may inhibit further investments in research and development in the area of high-speed internet access. Opponents challenged this policy in the courts, and a cable industry trade association appealed the now infamous case to the U.S. Supreme Court, which ultimately upheld the FCC’s Declaratory Ruling. Since the Supreme Court decision in National Cable & Telecommunications Ass’n v. Brand X Internet Services, the FCC has taken further steps to deregulate the high-speed internet access market. Although the Supreme Court upheld the FCC’s hands-off approach, municipalities and consumer advocates are responding with efforts to provide high-speed internet access as a public utility in urban areas. The municipalities’ efforts to achieve broader access where the FCC refuses to regulate evidence the disagreement between the FCC and local governments over the need for regulation.

This Note summarizes the recent changes in the FCC’s regulation of high-speed internet access and contends that the Brand X decision highlights the gaps and oversights in current regulations. Part I of this Note sets forth a historical overview of traditional regulation in the telecommunications services and the emergence of computer and internet technology that challenged the traditional categorization of services. Part II examines the debates that arose about the proper classification of high-speed internet access services, and looks at how the courts and the FCC have interpreted the ambiguities in the existing legislation, including the FCC policies that emerged in the aftermath of the Supreme Court’s Brand X decision. Finally, Part III explores the efforts by municipalities to provide alternative networks for affordable high-speed internet access, which efforts appear to be a direct response to the FCC’s hands-off policy toward this important new area of communications technology. This Note concludes that the FCC’s failure to include high-speed internet access under the umbrella of universal service, while municipalities seek to subsidize the provision of such access, demonstrates a serious disconnect in policy that needs to be remedied.


I. HISTORICAL REGULATION OF TELECOMMUNICATIONS

Traditionally, the government has viewed telephone and cable television industries in the United States as natural monopolies and regulated them as such.\(^4\) A natural monopoly occurs when fixed costs or barriers to entry in a given industry dictate maximum efficiency through dominance of a single supplier. Classic examples include public utilities such as water, electricity, and natural gas, where fixed costs are high and a company's investment must be protected in order to have adequate incentive to build a certain network or backbone technology. In some cases, a company may come about its monopoly power without government intervention due to early market leadership or overwhelming cost advantages (e.g., by controlling a natural resource). In other cases, the government may determine at the outset that a market would be most efficiently served if one company controlled the industry.

With both telephone and cable television, the FCC took the latter stance, deciding it should "pick the most efficient competitor at the outset, give him a monopoly, and extract from him in exchange a commitment to provide reasonable service at reasonable rates."\(^5\) This stance was justified because the fixed costs of building a nationwide network infrastructure are so high that it would be inefficient for multiple companies in each industry to build duplicative networks. Once a network is built, the marginal cost of connecting one more house to the network is negligible.\(^6\) Moreover, no company would invest the necessary capital without some certainty that it would be able to recoup its investment, namely, that regulatory authorities would not threaten its monopoly status.\(^7\) In some cases, the government may even subsidize the investment in the network infrastructure, but would be willing to pay for only one company to build the backbone network.


\(^5\) Id. at 375 (quoting Omega Satellite Products Co. v. City of Indianapolis, 694 F.2d 119, 126 (7th Cir. 1982)).

\(^6\) See id. at 376-77.

\(^7\) See id.
A. Communications Act of 1934

The Communications Act of 1934 serves as the foundation for regulation of the telephone and cable industries.\(^8\) Title I of that legislation establishes the general jurisdiction of the FCC over the telecommunications industry.\(^9\) Title II of that legislation regulates common carriers.\(^{10}\) Title VI regulates cable services.\(^{11}\) The concept of common carriers was central to the law surrounding the Brand X decision. Other key terminology of the Communications Act includes “information services,” “telecommunications services,” and “cable services.”\(^{12}\) As described below, the meanings of these terms have been shaped significantly by the FCC’s “Second Computer Inquiry” in 1980, by key court decisions that sought to resolve grey areas left unexplained by Congress and the FCC, and by the Telecommunications Act of 1996.

Title II of the Communications Act of 1934 “envisions the FCC regulating the entry, rates, and services of common carriers of telephonic communications; auditing their books; and assuring that they provide non-discriminatory access to all.”\(^{13}\) In fact, the definition of the term “common carrier” is quite vague. The Act defines the term as “any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or in interstate or foreign radio transmission of energy.”\(^{14}\) As a result, the courts have looked at the function of the carrier, holding that a common carrier is one that “makes a public offering to provide [communications facilities] whereby all members of the public who choose such facilities may communicate or transmit intelligence of their own design and choosing.”\(^{15}\)

Title II of the Communications Act of 1934 subjects all providers of telecommunications services deemed “common carriers” to certain requirements. For example, common carriers must offer physical connections with other carriers.\(^{16}\) Their charges, practices, classifications, regula-
tions, facilities, and services must not give undue or unreasonable preference or advantage to any individual or entity, and a schedule of their charges must be filed with the FCC and open for public inspection. Telecommunications carriers engaged in interstate telecommunications must contribute to the universal service fund in accordance with FCC requirements. Finally, they must make available to any qualifying carrier such public switched network infrastructure, technology, information, and telecommunications facilities and functions to qualified carriers for telecommunications or information services.

In order to determine which entities are common carriers, the FCC and the courts must determine which entities are telecommunications carriers in the first place. The amendments introduced by the Telecommunications Act of 1996 define and differentiate between several categories of regulated services, including telecommunications services, information services, and cable services. The term “telecommunications service” is defined 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.” The term “telecommunications” is defined 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.” Information services are services provided that offer the “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 such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.” Finally, the term “cable service” is defined as (A) one-way transmission to subscribers of (i) video programming; or (ii) other programming service; and (B) subscriber interaction (if any) required for the selection of programming.

The emergence of computer and internet technology in recent decades complicated this regulatory landscape significantly. In 1980, the FCC is-

17. Id. § 202(a).
18. Id. § 203(a).
19. Id. § 254(d).
20. Id. § 259(a).
21. Id. § 153(46).
22. Id. § 153(43).
23. Id. § 153(20).
24. Id. § 522(6).
sued a policy ruling now known as the “Second Computer Inquiry.”

This inquiry distinguished between what it referred to as “basic” and “enhanced” services. Consumer perception served as the central distinguishing feature between the two categories. If a service was only a “basic” service, then it would be subject to common-carrier requirements under Title II of the Communications Act. The FCC policy sought to prevent companies that exercised substantial market power in the provision of telecommunications from leveraging their dominance into the provision of enhanced services.

In the 1990s, the breakup of the Bell telephone monopoly by the Department of Justice Antitrust Section and the passage of the Telecommunications Act of 1996 by Congress reshaped the industry. The Telecommunications Act of 1996 amended the Communications Act of 1934 and placed restrictions on the Bell operating companies related to their provision of “information services.” Legislators at that time used the term “information services” interchangeably with the term “enhanced services.” The Telecommunications Act of 1996 essentially renamed the “enhanced service” category as “information services.”

### B. Classifying Internet Access Technology under the Communications Act

The most clear-cut explanation of the FCC’s classification of the various technologies that comprise the infrastructure of the internet can be found in the FCC’s report on the Inquiry Concerning the Deployment of Advanced Telecommunications. The FCC breaks network infrastructure into four segments—namely, the “backbone,” “middle mile,” “last mile,”

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25. *In re* Amendment of Section 64.702 of the Commission’s Rules and Regulations, 77 F.C.C.2d 384 (1980) [hereinafter *Second Computer Inquiry*].
27. *See Brand X*, 125 S. Ct. 2688, 2696-97 (2005) (“The [Second Computer Inquiry] rules defined both basic and enhanced services by reference to how the consumer perceives the service being offered.”).
and "last 100 feet." The "backbone" consists primarily of fiber optic lines either buried in the ground or laid under the sea, but can also be provided via satellite and radio spectrum. The "middle mile" consists of those facilities built by telephone and cable companies for ordinary telecommunications and cable services. The "last mile" connects the backbone and middle mile to the residential customer via cable modem, DSL, terrestrial wireless, or satellite service. Finally, the "last 100 feet" comprises the in-house wiring or wireless links between the customer's computer and the "last mile."

According to the FCC, as of 2001, the majority of U.S. households with residential internet access used dial-up services provided over local telephone lines. At that time, high-speed "broadband" service was just beginning to gain market share. Broadband services can be offered over coaxial cables, telephone wires, terrestrial wireless radio spectrum, and satellite radio spectrum. Because telephone and cable companies have not always found themselves in the best position to provide services directly to the customer themselves, a variety of business models emerged. For example, cable companies generally have provided such services in one of three ways. Sometimes cable companies have developed their own internet service provider (ISP) functions—such as web hosting and domain-name registration services—in-house and do not contract with any other companies in this process. Other times cable companies have entered into exclusive relationships with ISPs, offering a co-branded service (e.g., Comcast worked with the ISP Excite@Home to provide its Comcast@Home service). In such situations, the cable companies often purchase a stake in the entity providing the co-branded service. Finally, cable companies may lease space in their "last mile" infrastructure to a third-party ISP to service customers directly, without any financial affiliation between the cable company and the ISP.

Because DSL services are offered over telephone lines, telephone companies providing high-speed internet access were at this time subject to mandatory common-carrier regulation, including the requirement that

34. Id. at 20,922.
35. Id.
36. Id.
37. Id. at 20,923.
38. Id.
40. See id. at 4803.
41. See id. at 4814.
42. Id. at 4813-14.
43. See id. at 4815.
they share the "last mile" connection with unaffiliated ISPs. It has not been so clear, though, how cable modem services should be categorized. If cable modem service providers were deemed to be offering telecommunications services, they would necessarily be subject to Title II requirements for common carriers, including the requirement to carry competitor’s signals. In contrast, if they were deemed to be offering information services without a telecommunications services component they would not be subject to such requirements. The proper classification of cable modem services was the subject of a number of court cases and eventually the FCC inquiry that led to the Brand X decision.

II. THE CHANGING LANDSCAPE OF HIGH-SPEED INTERNET ACCESS POLICY

In 1999, then-Chairman of the FCC, William E. Kennard, came out strongly against regulation of broadband internet access, suggesting that regulation of the technology would be premature and would likely stunt any progress in its research and development. As discussed below, courts addressing the question of how to classify high-speed internet access under the Communications Act reached different results, creating confusion in the industry. In response, the FCC published a Notice of Inquiry in 2000 seeking comments on the technological details, business models, and regulatory implications for cable modem services. The FCC’s Declaratory Ruling that followed in 2002 sparked a number of court cases, culmi-

44. It is worth noting that common carrier requirements are not synonymous with the term "open access," which is often discussed in connection with internet access services. As a general rule, "open access" means nothing more than a requirement that a carrier interconnect with its competitors on nondiscriminatory terms. Although interconnection and nondiscrimination are part of common carrier requirements, they are not sufficient to trigger common carrier status and the filing requirements that go along with that. Open access may be mandated by the FCC or other regulatory bodies, but it is often triggered by antitrust concerns, not public utility regulation. Also, if open access were required, "Cable companies would be able to set reasonable terms and conditions in private negotiations, as long as the same terms and conditions they grant to their affiliates are available to non-affiliated internet service providers." Mark Cooper, Open Access to the Broadband Internet: Technical and Economic Discrimination in Closed, Proprietary Networks, 71 U. COLO. L. REV. 1011, 1023 (2000).


46. See id. at 892-93 (quoting William E. Kennard, Chairman, FCC, The Road Not Taken: Building a Broadband Future for America, Remarks Before the National Cable Television Association, Chicago, Illinois (June 15, 1999)).

47. Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, 15 F.C.C.R. 19, 287 (2000).
nating in the *Brand X* decision. Emboldened by the Supreme Court’s decision upholding the FCC’s Declaratory Ruling last year, the FCC adopted an even more broad-based policy affecting not only cable modem services but DSL as well. This Part explains each of these developments in detail.

A. **Cases Highlighting the Ambiguity of Classifying Cable Modem Services**

While the FCC adopted a wait-and-see approach towards regulating broadband internet access, several lawsuits emerged out of the ambiguity left unresolved by the FCC’s service classifications. Courts set out to interpret how the Communications Act applied to these new technologies. In 1999, a district court in the case of *AT&T Corp. v. City of Portland*\(^48\) described broadband internet access over cable as a “cable service” under Title VI of the Act.\(^49\) As a cable service not subject to Title II regulation, the court upheld the city’s municipal authority to impose open access rules as implicit in the nature of local cable franchising. The Ninth Circuit reversed that decision, holding that cable broadband should be treated as a telecommunications service, not as a cable service.\(^50\) Further, the Ninth Circuit found that the Communications Act of 1934 prohibited a local cable franchising authority from “condition[ing] a transfer of a cable franchise upon the cable operator’s grant of unrestricted access to its cable broadband transmission facilities for [ISPs] other than the operator’s proprietary service.”\(^51\)

Decisions from other circuits also emerged, demonstrating courts’ confusion over the Communications Act definitions and the need for FCC intervention. In 2000, the district court of the Eastern District of Virginia described broadband internet access over cable as a “cable service” but struck down locally imposed open access rules as a forbidden form of common carrier regulation.\(^52\) This decision has been criticized for wrongly equating “the adoption of an open access rule with the imposition of common carrier status.”\(^53\) In another case, the Eleventh Circuit concluded that the provision of internet access over cable was neither a cable service nor a telecommunications service.\(^54\) On a grant of certiorari, the Supreme Court declined to rule on this question, which was only tangential to the

\(^{48}\) 43 F. Supp. 2d 1146 (D. Or. 1999), rev’d, 216 F.3d 871 (9th Cir. 2000).

\(^{49}\) See id. at 1153.

\(^{50}\) AT&T Corp. v. City of Portland, 216 F.3d 871 (9th Cir. 2000).

\(^{51}\) Id. at 873.


issue being decided in that case; instead it cited the ongoing inquiry into the matter recently begun by the FCC.\textsuperscript{55}

B. FCC Notice of Inquiry and the *Brand X* Decision

Faced with growing pressure to clarify the regulatory framework governing cable modem services for consumer internet access, in 2000 the FCC published a Notice of Inquiry seeking comments.\textsuperscript{56} In response, the FCC received more than 250 comments and also met with industry representatives, consumer advocates, and state and local government officials to discuss the technological details, current business models, and regulatory implications.\textsuperscript{57} As a result of these efforts, the FCC issued a declaratory ruling on March 15, 2002, clarifying "what, if any, regulatory treatment should be applied to cable modem service."\textsuperscript{58} The FCC concluded 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."\textsuperscript{59}

In response to the FCC’s Declaratory Ruling, a number of companies, consumer organizations, and other interested associations filed a total of seven petitions in the Third, Ninth, and District of Columbia Circuit Courts seeking judicial review of the FCC’s decision.\textsuperscript{60} One of these companies, a small Santa Monica, California-based company called Brand X Internet Services, challenged the cable companies’ control over the last mile infrastructure.\textsuperscript{61} A multidistrict litigation panel transferred the related petitions to the Ninth Circuit for consolidation and review with the Brand X petition.\textsuperscript{62} The Ninth Circuit affirmed in part and vacated in part the FCC’s Declaratory Ruling, concluding that "cable modem service includes a telecommunications service component."\textsuperscript{63} In so holding, it relied heavily on its analysis and holding in *AT&T Corp. v. City of Portland*.\textsuperscript{64} Interestingly, the FCC had already rejected the precedential value of this verdict in its Declaratory Ruling, stating that "the Portland court considered a much narrower issue" and noting: "The Ninth Circuit’s decision was based

\textsuperscript{56} See FCC Declaratory Ruling, 17 F.C.C.R. 4798, 4801 (2002).
\textsuperscript{57} Id.
\textsuperscript{58} Id. at 4800.
\textsuperscript{59} Id. at 4802.
\textsuperscript{60} See Brand X Internet Servs. v. FCC, 345 F.3d 1120, 1127 (9th Cir. 2003).
\textsuperscript{61} See id.
\textsuperscript{62} Id.
\textsuperscript{63} Id. at 1140. The Ninth Circuit denied a rehearing and suggestion for rehearing en banc on August 31, 2004.
\textsuperscript{64} AT&T Corp. v. City of Portland, 216 F.3d 871 (9th Cir. 2000).
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.65

The Supreme Court reversed the Ninth Circuit’s ruling.66 Specifically,
the Court decided the case as a matter of administrative law, holding that
the Communications Act directly addresses the question of classification
of cable modem services, and that the FCC’s interpretation of the ambigu-
ities in the Act constitutes “a reasonable policy choice” to which the Court
must defer.67 The Court agreed with the FCC that the precedential value of
the AT&T Corp. v. City of Portland decision did not survive the FCC’s
Declaratory Ruling. The Court also accepted as reasonable the FCC’s po-
sition that the nature of cable modem services should be interpreted from
the consumer’s point of view, summarizing the FCC’s conclusion that
“cable modem service is not a telecommunications offering because the
consumer uses the high-speed wire always in connection with the informa-
tion-processing capabilities provided by Internet access, and because the
transmission is a necessary component of Internet access . . . .”68

The Brand X ruling, in upholding the FCC’s classification of cable
modem services as an “information service,” thus upheld the exemption of
cable modem service providers from regulation as a common carrier under
Title II. The Court opted not to reach the policy concerns raised by the re-
spondent related to anticompetitive practices of cable operators and over-
zealous bundling of services, stating only that “we do not believe that
these results follow from the construction the [FCC] adopted,”69 essen-
tially placing the ball back in the FCC’s court for further policymaking.
Three justices dissented.70

67. See id. at 2702-10. In the majority opinion, authored by Justice Thomas, the
Court held that the Ninth Circuit had erred in failing to analyze the case under the frame-
(1984). The Court did not engage in any substantial debate of the optimal policy for tech-
nological development, but rather focused on the administrative law questions and defer-
ence owed to the FCC. First, the Court found that the Communications Act of 1934 is
indeed ambiguous as to the definitions of “telecommunications service” and “information
service,” which is the first step under the Chevron framework to allow the FCC the dis-
cretion to fill the gaps of ambiguity. See Brand X, 125 S. Ct. at 2706-08. The Chevron
framework then requires the Court to decide whether the administrative agency’s policy
choice was reasonable. See id. The Court found that it was reasonable. See id. at 2703-04.
68. See id.
69. Id. at 2708.
70. Justice Scalia authored the dissenting opinion. See id. at 2713-21 (Scalia, J.,
dissenting). In Part I of the dissent, Scalia suggests that the FCC’s reading of the Com-
C. FCC’s August 5th Decision Deregulating DSL Services

As mentioned above, telephone companies offering DSL services had, prior to the Brand X decision, been subject to Title II common carrier regulation.\(^7\) They were required to offer the “broadband” transmission component on a common-carrier basis, separate from any internet service that they offered. Briefs in the Brand X case honed in on this issue, highlighting the inconsistent regulation of DSL and cable modem services.\(^7\) Shortly after the Brand X decision, the FCC convened its Open Commission Meeting on August 5, 2005, and adopted a policy that both DSL and cable modem services are information services and not subject to common carrier regulation.\(^7\) In other words, the FCC embraced its regulatory decision recently reinforced by the Court and then extended its reasoning under the 2002 FCC Declaratory Ruling to reach all modes of high-speed communications Act of 1934 was “implausible” and that the FCC “ha[d] thus exceeded the authority given it by Congress.” The opening paragraph of his dissent articulates the paradox that Scalia finds in the majority opinion, namely: “Does this mean that cable companies ‘offer’ high-speed access to the Internet? Surprisingly not, if the Commission and the Court are to be believed.” \(id.\) at 2713. In challenging the plausibility of the FCC’s interpretation that cable companies are offering something more than simply telecommunications services, Justice Scalia offers several non-technical analogies to illustrate his point. He suggests that a pizzeria that delivers pizzas, even though it is in the business of baking pizzas, necessarily “offers” delivery service and it would be reasonable to conclude as much. \(See id.\) at 2714. Thus he analogizes that if cable companies provide both high-speed internet access as well as other applications and functions, then it is reasonable to perceive that from a consumer’s point of view the cable company is offering high-speed internet access. \(See id.\) at 2715. Justices Souter and Ginsburg joined in this part of the dissent. In Part II of the dissent, in which no other Justices joined, Scalia focused on his minority view of the interpretation of United States v. Mead Corp., 533 U.S. 218 (2001), where he suggested that “drastically limit[ing] the categories of agency action that would qualify for deference under \(Chevron\) . . . .” \(See Brand X, 125 S. Ct. at 2718\) (Scalia, J., dissenting).

71. \(See supra\) Section I.B.

72. \(See Brand X, 125 S. Ct. at 2710\) (“MCI points out that when local telephone companies began to offer Internet access through DSL technology in addition to telephone service, the Commission applied its \(Second Computer Inquiry\) facilities-based classification to them and required them to make the telephone lines used to transmit DSL service available to competing ISPs on nondiscriminatory, common-carrier terms . . . .”) (citations omitted).

internet access service provisions. Overall, the FCC has shifted away from viewing each mode of high-speed internet access services separately, in favor of fostering a competitive environment among DSL, cable modem, wireless, and satellite services.

Though consistent with the FCC’s recent stance on pro-market forces, this step was bolder than most expected. The FCC’s newly announced policy eliminates the facilities sharing requirements for DSL service providers. During a one-year transition period beginning August 5th, 2005, the FCC requires that affected providers continue providing internet access to unaffiliated ISPs on a grandfathered basis. It also requires that they continue to contribute to the universal service fund at their current levels for a 270-day period or until the FCC adopts new contribution rules.

The FCC stated that this policy would place DSL providers “on an equal regulatory footing with cable modem service, currently the market leader” and touted the policy as one that “will enable potential investors in broadband network platforms to make market-based, rather than regulation-driven, investment and deployment decisions.” The premise underlying the FCC’s justification of this policy is that the high-speed internet access industry should be viewed as a whole, with cable modem service providers competing against DSL providers, wireless internet services, and satellite services alike. Thus, the FCC seeks to foster development and competition among these types of services, rather than focusing on competition within each type of service.

However, the policy ignores the reality that innovators, technology companies, and consumers face unfair discrimination on the internet by network providers. It also threatens the FCC’s ability to meet its universal service responsibilities. One Commissioner underscored the importance of the provision in the August 5th Order related to DSL universal service requirements and the FCC’s commitment to “take whatever action is necessary to preserve existing funding levels.”

74. See August 5th Order, supra note 73, at 26-27. In an option that will affect primarily rural local exchange carriers, the FCC stated that DSL providers may opt to offer transmission to affiliated or unaffiliated ISPs on a common-carrier basis, a non-common carrier basis, or some combination of both. August 5th Order, supra note 73, at 47.

75. August 5th Order, supra note 73, at 53.

76. August 5th Order, supra note 73, at 63.

77. August 5th Press Release, supra note 73.

78. August 5th Press Release, supra note 73.

The FCC’s August 5th Order should not come as a complete surprise to the industry. The FCC signaled its inclination to classify DSL broadband services as “information services” and thus relieve telephone companies of their facilities sharing requirements as early as 2002 in a Notice of Proposed Rulemaking.\(^\text{80}\) That notice summarized: “We tentatively conclude that wireline broadband Internet access services—whether provided over a third party’s facilities or self-provisioned facilities—are information services subject to regulation under Title I of the Act, and we ask for comment on this tentative conclusion.”\(^\text{81}\) Moreover, the position of FCC Chairman Kevin Martin was well known. In the month before the August 5th announcement, one news article noted, “Mr. Martin’s theory is that phone and cable companies will be more inclined to expand broadband connections to consumers if they don’t have to help foot the bill for their rivals.”\(^\text{82}\) The new policy strips such ISPs of the leverage to negotiate with large telephone and cable companies. The fate of such ISPs, who are often better equipped to offer innovative services and newer technologies to consumers, now lies in their ability to negotiate access to the “last mile” with telephone and cable companies privately.

III. AFFORDABILITY AND AVAILABILITY OF HIGH-SPEED INTERNET ACCESS

While the FCC’s August 5th Order may have been the inevitable next step after the *Brand X* decision, the premise and effect of its decision deserves greater scrutiny. At the heart of the FCC’s policy justifications for its current position is the idea that now cable modem services are competing against DSL services and other means of high-speed internet access. The reality of this vision, however, is that most residential households will now face only two choices: cable modem services through their television cable provider or DSL services through their telephone provider. The likely result will be less pressure on the large telephone and cable companies to improve their customer service or provide the best technology in a cost-efficient manner. Those providers will be left to determine as a commercial matter whether to contract with independent third-party ISPs, driven to compete for customers in terms of technology offered, price, and quality of service. It is not unreasonable for the FCC to allow telephone

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\(^{81}\) *See id. ¶ 16.*

\(^{82}\) *See, e.g., Amy Schatz, Fighting a Broadband Battle; New FCC Chairman Martin Argues Looser Rules will Boost High-Speed Internet Services*, WALL ST. J., July 19, 2005, at A4.
and cable companies to protect their investments in laying new fiber optic lines throughout their networks to offer these services. After all, these are the classic economic justifications for endorsing natural monopolies. However, the need to assure competition and universal service justifies a more hands-on approach by the FCC. For many residential customers, the subscription price is simply too high, and for other customers the service options are too limited.

A. Internet Subscription Data for U.S. Households

Recent census data highlights the problems related to affordability and availability of high-speed internet access. According to the latest census data available, as of 2003, 61.8% of the households in the United States owned a computer, while 54.7% of all households had some form of internet access.\(^{83}\) For those households with a computer but without internet access, 30.6% cited “Don’t need it, not interested” as the primary reason for not having internet access, while 31.1% cited “Costs are too high.”\(^{84}\) Not surprisingly, younger households were more likely to cite high costs as the key obstacle, whereas older households were more likely to cite a lack of interest in the internet.\(^{85}\)

The percentage of internet users in rural and urban areas is similar (57.2% and 59.2%, respectively).\(^{86}\) In rural areas there were 11.4 million households with dial-up internet access, and 27.2 million households with dial-up internet access in urban areas.\(^{87}\) Among those dial-up users, 4.7% of urban households cited “not available” as the main reason for using dial-up instead of high-speed internet access, versus 22.1% of rural households.\(^{88}\) In terms of cost, 42.1% of urban households using dial-up connections cited “too expensive” as the main reason that they have not sub-

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83. See Jennifer Cheeseeman Day et al., U.S. Census Bureau, Computer and Internet Use in the United States: 2003 (Oct. 2005), available at www.census.gov/prod/2005pubs/p23-208.pdf. The FCC cited a nearly identical figure in its August 5th Order, stating that “only 54.6 percent of U.S. households subscribe to either broadband or narrowband Internet access service.” See August 5th Order, supra note 73.

84. See Day et al., supra note 83, at 3.

85. See id. at 4 (“[D]isinterest in the Internet is related to the age of the householder. Of the 20 million householders who stated they were not interested in the Internet, over 60% (12.7 million) were aged 55 and older. Householders aged 15 to 44 without Internet access most frequently cited “costs are too high” as the reason.”).


87. See id. at 14 fig. 11.

88. Id.
scribed for high-speed internet access, versus 31.1% of rural households.\textsuperscript{89} Intuitively, urban areas are more likely than rural areas to have more options for high-speed internet access. This issue has not been the focus of news or analysis, and was largely glossed over by the FCC in its August policy announcements, but it deserves greater attention. Such attention might come in the form of renewed discussions of how high-speed internet access fits into the universal service efforts of the FCC. Local government initiatives may provide rural residents affordable internet access using a public utility model.

B. The Universal Service Debate

One of the FCC’s responsibilities is to administer a universal service program across the United States to benefit consumers. The Telecommunications Act of 1996 established a Federal-State Joint Board charged with designing universal service policies.\textsuperscript{90} The principles underlying the universal service effort included that telecommunications and information services should be provided in all regions of the United States, quality services should be available at “just, reasonable, and affordable rates,” and “low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.”\textsuperscript{91} Based on these principles, the joint board defined “universal service” to include: “voice grade access to the public switched network, with the ability to place and receive calls; touch-tone or dual tone multi-frequency signaling . . . or its functional equivalent; single-party service; access to emergency services; access to operator services; access to interexchange services; and access to directory assistance.”\textsuperscript{92} These were the established classifications of various telecommunications services at the time when the high-speed internet access debates arose.

Any treatment of high-speed internet access is missing from the discussion of universal service.\textsuperscript{93} The lack of a clear mandate exacerbated the debate prior to \textit{Brand X}. In 1998 the FCC issued its Universal Service Report to advise Congress regarding the implementation of several provisions of the Telecommunications Act of 1996, specifically reserving the

\begin{itemize}
\item \textsuperscript{89} \textit{Id.}
\item \textsuperscript{90} \textit{See} 47 U.S.C. § 254 (2000).
\item \textsuperscript{91} \textit{See id.} § 254(b)(1), (3).
\item \textsuperscript{92} \textit{See BENJAMIN ET AL., supra} note 4, at 769.
\item \textsuperscript{93} \textit{See id.}
\end{itemize}
question of the statutory classification of cable modem services.\textsuperscript{94} Since then, the FCC has not made any further efforts to include high-speed internet access under the umbrella of universal service. The Bush administration has generally supported increased availability of high-speed internet access as a goal, but has not taken an express position in the ongoing debate.\textsuperscript{95}

C. Efforts by Municipalities to Introduce Further Competition Through Affordable Wi-Fi Networks

In the meantime, another model has emerged that could challenge the monopolistic characteristics of the current market and inject a new competitor in this sector. A number of municipalities, often in public-private partnerships, propose leap-frogging telephone and cable companies' offerings, opting to install wireless fidelity (Wi-Fi) networks for high-speed internet access that will be accessible for free or at low, subsidized costs to residential consumers. Philadelphia was one of the first municipalities to announce such a plan, with Mayor John F. Street highlighting the possibility of providing internet access to the city’s residents at more affordable subscription rates than are available from telephone and cable companies.\textsuperscript{96} The city aims to charge a monthly subscription fee of less than $20, but with much lower subscription fees for lower-income subscribers.\textsuperscript{97} In October 2005, Philadelphia announced that it had accepted Earthlink’s bid to build the system in partnership with the city.\textsuperscript{98}

Other cities have now followed suit. San Francisco announced a similar plan and solicited private company bids.\textsuperscript{99} Among the dozens of bidders was Google, which proposed to provide wireless high-speed internet


\textsuperscript{95} See, e.g., Kathleen B. Cooper & Michael D. Gallagher, Foreword to U.S. DEP’T OF COMMERCE, A NATION ONLINE: ENTERING THE BROADBAND AGE (Sept. 2004), available at www.ntia.doc.gov/reports/anol/NationOnlineBroadband04.pdf (“President Bush has set out a bold vision for broadband in America, establishing a national goal for ‘universal, affordable access for broadband technology by the year 2007.’”).


access in the city for free to all residents, relying on potential ad revenue to fund the project. The Chicago City Council hosted public hearings throughout the year regarding the possible construction of a citywide wireless network, and a handful of smaller municipalities across the country are reportedly considering similar possibilities.

These proposals demonstrate the belief at least at the local level that high-speed internet access is worth subsidizing with public funds. The internet arena is not simply a vehicle for leisure, entertainment, and game-playing. Rather, it serves an important role in terms of children's and adults' education, job training, community involvement, political representation, and access to information. Leaving underprivileged urban neighborhoods deprived of affordable access to high-speed internet services will exacerbate the gap between the "haves" and the "have-nots." If the FCC will not subsidize high-speed internet access by classifying it as a part of the universal service package, then municipalities may step in on a case-by-case basis to provide such services, each with a slightly different model. Installation of Wi-Fi towers is extremely affordable, and basic access need not be as expensive as that offered by current providers.

Nonetheless, the municipalities' opponents are numerous, as telephone and cable companies view these efforts as a direct assault on their business models. For example, Verizon successfully lobbied the Pennsylvania state legislature "to prevent cities from using public funds to offer paid telecommunications services without first asking local phone companies for permission." Verizon and other companies are making similar efforts throughout the country with local and state legislatures. For example, the agenda for a conference hosted in San Francisco on September 28, 2005, called MuniWireless 2005, whose sessions included not only a talk on "Successfully Deploying City- and County-wide Wi-Fi" but also "How to Defeat Anti-Municipal Bills," described the struggle as follows:

100. See id.
102. See, e.g., Jesse Drucker, Technology Watch: Freebies May Depress Internet-Service Costs, WALL ST. J., Oct. 23, 2005, at A4 ("Numerous cities have announced plans to do similar citywide wireless networks, including . . . Minneapolis, Sacramento and scores of smaller towns.").
104. See Drucker et al., supra note 99.
There are numerous enemies of the future. One of them is the anti-muni broadband bill, an increasingly-attempted method for squelching municipal wireless initiatives. And the battle is now being fought in Congress as well. This session walks attendees through the typical phases such regulatory efforts follow, and provides case studies showing how these attempts have successfully been defeated.\textsuperscript{105}

The opposition to these proposals by telephone and cable companies may evidence the pressure such companies would feel from the implementation of municipal plans. After all, this would essentially put municipalities in direct competition with traditional service providers for customers, and the Wi-Fi tower signals would likely reach beyond just low-income neighborhoods.

There are also some important downsides to the municipal proposals.\textsuperscript{106} First, cable and telephone companies may limit any further investment in and shift their focus away from urban residential markets as a result of being undercut in terms of pricing by municipalities. Such cutbacks from the cable and telephone companies could be risky because they would limit consumer choices, particularly if municipal systems prove unreliable or substandard. Also, there would be administrative and maintenance costs to the local government on an ongoing basis beyond the low installation costs. Moreover, given the fast pace of developments in the technology sector, municipalities may struggle to keep up with the advanced technology, depending on the structure of their public-private partnerships. On balance, though, the advantages of municipal proposals outweigh the challenges and potential extra costs that local governments may face in implementing those proposals.

\section*{IV. CONCLUSION}

High-speed internet access is a new technological area and it is thus understandable that the legislature, courts, and FCC are struggling to clas-
sify the related services in an appropriate manner. The Brand X decision settled the definitional question, with cable modem services now falling squarely within the "information services" category. The August 5th Order further loosened the FCC’s regulatory grip on the industry by removing facilities-sharing restrictions from DSL business models. There are multiple players in the high-speed internet market competing for business.

However, there is a significant disconnect between the FCC and the localities as evidenced by the failure of the FCC to include high-speed internet access under the umbrella of universal service while municipalities at the same time seek to subsidize the provision of such access. Whereas the FCC deems the cable companies and DSL providers to be sufficiently competitive, municipalities rush to introduce new competition into the market through public-private partnerships. Moreover, these municipal policies address underprivileged urban areas, but attention also should be directed toward underserved rural areas, where low-cost Wi-Fi towers may not be as economical in sparsely populated areas. Meanwhile, telephone and cable companies vehemently oppose these proposals and are actively seeking to block such partnerships in each municipality. Despite the Supreme Court’s ruling on Brand X, the FCC faces new hurdles in the area of high-speed internet access. The municipal policy proposals suggest that the FCC, in its pro-industry stance, may be glossing over some serious concerns related to high-speed internet access, and should consider more seriously the implications in terms of innovative technological development, benefits to consumers, and efficient access in rural and other disadvantaged residential areas.