BROADBAND REGULATION AT THE DEMISE OF THE 1934 ACT: THE CHALLENGE OF MUDDLING THROUGH

John T. Nakahata*

As we approach the 70th anniversary of the Communications Act of 1934 ("the Act" or "the Communications Act"), this familiar grand dame is afflicted with a terminal condition—Internet Protocol ("IP"). This condition is not one of sudden onset, and is really just the late stage manifestation of its precursor, digitalization. Broadband—and IP-based services more generally—attack the fundamental skeleton of the Communications Act itself, eroding the framework around which the Act's regulations are built. Although legislative surgery has saved our grand dame before by adding the cable provisions of Title VI ("the 1984 Act") and the local competition provisions of Title II ("the 1996 Act"), the cure for broadband IP is a long way off—and may not even be effective without killing the patient and replacing her with something entirely new.

The difficulty facing the Federal Communications Commission ("FCC"), of course, is that the FCC itself is a creature of the Act. The Communications Act created the Commission, established its powers and set limits on the Commission's authority. The Commission is not the Congress—it cannot enact new laws outside of the Act's delegations of rulemaking authority. And the Communications Act will not simply expire to be succeeded by the next generation.

If the technological assumptions underlying the Act's core statutory framework are indeed collapsing, then the challenge for the Commission is how to muddle through to best achieve sound public policy—and some degree of regulatory certainty—in a statutory environment that will be fraught with artificial, legacy statutory distinctions. The Commission has floated the idea of using its ancillary jurisdiction under Title I to fashion a new regulatory regime for broadband services. But this approach, if adopted by the Commission, is sure to be tested in the courts. So, the Commission (and the courts and industry) will end up confronting at least three questions: (1) how should the Commission best muddle through to address broadband IP services in the absence of new legislation; (2) does the Commission really have authority to create a new affirmative regulatory framework; and (3) what happens if the Commission is wrong about the scope of its authority given the existing statutory framework.

To help frame these issues further, this article first delineates what is generally meant by "broadband," discusses some of the ways in which broadband services challenge the technological assumptions underlying the Act's core statutory classifications; contrasts the legal underpinnings of the Commission's articulated Title I approach to broadband with the "telecommunications services" approach adopted by the Ninth Circuit; and reviews two examples of policy issues embedded in this debate.

I. WHAT IS BROADBAND?

For clarity of discussion, we need to have a com-

---

* John Nakahata is a partner in the law firm of Harris, Wiltshire & Grannis, LLP. He was Chief of Staff to former Chairman William Kennard of the Federal Communications Commission, and Senior Legal Advisor to former Chairman Reed Hundt of the Federal Communications Commission. The views expressed in this article are his own and do not necessarily reflect those of Harris, Wiltshire & Grannis, LLP or its clients.

1 47 U.S.C. §§160-714 (2000). References to the Act include all amendments thereto, except as specifically noted.
It is also useful analytically to separate the transmission function from the Internet access application provided over that transmission facility. The question of whether and how to regulate broadband then splits into two sets of issues: (1) do you regulate the high capacity, always-on last-mile IP transmission service, and if so, how do you do so and whom do you regulate; and (2) do you regulate the retail application that allows a user to transmit and receive information (including packetized voice transmissions) from different points on the Internet or other IP networks, or to distant points interconnected with the end user’s IP networks, and if so, how do you do so and whom do you regulate.

II. BROADBAND AND THE EROSION OF THE ACT’S CURRENT REGULATORY FRAMEWORK

The current framework of the Communications Act is regulation by “pigeonhole,” or as other commenters have called it, silo regulation. The hallmark of this framework is that each service is classified as common carriage (also labeled “telecommunications services”), private carriage, information (also labeled “enhanced”) services, Commercial Mobile Radio Service (“CMRS”), cable services, or broadcasting. The pigeonholes are largely technology specific, and contemplate specific applications and business models. CMRS, for example, is statutorily defined as a for-profit radio service, with equipment that is capable of being moved. Common carriage requires a transmis-

---

6 Initially, the FCC eschewed use of the term “broadband” in favor of “advanced telecommunications,” the term found in Section 706 of the 1996 Act, 47 U.S.C. §§251-76. See In re 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, Third Report, 17 FCC Rcd. 2844, para. 9 (2002). The FCC more recently has begun to use the term broadband. See, e.g., In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Notice of Proposed Rulemaking, 17 FCC Rcd. 3019, 3021 (2002) [hereinafter Wireline Broadband Internet Access NPRM]. In that NPRM, however, the Commission also failed to advance a definition of “broadband,” and it recognized that “broadband” and “broadband services . . . are elusive concepts, as they have come to mean many different things to many different people.” Id. at n.2.

7 Wireline Broadband Internet Access NPRM, supra note

---


sion by wire or radio. A cable system requires the one-way transmission of video programming over a system that has “closed transmission paths and associated signal generation, reception and control equipment.” Broadcasting is specifically defined as the dissemination of “radio communications intended to be received by the public, directly or by the intermediary of relay stations.”

Each pigeonhole has its own regulatory scheme and set of institutional arrangements. Common carriers, for example, are regulated by the FCC and state public utility commissions. Private carriers are largely free of regulation, with some exceptions, but also lack some of the significant rights of common carriers. Information service providers have been covered by the FCC’s Title I jurisdiction, and again are largely free of the regulatory requirements placed on common carriers, as well as many of the rights. CMRS providers are licensed by the FCC, and can be subjected to certain types of state regulation, but not regulation of rates or entry. Broadcasters are licensed under Title III of the Communications Act and subject to extensive federal regulation, but generally not state regulation. Cable operators are franchised at the local or state level, and are subject to regulation by franchising authorities, as well as by the FCC under Title VI of the Communications Act.

Thus, under the Communications Act it becomes a critical regulatory exercise to determine the “classification” of any new service, for example, the regulatory pigeonhole to which the service is assigned. These debates become long and protracted legal battles. The classification carries with it a bundle of rights and responsibilities, not only for the new service offeror, its competitors and consumers, but also for different local, state and federal governmental entities. Service providers seek for themselves the most favorable classification with the fewest regulatory restrictions—or at least the regulatory restrictions that are easiest for them to accommodate—and the most onerous classification for their competitors. Governmental entities with jurisdiction over a part of a provider’s service almost never want to yield jurisdiction over that same provider’s new service, and therefore seek the classification that maximizes their own authority.

The debate over the proper regulatory classification of wireline broadband Internet access services—both cable-based and traditional common carrier-based—illustrates the importance of regulatory classification and some of the stakes involved. Cable modem services were developed by cable operators, which historically had not been treated as common carriers. Cable modem service, therefore, developed as a unified consumer offering of a combination of high-speed data transmission and the Internet access application. Moreover, it was a proprietary offering, and high-speed transmission generally was not offered separately on a wholesale basis to entities other than the cable operator’s ISP partner. Local franchising authorities, which have always played a central role in regulating cable television, quickly asserted the right to receive a share of cable modem revenues as part of their statutorily-permitted franchise fee.

When offered by entities that historically had been common carriers, however, high-speed broadband Internet access service, and the underlying transmission facilities, evolved in a different regulatory environment. Under the FCC’s longstanding Computer II rules, when a facilities-based common carrier offers an information service, it must also make the underlying basic telecommunications service available to other information service providers. The Computer II separate offering requirement was developed expressly to sepa-

---

Radio communications equipment must be “capable of being moved and which ordinarily does move,” respectively.

12 Nakahata, supra note 8, at 104.
14 Id. at 106-07.
15 Id. at 108-10.
21 Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), Final Decision, 77 F.C.C. 2d. 384, 475 (1980) [hereinafter Computer II].
rate market power in the underlying facilities from the ability to provide an information service. As the Commission explained:

Because enhanced services are dependent upon the common carrier offering of basic services, a basic service is the building block upon which enhanced services are offered. Thus those carriers that own common carrier transmission facilities and provide enhanced services, but are not subject to the separate subsidiary requirement, must acquire transmission capacity pursuant to the same prices, terms, and conditions reflected in their tariffs when their own facilities are utilized. Other offerors of enhanced services would likewise be able to use such a carrier's facilities under the same terms and conditions.22

Accordingly, when Incumbent Local Exchange Carriers ("ILECs") introduced their own DSL-based information services, they were required to make standalone offerings of DSL transmission capacity as a common carrier service.23 Internet Service Providers ("ISPs") competing with the ILEC were then able to purchase DSL transmission services from the ILEC, and combine it with their own Internet applications and services in order to offer their own Internet access product to end users.24

The differences in regulatory treatment of the parent led to additional regulatory disparities. For example, because cable modem services have not been considered "telecommunications services"—at least prior to the Brand X decision25—cable modem transmission has not been subject to universal service assessments, nor has it been subject to the requirements of the Communications Assistance to Law Enforcement Act ("CALEA").26 In contrast, DSL transmission services are subject to federal universal service assessments and to CALEA.

A second example of a regulatory classification battle affecting broadband is Voice-over-Internet Protocol ("VoIP"). Specifically, consider the following example: Vonage Holdings Corp. ("Vonage") provides a service in which it allows its subscribers to use the broadband connection the subscriber purchases from a cable operator or DSL-provider to place voice calls to and receive voice calls from the Public Switched Telephone Network ("PSTN").27 The Minnesota Public Utilities Commission ("Minnesota PUC") reviewed Vonage's offering, and, notwithstanding the fact that Vonage reached its customer over that customer's broadband Internet access facilities and connected to the PSTN via a competitive local exchange carrier, the Minnesota PUC concluded that Vonage was offering telephone service as defined by Minnesota law.28 Vonage filed a petition for declaratory ruling at the FCC seeking a declaration that Vonage's service is an interstate "information service," and thus beyond state commission jurisdiction.29 Again, as a direct result of the Communications Act's structure, the Commission's classification decision will not only affect the regulatory burden on Vonage, but also rights of third parties and the institutional power of state and local governments.

These classification battles develop because, as high tech commentator (and former FCC staffer) Kevin Werbach observed, regulation by pigeon-hole "presumes that regulators can assign every service to a specific category."30 Werbach noted, "In the era of analog networks, this model was relatively easy to implement, as each service had discrete physical plant and outputs. For example,

---

22 Id. at 475. This obligation today still applies even to facilities-based non-dominant common carriers that compete with several other carriers along the same routes, and thus lack market power.

23 See In re Deployment of Wireline Servs. Offering Advanced Telecomm. Capability, Various Petitions, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd. 24012, 24028-30 (1998) (finding that advanced services, such as DSL, are "telecommunications services" when offered to the public directly or on a stand-alone basis).

24 Initially, the Commission also required ILECs to unbundle the high frequency portion of the loop, also known as "line sharing." See generally In re: Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 19020 (2003).

25 Brand X Internet Servs. v. FCC, 345 F.3d 1120, 1132 (9th Cir. 2003).


29 Id. at 1003 (explaining that Vonage also filed suit in federal district court to enjoin the Minnesota PUC's decision on the same grounds. The court agreed with Vonage and enjoined the Minnesota PUC from enforcing its decision).

30 Werbach, supra note 8, at 40.
In many residential areas, it is apparent that broadband is already offered in at least a duopoly structure of competing DSL and cable modem services.

The inherent flexibility of IP-based transmission to deliver multiple services has led several commentators to call for what has come to be called a "layered" approach to analysis of regulation. Although different commentators have used varying numbers of layers, one of the most common is a four-layered model of content, application, code/logic, and physical. These commentators advocate analyzing and developing regulation as appropriate in order to address competitive and other public policy issues at or between each layer, rather than applying regulation to a service as delivered by a particular technology. The layers approach is meant to cut across the traditional boundaries of service and technology. As one commentator argues, the layered model approach:

removes the assumption that service boundaries are clear and are tied to physical network boundaries; implies a more granular analysis within each layer; brings to the forefront the issue of interconnection between networks, and between functional layers within those networks; and recognizes the significance of network architecture as a determining factor in shaping business dynamics.

However, the difficulty with immediately implementing a layered approach—whatever its merit—is that the Communications Act itself is not layered. Instead, as has been discussed, it is comprised of service and technology-based silos. With no imminent statutory reform, the Commission itself faces difficult choices. One alternative is to fashion a new regulatory scheme out of the Commission's Title I authority—the approach suggested by Chairman Michael K. Powell, in the Commission’s Wireline Broadband Internet Access NPRM and Cable Modem Declaratory Ruling. Another alternative is to begin with the Commission’s Title II authority and pare back these obli-

Sicker/Mindel]; Sicker, supra note 8, at 9-13; and Whitt, supra note 8, at 23-26.

37 See Werbach, supra note 8, at 59-60; Whitt, supra note 8, at 26 (subdividing further the physical network layer into access and transport). Sicker/Mindel suggest four layers of content, applications, transport and access. Sicker/Mindel, supra note 36, at 88-89.

38 See Werbach, supra note 8, at 54; Sicker, supra note 8, at 6-9; Whitt, supra note 8, at 18-29.

39 Whitt, supra note 8, at 20, citing Werbach, supra note 8.

gations—the approach implicated by the Ninth Circuit's recent Brand X decision.41

III. TITLE I VERSUS BRAND X

A. The FCC's Title I Approach

In its Wireline Broadband Internet Access NPRM42 and Cable Modem Declaratory Ruling,43 the FCC started down the path of declaring that broadband services, including broadband transmission, fall within the Act's "information services" pigeonhole. Chairman Powell has explained that his approach to Internet services is to start with "the cleanest slate possible"44 and "build from a blank slate up as opposed to from the myriad of telecommunications regulations down."45 This approach attempts to combat the problems created by the Act's other regulatory categories by using the information services category to create a more appropriate regulatory structure for broadband services.46

There are a couple of notable features of this approach. First, this approach considers the product sold to the consumer as an integrated offering to the public, not a bundle of two separate products—an information service and a telecommunications service.47 The FCC adopted this position notwithstanding the fact that the cable operator—and the ILEC DSL provider—is providing its broadband customer both with the underlying broadband transmission as well as computer processing and access to databases. This is in contrast to dial-up Internet access in which the ISP provides only the processing/access to databases, and the customer uses her telephone service for transmission.

Second, although the approach is profoundly deregulatory in nature, it is not necessarily entirely deregulatory. In the Cable Modem Declaratory Ruling, although the FCC concluded that cable modem service was an information service, it then issued a NPRM seeking comment, inter alia, on whether it should impose a multiple ISP requirement on cable modem system operators.48 In the debates over VoIP, it is even clearer that the Commission may seek not just to deregulate Title I information services, but also to impose affirmative regulatory obligations—and perhaps even rights.

One of the core assumptions of the Title I approach appears to be that in broadband markets that are often (but not always) at least a duopoly, there is no longer a significant concern that a transmission provider could use its control of basic transmission facilities to reduce competition in the provision of enhanced, transmission facilities that ride over those basic facilities—the competition policy basis for the Computer II rules.49 To this end, the Commission has sought comment on whether it should eliminate the requirement that facilities-based common carriers make available basic transmission facilities that underlie their own information services.50 This assumption is further discussed in Section IV(A).

A second assumption apparently being made by the Commission is that it has the legal authority to promulgate any regulations that it deems necessary for Title I information services. In addition to competition policy issues, Title I of the Com-
communications Act implements a number of social policies, including universal service, access for persons with disabilities, compliance with the requirements of CALEA, customer proprietary network information, consumer protections for pay-per-call services and protections against slamming.\(^5\) It is unlikely that the Commission will abandon these social/consumer protection objections for broadband services simply because it may consider broadband-based services to be Title I information services, and it may even have lingering competition-based concerns.

The assumption of affirmative regulatory power under Title I begs for closer examination. It is true that the FCC has previously asserted broad jurisdiction to regulate interstate information services, and has been upheld in doing.\(^6\) It is also true, however, that with respect to information services, the Commission has rarely—and only recently—sought to impose affirmative regulatory obligations using its Title I authority.\(^5\)

The FCC previously attempted to fashion a regulatory scheme out of whole cloth using its Title I authority when it adopted its pre-1984 cable regulations.\(^5\) On three different occasions, the U.S. Supreme Court considered the question of the Commission's authority to issue these regulations. In the first case, \textit{U.S. v. Southwestern Cable Co.},\(^5\) the Supreme Court upheld an FCC enforcement action against a cable operator that had extended the carriage of a television signal outside its authorized Grade B contour without prior FCC authorization.\(^5\) The Court ruled that Section 2(a) of the Communications Act, which states that the Act applies "to all interstate and foreign communications by wire or radio," was sufficient to give the Commission jurisdiction over cable television.\(^5\) The Court expressly rejected arguments that Section 2(a) "[did] not independently confer regulatory authority upon the Commission, but instead merely prescribe[d] the forms of communication to which the Act's other provisions may separately be made applicable."\(^5\) The Court emphasized, however, "that the authority which we recognize today under [§2(a) of the Communications Act] is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting."\(^5\)

Four years later, the Supreme Court again considered the validity of an FCC rule governing cable television. In that case, \textit{Midwest Video I}, the Court upheld an FCC rule that required cable systems of 3,500 or more subscribers that retransmitted broadcast television stations to "operate[ ] to a significant extent as a local outlet by cablecasting and [to have] available facilities for local production and presentation of programming."\(^5\) The plurality upheld the rule as reasonably ancillary to the Commission's broadcast regulation because it served the same broadcasting policies.\(^6\) The plurality turned back objections that the local programming mandated by the FCC would not be transmitted over the broadcast spectrum, stating that "[t]he effect of the regulation, after all, is to assure that in the retransmission of broadcast signals viewers are provided suitably diversified programming."\(^5\) Chief Justice Burger concurred separately, tipping judgment in favor of the FCC. While Chief Justice Burger stated that "[c]oncord requires acknowledgement, for me at least, that the Commission's position strains the outer limits

---


\(^{52}\) See Computer and Communications Indus. Ass'n v. FCC, 693 F. 2d 198, 214-16 (D.C. Cir. 1982); Computer II, supra note 21, at 432-33. The Commission was later reversed to the extent that it attempted to assert jurisdiction over intrastate information services. See California v. FCC, 905 F.2d 1217, 1239-42 (9th Cir. 1990).

\(^{53}\) In the AOL-Time Warner merger, the FCC used its Title I authority to justify imposing merger conditions regarding Instant Messaging and Advanced IM-based high-speed services. Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferees, to AOL Time Warner Inc., Transferee, Memorandum Opinion and Order, 16 FCC Rcd. 6547, para. 148 (2001). The FCC has also used its Title I jurisdiction to require that voicemail and interactive menu services be accessible to people with disabilities. See Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecomm. Act of 1996, Report and Order and Further Notice of Inquiry, 16 FCC Rcd. 6417 (1999). Neither of these assertions of Title I jurisdiction was tested on appeal.


\(^{56}\) Id. at 160.

\(^{57}\) Id. at 167.

\(^{58}\) Id. at 171-72.

\(^{59}\) Id. at 178.


\(^{61}\) Id. at 669.

\(^{62}\) Id.
of even the open-ended and pervasive jurisdiction that has evolved by decisions of the Commission and the courts," and that he was "not fully persuaded that the Commission has made the correct decision in this case," he ultimately deferred to the Commission's judgment in the absence of congressional guidance.68

Four justices (a number equal to those joining the plurality) dissented vigorously, concluding that the FCC had gone beyond the powers delegated to it by the Congress. They concluded, "Congress is the agency to make the decision and Congress has not acted,"64 and "[t]here is not the slightest clue in the Act that CATV carriers can be compulsorily converted into broadcasters."65 The dissenters observed, "[t]he upshot of today's decision is to make the Commission's authority over activities 'ancillary' to its responsibilities greater than its authority over any broadcast licensee."66

The last shoe dropped seven years later in Midwest Video II.67 This time, the Court made clear that Midwest Video I was the high-water mark for the Commission's use of Title I jurisdiction to create affirmative regulations. Following Midwest Video I, the Commission had adopted regulations for cable systems with 3,500 or more subscribers by setting a minimum capacity of twenty channels and mandating that cable operators set aside four channels for public, educational, governmental and leased access.68 The rules also governed the cable system's permissible charges for such access. On appeal, citing Midwest Video I, the Commission argued that these rules promoted "long-established regulatory goals of maximization of outlets for local expression and diversification of programming—the objectives promoted by the rule sustained in Midwest Video [I]."69

In Midwest Video II, a majority of the Court70 held that the FCC had gone too far. Latching on to a portion of the Communications Act's definition of "common carriers" that excluded broadcasters, the Court concluded that the FCC had imposed common carrier obligations on cable operators, which it viewed as inconsistent with the editorial discretion given to broadcasters under the Act.71 In Midwest Video II, the Court acknowledged that it had relied on a restriction that did not explicitly limit cable regulation.72 But it turned to this provision of the Act in search of a limit on the Commission's ancillary authority.73

If anything, recent experience shows an even more skeptical view of the Commission's Title I authority. When the FCC attempted to use its Title I jurisdiction to require video description for television programs, the D.C. Circuit Court of Appeals struck down those rules as outside the Commission's authority.74 Notwithstanding Midwest Video I's origins in a rule mandating local content, the Court of Appeals held that Title I could not be a source of jurisdiction where the rules "significantly implicate program content."75

While not definitive, these cases show that a degree of caution is warranted in assuming—in the event the Commission relieves facilities-based common carriers of Computer II requirements to offer a separate, basic, common carrier transmission service—that the Commission has the authority to "backfill" affirmative regulations on entities that would now only be offering a Title I information service. Once broadband transmission is taken out of the "telecommunications service" pigeonhole, it may not be easy to impose new, affirmative obligations, even when the public interest may be compelling.

B. Brand X and City of Portland

In contrast to the path apparently being charted by the FCC, in two successive decisions, the Ninth Circuit held that cable modem services are not just information services, but are also "telecommunications services," for example, the offering of telecommunications to the public for a fee. In the first case, AT&T v. City of Portland,76 the Ninth Circuit rejected Portland's attempt to impose a multiple ISP carriage requirement on

---

63 Id. at 676 (Burger, C.J., concurring in result).
64 Id. at 677 (Justice Douglas, dissenting, joined by Justices Stewart, Powell and Rehnquist).
65 Id. at 680.
66 Id. at 681.
68 Id. at 691-94.
69 Id. at 699.
70 See id. (Writing for the majority, Justice White, who had joined the Midwest Video I plurality, was joined by Chief
71 Justice Burger and all of the Midwest Video I dissenters).
72 Id. at 699-706.
73 Id. at 706.
74 Id.
75 Motion Picture Ass'n of America, Inc. v. FCC, 309 F.3d 796 (D.C. Cir. 2002).
76 AT&T Corp. v. City of Portland, 216 F.3d 871 (9th Cir. 2000).
AT&T Broadband as a condition of the transfer of the Portland cable franchise from TCI to AT&T. The Ninth Circuit's analysis began rather unremarkably by observing that cable modem service "consists of two elements: a 'pipeline' (cable broadband instead of telephone lines) and the Internet service transmitted through that pipeline."\(^{77}\) After observing that the cable modem service provider "controls all of the transmission facilities between its subscribers and the Internet," the Ninth Circuit leapt to the conclusion that "to the extent that [the cable modem service] provides its subscribers Internet transmission over its cable broadband facility, it is providing a telecommunications service as defined by the Communications Act."\(^{78}\) On this basis, the Ninth Circuit held that Portland's multiple ISP access condition was an impermissible attempt to use the transfer of a cable franchise to condition the provision of a telecommunications service, and to require the provision of a telecommunications service through a cable franchise.\(^{79}\)

Three years later, the question of the proper statutory classification of cable-provided broadband services was again before the Ninth Circuit in Brand X v. FCC.\(^{80}\) In Brand X, even though the FCC in the interim since the City of Portland decision, had ruled that cable-provided broadband services were an offering of an information service that used a private carriage telecommunication, rather than an offering of a telecommunications service, the Ninth Circuit nonetheless reversed. As the concurring opinion made abundantly clear, however, the Ninth Circuit was not rendering a judgment on the reasonableness of the FCC's classification of cable-based broadband services,\(^{81}\) but was applying, under stare decisis, its prior holding from City of Portland that the transmission component was a telecommunications service.\(^{82}\)

While neither Portland nor the per curiam opinion in Brand X shed any light on why the Ninth Circuit initially concluded that cable modem transmission was a "telecommunications service," Judge Thomas, who was a member of both the Portland and Brand X panels, filed a lengthy concurrence in Brand X that provides some insight. Judge Thomas rejected the core assertion of the FCC's cable modem declaratory ruling, that "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."\(^{83}\) Drawing on Computer II and the dial-up structure, Judge Thomas could not accept the FCC's argument that by embedding transmission within an information service, a facilities provider could sell its service to the public without being characterized as a telecommunications service.\(^{84}\)

If the Brand X decision stands—and it may not—cable-based broadband likely would be classified as a telecommunications service. As such, cable operators offering cable modem service would be telecommunications carriers, subject to all of Title II's regulatory requirements, including the Computer II requirement that facilities-based common carriers offer basic transmission services separately from their information service, which would mean that competitors could purchase the transmission service. Whether or not tariffing applied to cable modem services would depend on whether the FCC decided to classify cable operators as dominant carriers, or as non-dominant providers.

These regulatory consequences under Title II

\(^{77}\) Id. at 878.

\(^{78}\) Id.

\(^{79}\) See id.; see also 47 U.S.C. §541(b)(3)(B) (2000) (prohibiting a franchising authority from "imposing[ing] any requirement under [Title VI of the Communications Act] that has the purpose or effect of prohibiting, limiting, restricting, or conditioning the provision of a telecommunications service by a cable operator or an affiliate thereof"); 47 U.S.C. §541(b)(3)(D) (2000) (stating that "a franchise authority may not require a cable operator to provide any telecommunications service or facilities, other than institutional networks, as a condition of the initial grant of a franchise, a franchise renewal, or a transfer of a franchise").

\(^{80}\) Brand X Internet Services v. FCC, 345 F.3d 1120 (9th Cir. 2003).

\(^{81}\) Id. at 1152-34 (O'Scannlain, J., concurring).

\(^{82}\) See Brand X, 345 F.3d at 1131.

\(^{83}\) Cable Modem Declaratory Ruling, supra note 40, at 4823. See also Brand X, 345 F.3d. at 1136 (Thomas, J., concurring).

\(^{84}\) Brand X, 345 F.3d at 1138-40 (Thomas, J., concurring) ("Someone still has to provide telecommunications service, even though the ISP's resale of this service to the public does not transform the ISP into an telecommunications service provider. In the integrated cable modem context, the same company provides these two, entirely separate services."). Other commentators have found the FCC's reasoning hard to swallow. See Rob Frieden, Adjusting the Horizontal and Vertical in Telecommunications Regulation: A Comparison of the Traditional and a New Layered Approach, 55 FED. COMM. L. J. 207, 232-33 (2003) (calling the FCC's Title I approach "disingenuous").
would not necessarily be permanent. At the federal level, the FCC has the authority under Section 10 of the Communications Act to forbear from enforcement of any Title II requirements. However, in contrast to the Title I approach, in which regulatory requirements would not exist until added, under the Brand X classification, regulations exist until forborne. Moreover, unless the Commission were to conclude that all broadband facilities and services provided over broadband are interstate, state regulatory requirements with respect to any intrastate services would remain in place unless they violated Section 253’s ban on state barriers to entry.

IV. BROADBAND SERVICES – DUOPOLY AND INTERCONNECTION.

A. The Regulatory Implications of Stable Duopoly

One of the more intriguing competition policy issues that carries through the debate over broadband regulation is whether broadband—particularly broadband transmission—is a stable duopoly for residential and small business customers, and if so, what is the proper regulatory prescription, if any. Although DSL and cable modem are the current marketplace broadband transmission technologies (with some satellite-based service), Dr. Stagg Newman, the Chair of the FCC’s Technology Advisory Council’s Broadband Working Group, has listed nine other technology platforms that “are capable now, or will be capable in the near future, of delivering most of the services.”

Although potential substitute technologies exist, their mere existence does not answer the question of whether they will be viable enough in the marketplace to provide a disruptive force. Dr. Newman concluded that “any new technology platform will be quite challenged in most markets to compete with the cable operators and incumbent telephone companies for the delivery of high-speed Internet access either on a stand-alone basis or in conjunction with other services.”

Even for terrestrial wireless using either licensed spectrum below 5 GHz or unlicensed spectrum—which he considered the best possibility for an alternative to cable and DSL—he noted:

Service providers using these technologies will be challenged to compete broadly for high speed Internet access. Customer acquisition and service and other non-technology costs are considerably greater than technology costs. Therefore scale and the availability to offer new service on an incremental basis to existing services confer a distinct advantage to incumbents.

In the first instance, of course, the Commission properly does not appear to be content to assume the permanence of, or worse, enshrine a technological duopoly. Even if near to medium term prospects are for duopoly, the Commission has continued to make spectrum available and to take other actions to enable new technological alternatives to develop with lower costs. This path by the Commission is apparent in its spectrum decisions, as well as in its decision to open a Notice of Inquiry into broadband over power lines.

But if duopoly of the underlying broadband facilities is persistent for some significant, non-transitory period, is this a matter for concern warranting regulation? On the one hand, in the Commission’s Echostar-Hughes Merger Order, the Commission raised significant concerns regarding a transaction that in many areas resulted in a merger to duopoly for multi-channel video programming. On the other hand, the Commission has (prop-

---

86 47 U.S.C. §253(a) (2000) (barring states and local governments from enacting laws or regulations that “prohibit or have the effect of prohibiting the ability of any entity from providing any interstate or intrastate telecommunications service”).
88 Id. at 1.
89 Id.
93 Id. at 20625. The Commission noted,
erly) been reluctant to use its traditional rate regulation authority to police alleged coordinated interactions among a small number of providers.94 It is not at all clear whether rate regulation through tariffing in a duopoly market would not do more harm than good—with respect to concerns of coordinated effects—because of the potential for the tariff mechanism itself to facilitate price coordination.

A core question would appear to be whether one believes that the owners of the two predominant facilities—cable and the ILEC—can use their ownership of broadband transmission facilities to limit the applications and content that ride over those facilities, and the devices that attach to those facilities. The debate of whether Computer II-type separate offering requirements should continue to be applied to ILEC DSL providers and should be extended—in the form of a multiple ISP requirement—to cable operators turns on this question. As Werbach explained, this debate “can thus be understood as a debate over whether [broadband transmission] operators can use their control of the physical layer ([broadband] distribution plant) to restrict choice and competition at the three higher levels [(logical, applications, content)].”95 Indeed, those who favor preserving Computer II requirements for ILECs providing DSL-based Internet access expressly make this argument.96

Some applications providers themselves have raised concerns that broadband transmission providers can control applications and content running over their networks. In the FCC’s Wireline Broadband Internet Access NPRM97 and Cable Modem NPRM98 rulemaking proceedings, a coalition of software applications and equipment providers has asked the FCC to ensure that consumers have a right to attach non-harmful customer premises equipment to broadband networks, and to preclude broadband transmission providers, and their affiliated ISPs, from discriminating against content or applications riding over those facilities, subject to content/application neutral limits on capacity.99 In general, cable and telephone equipment regulation has placed strict limits on cable operators’ and telecommunications carriers’ ability to constrain the equipment that can be attached to the network.100 A Title I classification for broadband network facilities could, however, put non-cable broadband facilities outside of these requirements.

Moreover, the expressed concerns about transmission layer operators impairing competing applications and content are not entirely hypothetical. With respect to analog television signals, for example, the FCC was presented with a complaint in which Gemstar claimed that Time Warner Cable had been stripping information from the vertical blanking interval that enabled use of Gemstar’s electronic programming guide.101 In that case, control of the physical layer was extended to preclude broadband transmission providers, and their affiliated ISPs, from discriminating against content or applications riding over those facilities, subject to content/application neutral limits on capacity.99 In general, cable and telephone equipment regulation has placed strict limits on cable operators’ and telecommunications carriers’ ability to constrain the equipment that can be attached to the network.100 A Title I classification for broadband network facilities could, however, put non-cable broadband facilities outside of these requirements.

Moreover, the expressed concerns about transmission layer operators impairing competing applications and content are not entirely hypothetical. With respect to analog television signals, for example, the FCC was presented with a complaint in which Gemstar claimed that Time Warner Cable had been stripping information from the vertical blanking interval that enabled use of Gemstar’s electronic programming guide.101 In that case, control of the physical layer was extended to preclude broadband transmission providers, and their affiliated ISPs, from discriminating against content or applications riding over those facilities, subject to content/application neutral limits on capacity.99 In general, cable and telephone equipment regulation has placed strict limits on cable operators’ and telecommunications carriers’ ability to constrain the equipment that can be attached to the network.100 A Title I classification for broadband network facilities could, however, put non-cable broadband facilities outside of these requirements.

Id.


95 Werbach, supra note 8, at 66.

96 See Whitt, supra note 8, at 55 ("T]he failure to appropriately regulate last-mile broadband facilities will allow those providers to extend their market power into the higher layers, including applications and content; this form of vertical integration would cause undue harm to the Internet.").

97 Wireline Broadband Internet Access NPRM, supra note 6.

98 Cable Modem Declaratory Ruling, supra note 40.

99 See Letter from Gerald Waldron to Marlene H. Dortch, Secretary, FCC (Oct. 1, 2003) (filed in FCC CC Dockets No. 02-83, 98-10, 95-20 and GN Docket No. 00-185, on behalf of the Coalition of Broadband Users and Innovators). The members of the Coalition of Broadband Users and Innovators are: American Electronic Ass’n, Alliance for Community Media, Amazon.com, Inc., Apple Computer, Inc., Association for Competitive Technology, Ass’n for Independent Video and Filmmakers, Ass’n for Local Telecommunications Services, Competitive Telecommunications Ass’n, Computing Technology Industry Ass’n, Consumer Electronics Ass’n, eBay Inc., Information Technology Ass’n of America, Media Access Project, Microsoft Corp., National Ass’n of Manufacturers, Radio Shack Corp., The Walt Disney Co., Yahoo! Inc. Letter from Coalition of Broadband Users and Innovators to Chairman Michael K. Powell, Commissioner Kathleen Q Abernathy, Commissioner Michael J. Copps and Commissioner Kevin Martin (Nov. 18, 2002) (filed in CC Dockets No. 02-83, 98-10 & 95-20, CS Docket No. 02-52 and GN Docket No. 00-185).


101 See In re Gemstar Int’l Group, Ltd. and Gemstar Dev.
tended to the application layer when the operator of the physical layer filtered content. Those that are seeking a "net neutrality" rule to be applied to applications and content transmitted over broadband transmission facilities seek protection against just this type of behavior by facilities-based ISPs that may seek to advantage their own applications and content.\textsuperscript{102} Again, if broadband transmission is classified as a private telecommunications component of a Title I information service, rather than as a telecommunications service, then Section 202's protections against unjust or unreasonable discrimination\textsuperscript{103} would not be applicable, and no non-discrimination requirement would apply in the absence of a new, affirmative Title I-based rule.

As it resolves issues of multiple ISP access on cable systems, whether to continue the Computer II separate offering requirements, and requests for "net neutrality" rules, the Commission will have to reach a judgment about the likely ability of duopoly technologies to leverage control of transmission facilities to affect competition in applications and content. And, even if it does conclude that there is the potential for such competitive harm, the Commission also will have to make a judgment regarding how long the transmission providers may continue to have such an ability, and whether the benefits of addressing any potential anticompetitive conduct outweigh the costs.

B. Interconnection and Network Effects

A second set of issues affecting broadband networks and services provided over those networks is interconnection requirements. This will be an issue that needs to be addressed, particularly with respect to VoIP services, which will in many instances seek to interconnect with the Public Switched Telephone Network ("PSTN"). And, it could become a concern issue with respect to broadband network providers themselves.

It is important to recognize that market power from interconnection is not the same as market power from control of limited underlying facilities. As was reflected in the Department of Justice's and European Union's consideration of the proposed Worldcom/Sprint and MCI/Worldcom mergers, as well as the Department of Justice's disposition of WorldCom's acquisition of Intermedia, competition policy issues can be raised when one network is, or threatens to become, large enough that it has an incentive to deny interconnection to other networks in order to drive the other networks' subscribers to the larger network.\textsuperscript{104} Significantly, the levels of market share at which network "tipping" became a significant concern to antitrust authorities was much lower than current incumbent LEC market shares of traditional circuit switched lines.

Using VoIP as an example, these cases suggest the possibility that an ILEC could have the incentive and ability to deny interconnection to a VoIP provider, absent regulation. By refusing interconnection, the ILEC would not allow VoIP users to reach, or be reached by callers on the PSTN, thereby dramatically diminishing the value of VoIP services. Alternatively, such interconnection could be priced in a manner that could severely limit the development of VoIP.

---

\textsuperscript{102} Letter from Gerald Waldron to Marlene H. Dortch, supra note 99, at 11. As described in a recent \textit{ex parte}, the Coalition of Business Users and Innovators urges the Commission to adopt "a simple safeguard to prohibit a broadband service provider from, on a discriminatory or unreasonable basis, interfering with or impairing subscribers' ability to use their broadband service to access lawful Internet content or services, use applications or services in connection with their broadband service, or attach nonharmful devices to the network." \textit{Id.}


\textsuperscript{104} See Complaint of United States at 14-15, United States v. WorldCom Inc. and Sprint Corp., Civil Action No. 1:00 CV 01526 (D.D.C. filed June 27, 2000) (alleging that a combined 53% share of Internet traffic sent to or from customers of the fifteen largest Internet backbones in the United States would be anticompetitive); Commission Decision Declaring a Concentration to be Compatible with the Common Market and the Functioning of the EEA Agreement, 1999 O.J. (L 116) 1, at http://europa.eu.int/eur-lex/en/archive/2004/1_09220040530en.html (last visited Aug. 21, 2004); Complaint of United States at 11, United States v. Worldcom Inc. and Intermedia Communications Inc., No. 1:00 CV 02789 (D.D.C. filed Nov. 17, 2000) (alleging that the combination of the WorldCom and Intermedia backbones, which was less than the proposed WorldCom/Sprint combination, could have led to anticompetitive harms due to "tipping").
Title II's interconnection requirements, as embodied in Sections 251 and 252, however, only apply to "telecommunications carriers." Thus, if VoIP is an information service, the ILEC could argue that a VoIP provider is not entitled to interconnection under the Act. While VoIP providers could then contract or affiliate with a Competitive Local Exchange Carrier ("CLEC") to provide interconnection services (in essence becoming a customer of a CLEC so that the CLEC can use its interconnection rights to connect the VoIP provider to the PSTN), there is little doubt that these arrangements will also engender litigation and confusion, particularly where the CLEC and VoIP provider are affiliates. There may be no other alternative, however, unless the Commission uses its Title I authority to require ILECs to interconnect with information service providers.

V. CONCLUSION

The rise of broadband, and IP services more generally, creates real challenges in applying the 1934 Act's regulatory framework. It is a case of round pegs and square holes. But until Congress gets around to revising the Act, round pegs may be the only alternative. In this environment, it will be critical for the Commission to recognize that once it embarks down a particular classification, it may not be easy to turn back. The courts will have a substantial role in affirming or reversing classification choices, and also in reviewing any attempts by the Commission to write new regulations under Title I. Where, as a policy matter, the wisdom of selecting a Title I classification turns upon the Commission's ability to write regulations to address public interest regulations under Title I, the Commission must consider the public interest consequences should the courts reject its jurisdiction to impose new regulations.
