NEITHER FISH NOR FOWL: NEW STRATEGIES FOR SELECTIVE REGULATION OF INFORMATION SERVICES

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INTRODUCTION

The Federal Communications Commission ("FCC" or "Commission"), with subsequent Congressional¹ and judicial validation,² has created a dichotomy between telecommunications³ and information services⁴ with an eye toward pursuing a deregulatory agenda and removing any disincentives for investing in next generation network infrastructure. The Commission seeks to apply traditional common carrier regulation⁵ only to telecommunications service providers and to reduce the applicable regulatory requirements even for most of these carriers.⁶ The FCC considers the information service provider status a

- 1. 47 U.S.C. § 151 (2006).
- 2. Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967 (2005).
- 3. 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." 47 U.S.C. § 153(43). Telecommunications service "means 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." *Id.* § 153(46). The Communications Act defines telecommunications carrier as:

[A]ny provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226 of this title). A telecommunications carrier shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage.

Id. § 153(44).

4. Information service is defined as:

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

- Id. § 153(20). "The language and legislative history of . . . [the Communications Act of 1996] indicate that the drafters . . . regarded telecommunications services and information services as mutually exclusive categories." Fed.-State Joint Bd. on Universal Serv., Report to Congress, 13 FCC Rcd. 11,501, 11,522-23 (1998); see also Vonage Holdings Corp. v. Minn. Pub. Utils. Comm'n, 290 F. Supp. 2d 993, 1000 (2003) (applying the FCC's dichotomy). While information service providers use telecommunications to transmit bitstreams, the FCC has chosen not to separate this functionality from the information processing that also occurs. In other words the FCC considers telecommunications to be subordinate to and fully integrated with the predominant information service.
- 5. Title II of the Communications Act, as amended, requires providers of basic telecommunications services to operate on a nondiscriminatory basis, providing services on just and reasonable charges and also subject to numerous entry regulations, tariffing, interconnection, and operating requirements. 47 U.S.C. §§ 201-02.
- 6. For example, Section 10 of the Telecommunications Act (codified at 47 U.S.C. §§ 160(a)(1)-(3)) authorizes the FCC to forbear from applying specific aspects of Title II regulation if enforcement of such regulation is no longer necessary to ensure just and reasonable charges, is not necessary for protecting consumers and forbearance would serve the public interest.

deregulatory "safe harbor" and the Commission aggressively seeks to make it available to both new and existing services.8

However, the FCC may have overreached with its deregulatory campaign because the Commission has overestimated the scope of actual and potential competition⁹ and because on several occasions the Commission has had to impose new regulatory requirements on ventures that otherwise qualify for the information service deregulatory safe harbor, such as Internet¹⁰ access. The need to impose new regulatory burdens, even for information service providers, has forced the FCC to devise several strategies that remarkably have passed judicial review by demonstrating plausible compliance with applicable statutes or a reasonable use of the broad, "ancillary" regulatory authority¹¹ to further the goals contained in Title I of the Communications Act.¹²

^{7.} A safe harbor constitutes "1. An area or means of protection [or] 2. A provision (as in a statute or regulation) that affords protection from liability or penalty." BLACK'S LAW DICTIONARY 1363 (8th ed. 2004). The DMCA provides qualified immunity from liability for direct or secondary infringement of copyrighted material that traverses an ISP's network. "Congress enacted the safe harbors in response to concerns expressed by online service providers about their potentially overwhelming liability for copyright infringement committed by their users." Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1369 (2004).

^{8.} See, e.g., Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks, *Declaratory Ruling*, 22 FCC Rcd. 5901 (2007) [hereinafter Wireless Treatment].

^{9.} See FCC, WIRELINE COMPETITION BUREAU, HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF JUNE 30, 2006 3 (2007) [hereinafter WCB REPORT], available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-270128A1.pdf ("The Commission's data collection program requires providers to list the Zip Codes in which the provider has at least one high-speed connection in service to an end user"); S. DEREK TURNER, FREE PRESS, BROADBAND REALITY CHECK: THE FCC IGNORES AMERICA'S DIGITAL DIVIDE 2 (2005), available at http://www.freepress.net/docs/broadband_report.pdf ("No consideration is given to the price, speed or availability of connections across the ZIP code")

^{10.} See generally James B. Speta, FCC Authority to Regulate the Internet: Creating It and Limiting It, 35 LOY. U. CHI. L.J. 15, 31 (2003) ("The Internet is a network of networks, and its utility largely depends on the principle of universal interconnectivity. This is true both as a technical and as an economic matter."); Susan Landau, National Security on the Line, 4 J. ON TELECOMM. & HIGH TECH. L. 409, 424 (2006) ("In particular, the routes packets traverse [are] dynamically determined through addresses carried in the packets themselves. If a particular communication link is busy, the packet will be routed through a less-congested path. In theory – this occurs much less often in practice – each packet of a communication may travel a different route to its destination.").

^{11.} IP-Enabled Servs., First Report & Order & Notice of Proposed Rulemaking, 20 FCC Rcd. 10,245, 10,261 (2005) [hereinafter E911 First Report and Order] (citing Sw. Cable Co., 392 U.S. at 177-78) ("Ancillary jurisdiction may be employed, in the Commission's discretion, when Title I of the Act gives the Commission subject matter jurisdiction over the service to be regulated and the assertion of jurisdiction is 'reasonably ancillary to the effective performance of [its] various responsibilities." (qouting Sw. Cable Co., 392 U.S. at 178)), petition for review denied by Nuvio Corp. v. F.C.C., 473 F.3d 302 (D.C. Cir. 2006).

^{12. 47} U.S.C. § 151; see J. Steven Rich, Brand X and the Wireline Broadband Report and Order: The Beginning of the End of the Distinction Between Title I and Title II Services,

To preserve the information service deregulatory safe harbor, while imposing selected new regulatory requirements, the FCC has engaged in creative statutory construction that relies on subtle and metaphysical differences between telecommunications and telecommunications service, offering versus providing telecommunications, and information services when defined in a communications statue versus a law enforcement statute. Because the information service safe harbor forecloses application of traditional telecommunications service regulation, pursuant to Title II of the Communications Act, the FCC has extraordinarily stretched its "ancillary" jurisdiction under Title I of the Communications Act to achieve the necessary statutory mandate for selective re-regulation.

To establish a statutory nexus for selective regulation of information services, the FCC has engaged in creative semantic juggling that establishes a dichotomy between telecommunications provided in conjunction with an information service and telecommunications services offered on a stand-alone basis.¹³ Even though the FCC addresses the same bit transmission pathways in both classifications, the Commission used the telecommunications/telecommunications service dichotomy to expand the deregulatory safe harbor to include previously regulated telephone company provided Internet access using retrofitted copper wire local loops, viz., Digital Subscriber Line ("DSL") service¹⁴ as well as cable modem Internet access¹⁵ via retrofitted cable television networks.

Technological and market convergence¹⁶ increasingly makes it difficult for the FCC to assign services into mutually exclusive categories,

⁵⁸ FED. COMM. L.J. 221 (2006).

^{13.} See Rob Frieden, What Do Pizza Delivery and Information Services Have in Common? Lessons From Recent Judicial and Regulatory Struggles with Convergence, 32 RUTGERS COMPUTER. & TECH. L.J. 247 (2006).

^{14.} Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, *Report & Order & Notice of Proposed Rulemaking*, 20 FCC Rcd. 14,853 (2005) [hereinafter Appropriate Framework], *petition for review denied by* Time Warner Telecom, Inc. v. F.C.C., 507 F.3d 205 (3d Cir. 2007).

^{15.} Inquiry Concerning High-Speed Access to Internet Over Cable and Other Facilities, *Declaratory Ruling & Notice of Proposed Rulemaking*, 17 FCC Rcd. 4798 (2002) [hereinafter Cable Inquiry], *aff'd in part, vacated in part*, Brand X Internet Servs. v. F.C.C., 345 F.3d 1120 (9th Cir. 2003), *rev'd and remanded, Brand X*, 545 U.S. 967.

^{16.} Ryan K. Mullady, Regulatory Disparity: The Constitutional Implications of Communications Regulations That Prevent Competitive Neutrality, 7 U. PITT. J. TECH. L. & POL'Y 4 (2007) ("Over the last two decades, the communications industry has undergone rapid technological advancements leading to the convergence of services. New technological capabilities allow companies to compete in markets which previously had no competition. While potentially beneficial to the consumer, convergence within the communications industry has created a regulatory nightmare."); see generally INT'L TELECOMM. UNION, DIGITAL.LIFE: ITU INTERNET REPORT 2006 (2006), available at http://www.itu.int/osg/spu/publications/digitalife/docs/digital-life-web.pdf.

a task it considers compulsory.¹⁷ Likewise, the FCC has begun to face the need to impose regulatory safeguards and requirements on ventures that have qualified for designation as information service providers, or could so qualify if the Commission consistently applied definitions now codified in the Communications Act of 1934, as amended.¹⁸ Such transparency would present the FCC with a major deregulatory quandary because having already attributed the information service classification to Internet access services provided by cable modem and DSL connections, the Commission must resort to clever and intellectually suspect semantic maneuvering to avoid attributing the same status to software applications delivered via these connections such as Voice over Internet Protocol ("VoIP")¹⁹ voice communications services.

VoIP services challenge the telecommunications/information service

^{17. &}quot;In keeping with the legislative history of the Communications Act, the Commission interprets that Act's definitions of 'telecommunications service' and 'information service' to be mutually exclusive." Commc'ns Assistance for Law Enforcement Act and Broadband Access and Servs., First Report & Order & Further Notice of Proposed Rulemaking, 20 FCC Rcd. 14,989, 14,996 (2005) [hereinafter CALEA Implementation] (citing Fed.-State Joint Bd. on Universal Serv., Report to Congress, 13 FCC Rcd. 11,830, ¶¶ 39, 43 (1998)); CALEA Implementation, supra at 14,994-98 (describing this mutual exclusivity with respect to facilities-based wireline broadband Internet access services).

^{18.} Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (codified as amended in scattered sections of 47 U.S.C.).

^{19.} Voice over Internet Protocol ("VoIP") offers voice communications capabilities, much like ordinary telephone service, using the packet switched Internet, for all or part of the link between call originator and call recipient. VoIP calls originating or terminating over the standard, dial-up telephone network require conversion from or to the standard telephone network's architecture that creates a dedicated "circuit-switched" link, as opposed to the ad hoc, "best efforts" packet switching used in the Internet. See Mark C. Del Bianco, Voices Past: The Present and Future of VoIP Regulation, 14 COMMLAW CONSPECTUS 365 (2006); Robert Cannon, State Regulatory Approaches to VoIP: Policy, Implementation, and Outcome, 57 FED. COMM. L.J. 479 (2005); Robert M. Frieden, Dialing for Dollars: Should the FCC Regulate Internet Telephony?, 23 RUTGERS COMPUTER & TECH. L.J. 47 (1997); Chérie R. Kiser & Angela F. Collins, Regulation on the Horizon: Are Regulators Poised to Address the Status of IP Telephony?, 11 COMMLAW CONSPECTUS 19 (2003); Sunny Lu, Note, Cellco Partnership v. FCC & Vonage Holdings Corp. v. Minnesota Public Utilities Commission: VoIP's Shifting Legal and Political Landscape, 20 BERKELEY TECH. L.J. 859, 862 (2005). For technical background on how VoIP works, see International Engineering Web ProForums: Voice over Internet http://www.iec.org/online/tutorials/int_tele/ (last visited Apr. 10, 2008); Susan Spradley & Alan Stoddard, Powerpoint Presentation to the FCC Office of Engineering & Technology: Tutorial on Technical Challenges Associated with the Evolution to VoIP (Sept. 22, 2003), available at http://www.fcc.gov/oet/tutorial/9-22-03_voip-final_slides_only.ppt; see also Stephen E. Blythe, The Regulation of Voice-Over-Internet-Protocol in the United States, the European Union, and the United Kingdom, 5 J. HIGH TECH. L. 161 (2005); Jerry Ellig & Alastair Walling, Regulatory Status of VoIP in the Post-Brand X World, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 89 (2006); R. Alex DuFour, Voice Over Internet Protocol: Ending Uncertainty and Promoting Innovation Through a Regulatory Framework, 13 COMMLAW CONSPECTUS 471 (2005); Amy L. Leisinger, Note, If It Looks Like a Duck: The Need for Regulatory Parity in VoIP Telephony, 45 WASHBURN L.J. 585 (2006).

regulatory dichotomy because some offer a functional equivalent and competitive alternative to local and long distance telephone service, while others provide a communications link for an activity that typically does not include a telephone call, e.g., video games. On the other hand, all provide these services using software and other applications typically accessed by consumers via cable modem and DSL links already classified as information services. If the Commission classified VoIP as a telecommunications service, the decision would cast doubt on the rationality and lawfulness of imposing regulatory burdens on packagers of software enabled services that ride along a bitstream generated by information service providers ("ISPs"). If the FCC classified VoIP as an information service, this decision would exempt VoIP from conventional telecommunications service regulation under Title II of the Communications Act and would force the FCC to invoke ancillary jurisdiction to apply regulatory safeguards and requirements, otherwise applicable only to telecommunications service providers, based on a general public interest mandate contained in Title I of the Communications Act.

Even as it avoids deciding which regulatory classification applies to VoIP services, the FCC has received rulemaking and declaratory ruling petitions that have obligated it to make several decisions resulting in the imposition of regulatory burdens on VoIP and the partial re-regulation of information services, including DSL and cable modem service. Faced with the need to shore up a subsidy mechanism for supporting universal access to basic telephone services via a surcharge on voice telephony minutes of use, the Commission now requires VoIP service providers to make contributions to the Universal Service Fund. Responding to public safety concerns about VoIP customer access to emergency telephone services, the FCC now requires VoIP service providers to retrofit their networks to support E9-1-1 calling 22 and access by disabled users 3 and to enable new subscribers to use previously assigned and used telephone numbers. In response to national security concerns expressed by government agencies such as the Department of

^{20.} See CALEA Implementation, supra note 17, at 15,001.

^{21.} Universal Serv. Contribution Methodology, *Report & Order & Notice of Proposed Rulemaking*, 21 FCC Rcd. 7518 (2006) [hereinafter Contribution Methodology] (extending Section 254(d) permissive authority to require interconnected VoIP providers to contribute to the Universal Service Fund), *review granted in part, vacated in part*, Vonage Holdings Corp. v. F.C.C., 489 F.3d 1232 (D.C. Cir. 2007).

^{22.} E911 First Report and Order, supra note 11.

^{23.} IP-Enabled Servs., *Report & Order*, 22 FCC Rcd. 11,275 (2007) [hereinafter Access to Telecommunications Service].

^{24.} Telephone Number Requirements for IP-Enabled Servs. Providers, *Report & Order, Declaratory Ruling, Order on Remand, & Notice of Proposed Rulemaking*, 22 FCC Rcd. 19,531 (2007) [hereinafter Telephone Number Requirements].

Justice, the FCC has found a way to interpret the Communications Assistance for Law Enforcement Act ("CALEA") as requiring wiretapping by VoIP service providers and all providers of broadband access to the Internet, despite an express exemption on applying CALEA to providers of "information services."

The FCC has avoided having to classify VoIP, while nevertheless applying some of the regulatory burdens traditionally borne exclusively by telecommunications service providers. The Commission's strategy combines an invocation of broad public interest regulatory authority under Title I of the Communications Act, as amended, with a focus on the telecommunications transmission link in VoIP. When the FCC wants to subject VoIP services to regulatory requirements, it finds a way to emphasize the telecommunications component, but when the FCC wants to eschew regulation, the very same telecommunications component becomes a subordinate, unseverable, and integrated component of a cable modem, DSL, power line, ²⁶ or wireless²⁷ information service.

This Article will examine whether and how the FCC can support a campaign to deregulate or treat as outside its jurisdiction many next generation network services while at the same time imposing financially

^{25.} The Communications Assistance for Law Enforcement Act (CALEA) requires, *interalia*, that:

[[]A] telecommunications carrier shall ensure that its equipment, facilities, or services that provide a customer or subscriber with the ability to originate, terminate, or direct communications are capable of - (1) expeditiously isolating and enabling the government, pursuant to a court order or other lawful authorization, to intercept, to the exclusion of any other communications, all wire and electronic communications carried by the carrier within a service area to or from equipment, facilities, or services of a subscriber of such carrier concurrently with their transmission to or from the subscriber's equipment, facility, or service, or at such later time as may be acceptable to the government \dots

⁴⁷ U.S.C. § 1002(a). However, it explicitly exempts providers of information services from having to provide wiretapping assistance. *Id.* § 1002(b)(2)(A). CALEA defines "information services" as:

[[]T]he offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications; and (B) includes— (i) a service that permits a customer to retrieve stored information from, or file information for storage in, information storage facilities; (ii) electronic publishing; and (iii) electronic messaging services; but (C) does not include any capability for a telecommunications carrier's internal management, control, or operation of its telecommunications network.

Id. § 1001(6).

^{26.} See United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service, Memorandum Opinion & Order, 21 FCC Rcd. 13,281 (2006) (extending the information service deregulatory safe harbor to broadband over power line networks).

^{27.} See Wireless Treatment, supra note 8 (extending the information service deregulatory safe harbor to wireless broadband networks).

burdensome requirements and regulatory duties on some ventures that fit within the information service provider classification. The FCC has erected a regime largely predisposed to treating next generation services as information services free of interconnection, unbundling, tariffing, line sharing, and other requirements Title II of the Communications Act requires the FCC to impose. To support its deregulatory mission, the FCC has found ways to subordinate the telecommunications components in a service that blends telecommunications transmission of bits with information services. For example, in reclassifying DSL from a telecommunications service to an information service, the FCC combined the need for deregulatory parity with a new finding that the once stand-alone telecommunications service characteristic of DSL had become inextricably integrated with information services with the latter predominating.

Notwithstanding the urge to deregulate, either on rational or doctrinal grounds, the Commission has had to confront the fact that competition alone will not ensure the achievement of all Congressionally mandated or FCC identified public interest objectives. Even with actual or prospective competition, the wholesale abdication of regulatory oversight leaves the FCC in a precarious legal position if, and when, it needs to reassert regulatory oversight as has occurred on several occasions for VoIP services²⁸ and once for all types of broadband Internet access information services.²⁹

The Article concludes that Title I provides a shaky foundation to support regulation particularly in the absence of separate legislation supporting jurisdiction. The Article also concludes that the FCC cannot expect to continue expanding its Title I regulatory wingspan based on current success in convincing reviewing courts to defer to its expertise.

I. TELECOMMUNICATIONS SERVICES VERSUS INFORMATION SERVICES

For over thirty years, the FCC has confronted the challenge of how to manage the scope and nature of its regulatory oversight in the face of

^{28.} See, e.g., Contribution Methodology, supra note 21 (requiring VoIP providers that provide access to the public switched telephone network to contribute to universal service funding); E911 First Report and Order, supra note 11 (requiring VoIP service providers to support enhanced emergency 911 dialing access); Access to Telecommunications Service, supra note 23 (requiring interconnected VoIP providers to offer 711 abbreviated dialing access to traditional relay services via a voice telephone or a text telephone (TTY)); Telephone Number Requirements, supra note 24 (extending local number portability obligations to interconnected VoIP to ensure that their customers can retain their existing telephone numbers when changing telephone providers).

^{29.} Comme'ns Assistance for Law Enforcement Act and Broadband Access and Servs., Second Report & Order & Memorandum Opinion & Order, 21 FCC Rcd. 5360 (2006).

converging telecommunications and information processing technologies. With rare exception, Congress has refrained from providing the Commission with specific definitions and direction on what, if any, regulatory oversight should apply. Left to its own devices, the FCC first erected a regulatory dichotomy between "basic" and "enhanced" services³⁰ with the expectation that the two classifications were mutually exclusive: telephone companies would provide basic services that other ventures, including separated affiliates of telephone companies, would use to carry advanced services.

The judge presiding over the federal government's antitrust suit against AT&T crafted a similar dichotomy³¹ and, in 1996, Congress enacted legislation that created the terms telecommunications service and information service to achieve the same goal.³² Throughout the years, with only minor modifications, the FCC applied traditional telecommunications common carrier regulation to carriers providing the basic transmission links for advanced information services that the FCC would not regulate. The FCC eventually eliminated the requirement that telephone companies pursue enhanced services via separate subsidiaries,³³ but the Commission retained the expectation that it could

^{30.} Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Final Decision, 77 F.C.C.2d 384, ¶¶ 113-15 (1980), aff'd sub nom. Computer & Commc'ns. Indus. Ass'n v. F.C.C., 693 F.2d 198 (D.C. Cir. 1982), cert. denied sub nom. La. Pub. Serv. Comm'n v. F.C.C., 461 U.S. 938 (1983); see Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Memorandum Opinion & Order, 84 F.C.C.2d 50 (1980); Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Memorandum Opinion & Order on Further Reconsideration, 88 F.C.C.2d 512 (1981); see also Robert M. Frieden, The Computer Inquiries: Mapping the Communications/Information Processing Terrain, 33 FED. COMM. L.J. 55 (1981).

^{31.} See United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 186-94 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983). The Bell Operating Companies, spun off from AT&T, received authorization to provide information services in 1991. United States v. W. Elec. Co., 767 F. Supp. 308, 332 (D.D.C. 1991), aff'd, 993 F.2d 1572 (D.C. Cir. 1993).

^{32.} See 47 U.S.C. § 151.

^{33.} Without any actual measurement of whether structural separation caused ILECs to operate inefficiently or to lose operational synergies, the Commission subsequently eliminated structural safeguards. See Computer III Further Remand Proceedings: Bell Operating Co. Provision of Enhanced Servs., Further Notice of Proposed Rulemaking, 13 FCC Rcd. 6040 (1998), rule modification granted by 14 FCC Rcd. 4289 (1999), reconsideration granted in part by 14 FCC Rcd. 21,628 (1999); Computer III Remand Proceedings: Bell Operating Co. Safeguards and Tier 1 Local Exchange Co. Safeguards, Report & Order, 6 FCC Rcd. 7571 (1991), vacated in part, California v. F.C.C., 39 F.3d 919 (9th Cir. 1994); Computer III Remand Proceedings, Report & Order, 5 FCC Rcd. 7719 (1990); Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Memorandum Opinion & Order on Further Reconsideration & Second Further Reconsideration, 4 FCC Rcd. 5927 (1989); Amendment to Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Report & Order, 2 FCC Rcd. 3072 (1987), modified on reconsideration by 3 FCC Rcd. 1150 (1988), vacated and remanded, California v. F.C.C.,

conceptually separate basic telecommunications services from enhanced information services.

This dichotomy has become technologically unsustainable and has motivated the FCC to come up with increasingly suspect rationales for shoehorning more and more services into the largely unregulated information service safe harbor, despite an ongoing need for some types of government oversight, including consumer protection, network reliability, and national security. Converging telecommunications and information processing technologies prevent the FCC from easily compartmentalizing services into one or the other regulatory classification. Similarly, ventures that used to operate only in the telecommunications sector now find it essential to find new revenue generators in the information services sector, including Internet access and Internet-mediated services that can include video programming. Nevertheless, the FCC and reviewing courts have supported the dichotomy, using painstaking deconstruction of the difference between telecommunications and telecommunications service, as well as the difference between offering and providing telecommunications.

A. The Supreme Court Endorses Cable Modem Internet Access as an Information Service

In *Brand X*, a majority of the Supreme Court endorsed the FCC's information service classification for cable modem service.³⁴ Using the *Chevron*³⁵ standard, which supports deference to administrative agency decision-making that reasonably interprets and implements statutory language,³⁶ the Court cleared the way for the FCC not only to create a lightly regulated information service safe harbor for both cable modem and DSL³⁷ high speed broadband access services, but also to address and

⁹⁰⁵ F.2d 1217 (9th Cir. 1990); Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Memorandum Opinion & Order on Further Reconsideration, 3 FCC Rcd. 1135 (1988); Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Memorandum Opinion & Order on Reconsideration, 2 FCC Rcd. 3035 (1987), vacated and remanded, California, 905 F.2d 1217; Amendment of Sections 64.702 of the Comm'ns Rules and Regulations (Third Computer Inquiry), Report & Order, 104 F.C.C.2d 958 (1986); see also Robert M. Frieden, The Third Computer Inquiry: A Deregulatory Dilemma, 38 FED. COMM. L. J. 383 (1987).

^{34.} Brand X, 545 U.S. 967.

^{35.} Chevron U.S.A., Inc. v. Natural Res. Def. Council, 467 U.S. 837, 843-44 (1984).

^{36.} Brand X, 545 U.S. at 980 (citing Chevron, 467 U.S. at 843-44 & n.11) ("If a statute is ambiguous, and if the implementing agency's construction is reasonable, Chevron requires a federal court to accept the agency's construction of the statute, even if the agency's reading differs from what the court believes is the best statutory interpretation.").

^{37.} The majority opinion recognized the likelihood of a future reclassification for DSL services and had no problem with that outcome:

The Commission's decision appears to be a first step in an effort to reshape the way

resolve other complex technological issues with the Court's blessing:

The questions the Commission resolved in the order under review involve a "subject matter that is technical, complex, and dynamic." The Commission is in a far better position to address these questions than we are. Nothing in the Communications Act or the Administrative Procedure Act makes unlawful the Commission's use of its expert policy judgment to resolve these difficult questions.³⁸

A majority of the Court agreed that the FCC could reasonably have concluded that cable modems solely provide an information service, despite the use of telecommunications to link subscribers with content.³⁹ Accordingly, the Court reversed the Ninth Circuit Court of Appeal's prior determination that a separate and identifiable telecommunications service element existed on grounds that the *Chevron* precedent supported the FCC's statutory construction: "A court's prior judicial construction of a statute trumps an agency construction otherwise entitled to *Chevron* deference only if the prior court decision holds that its construction follows from the unambiguous terms of the statute and thus leaves no room for agency discretion."⁴⁰

The Court's majority decision accepted the FCC's telecommunications and telecommunications service dichotomy as the basis for concluding that cable modem Internet access constituted an information service because the telecommunications component was a

the Commission regulates information-service providers; that may be why it has tentatively concluded that DSL service provided by facilities-based telephone companies should also be classified solely as an information service. The Commission need not immediately apply the policy reasoning in the *Declaratory Ruling* to all types of information-service providers. It apparently has decided to revisit its longstanding *Computer II* classification of facilities-based information-service providers incrementally. Any inconsistency between the order under review and the Commission's treatment of DSL service can be adequately addressed when the Commission fully reconsiders its treatment of DSL service and when it decides whether, pursuant to its ancillary Title I jurisdiction, to require cable companies to allow independent ISPs access to their facilities.

Brand X, 545 U.S. at 1002 (citations omitted).

38. Id. at 1002-03 (citations omitted).

39. Id. at 996-97.

In sum, if the Act fails unambiguously to classify non-facilities-based information-service providers that use telecommunications inputs to provide an information service as "offerors" of "telecommunications," then it also fails unambiguously to classify facilities-based information-service providers as telecommunications-service offerors; the relevant definitions do not distinguish facilities-based and non-facilities-based carriers. That silence suggests, instead, that the Commission has the discretion to fill the consequent statutory gap.

Id

subordinate and unseverable component, not separately offered.⁴¹ The majority used several analogies to support the view that the FCC could lawfully ignore or subordinate the telecommunications function as something integrated into an information service, but not offered on a stand-alone basis. The majority's analogies provided examples in which a venture offers a number of services, many of which can be combined into a consolidated package, and others that are made available, but that are not essential. In the former, the majority noted that car dealers sell cars and not a collection of integrated components, such as an engine and chassis.⁴² The majority also rejected competing analogies offered by Justice Scalia in dissent by noting that customers can pick up pizzas rather than have them delivered and similarly can purchase dog leashes at pet stores without also having to purchase a dog.⁴³

Because ambiguity exists as to the functional integration or separateness of telecommunications, the Court majority gladly deferred to the FCC.⁴⁴ The Court noted that the nature and scope of integration between telecommunications and information processing "turns not on the language of the [Communications] Act, but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance."

41. Id. at 989.

Cable companies in the broadband Internet service business "offer" consumers an information service in the form of Internet access and they do so "via telecommunications," but it does not inexorably follow as a matter of ordinary language that they also "offer" consumers the high-speed data transmission (telecommunications) that is an input used to provide this service

Brand X, 545 U.S. at 989 (citations omitted).

42. Id.

43. Id. at 991.

In response, the dissent argues that the high-speed transmission component necessary to providing cable modem service is necessarily "offered" with Internet service because cable modem service is like the offering of pizza delivery service together with pizza, and the offering of puppies together with dog leashes. The dissent's appeal to these analogies only underscores that the term "offer" is ambiguous in the way that we have described. The entire question is whether the products here are functionally integrated (like the components of a car) or functionally separate (like pets and leashes). That question turns not on the language of the Act, but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance.

Id. (citations omitted).

^{44.} Because "the statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering," the majority asserted that "federal telecommunications policy in this technical and complex area . . . [should] be set by the Commission, not by warring analogies." *Id.* at 992.

^{45.} *Id.* at 991.

While deploring the use of "warring analogies," the majority nevertheless offered analogies that support the FCC's interpretation of what constitutes a service offering versus integration of one function into a broader package of service elements:

We also do not share the dissent's certainty that cable modem service is so obviously like pizza delivery service and the combination of dog leashes and dogs that the Commission could not reasonably have thought otherwise. For example, unlike the transmission component of Internet service, delivery service and dog leashes are not integral components of the finished products (pizzas and pet dogs). One can pick up a pizza rather than having it delivered, and one can own a dog without buying a leash. By contrast, the Commission reasonably concluded, a consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing. In any event, we doubt that a statute that, for example, subjected offerors of "delivery" service (such as Federal Express and United Parcel Service) to common-carrier regulation would unambiguously require pizza-delivery companies to offer their delivery services on a common-carrier basis.⁴⁷

In a dissenting opinion, Justice Scalia did not agree with the majority opinion that the FCC could lawfully⁴⁸ and practically treat the telecommunications link as inseparable from the predominant information processing services provided. He disputed the FCC's view that cable television companies do not provide a telecommunications service when linking subscribers physically apart from the content they access.⁴⁹ Justice Scalia used pizzerias and pizza delivery for his primary analogy and asserted that one could not ignore the fact that pizza baking and pizza delivery constitute two separate elements of the pizza business.⁵⁰ He concluded, "[i]t is therefore inevitable that customers will

^{46.} Brand X, 545 U.S. at 992.

^{47.} Id. at 992 (citations omitted).

^{48.} *Id.* at 1005 (Scalia, J., dissenting) ("The important fact, however, is that the Commission has chosen to achieve this [result] through an implausible reading of the statue, and has thus exceeded the authority given it by Congress.").

^{49.} *Id.* at 1008 ("Despite the Court's mighty labors to prove otherwise the telecommunications component of cable-modem service retains such ample independent identity that it must be regarded as being on offer – especially when seen from the perspective of the consumer or the end user, which the Court purports to find determinative") (citation omitted).

^{50.} Id. at 1007.

If, for example, I call up a pizzeria and ask whether they offer delivery, both common sense and common "usage," would prevent them from answering: "No, we do not offer delivery – but if you order a pizza from us, we'll bake it for you and then bring it to your house." The logical response to this would be something on

regard the competing cable-modem service as giving them *both* computing functionality *and* the physical pipe by which that functionality comes to their computer—both the pizza and the delivery service."⁵¹

The use of simplistic, but diverging, analogies within Supreme Court opinions demonstrates how experts in the law struggle to understand the scope of both regulatory and deregulatory authority the FCC has when applying statutory definitions to telecommunications and information processing technologies. The majority decision accepts the FCC's interpretation and application of statutory definitions while Judge Scalia chides the FCC for acting without statutory authority. In what might become a timely prediction of future FCC conduct, Justice Scalia also rejected the FCC's heavy reliance on Title I ancillary jurisdiction to achieve whatever re-regulation it might deem necessary:

This is a wonderful illustration of how an experienced agency can (with some assistance from credulous courts) turn statutory constraints into bureaucratic discretions. The main source of the Commission's regulatory authority over common carriers is Title II, but the Commission has rendered that inapplicable in this instance by concluding that the definition of "telecommunications service" is ambiguous and does not (in its current view) apply to cable-modem service. It contemplates, however, altering that (unnecessary) outcome, not by changing the law (i.e., its construction of the Title II definitions), but by reserving the right to change the facts. Under its undefined and sparingly used "ancillary" powers, the Commission might conclude that it can order cable companies to "unbundle" the telecommunications component of cable-modem service. And presto, Title II will then apply to them, because they will finally be "offering" telecommunications service!⁵²

the order of, "so, you do offer delivery." But our pizza-man may continue to deny the obvious and explain, paraphrasing the FCC and the Court: "No, even though we bring the pizza to your house, we are not actually 'offering' you delivery, because the delivery that we provide to our end users is 'part and parcel' of our pizzeria-pizza-at-home service and is 'integral to its other capabilities." Any reasonable customer would conclude at that point that his interlocutor was either crazy or following some too-clever-by-half legal advice.

Id. (citations omitted).

- 51. Brand X, 545 U.S. at 1009 (Scalia, J., dissenting).
- 52. Id. at 1014. The dissent continued:

Under the Commission's assumption that cable-modem-service providers are not providing "telecommunications services," there is reason to doubt whether it can use its Title I powers to impose common-carrier-like requirements, since 47 U.S.C. § 153(44) specifically provides that a "telecommunications carrier shall be treated as a common carrier under this chapter *only to the extent* that it is engaged in providing telecommunications services," and "this chapter" includes Titles I and II.

B. DSL Migrates from Telecommunications Service to Information Service

Following up on the Supreme Court's endorsement of its decision to deem cable modem Internet access an information service, the FCC reclassified DSL from a telecommunications service to an information service.⁵³ This reclassification did not trigger a court appeal or much scrutiny because the Supreme Court already had expansively deferred to and endorsed the Commission's expertise in differentiating telecommunications from information services and because the Commission could make a strong public interest argument favoring regulatory parity between cable modem and DSL service. Notwithstanding the Supreme Court's unwillingness to second guess the FCC's interpretation of it legislative mandate, including the classification of services using the definitions contained in the Communications Act, the Commission had a more challenging task in reclassifying a telecommunications service, instead of initially classifying a carrier's offering as an information service.

Bear in mind that cable television ventures can offer cable modem service by retrofitting their video programming distribution network that the FCC never deemed a telecommunications service. For DSL, the FCC had to rationalize a reclassification of a service that telephone companies can offer only by retrofitting their existing copper wire network initially used exclusively to deliver regulated telecommunications services. The FCC's reclassification of DSL exempted telephone companies and their DSL subscribers from having to contribute to universal service funding, even though the Commission soon concluded that the sustainability of its universal service funding program required the expansion of compulsory contributors to include VoIP services accessed via DSL.

The FCC justified its reclassification of DSL on several grounds: 1) deregulation will promote wider access to broadband access;⁵⁴ 2) the public interest benefits accruing from subjecting both cable modem and DSL service to minimal regulation;⁵⁵ 3) deregulation will create incentives for investment in next generation networks;⁵⁶ 4) emerging

Id. at 1014 n.7.

^{53.} Appropriate Framework, supra note 14.

^{54.} *Id.* at 14,855 ("[T]his Order encourages the ubiquitous availability of broadband to all Americans by, among other things, removing outdated regulations. Those regulations were created over the past three decades under technological and market conditions that differed greatly from those of today.").

^{55.} *Id.* ("[T]he framework we adopt in this Order furthers the goal of developing a consistent regulatory framework across platforms by regulating like services in a similar functional manner, after a transitional period.").

^{56.} Id. ("[T]he actions we take in this Order allow facilities-based wireline broadband

competition by several facilities-based broadband providers;⁵⁷ and 5) the perception that a legislative mandate to promote the availability of "advanced telecommunications capabilities"⁵⁸ includes deregulatory initiatives to promote access to information services.⁵⁹

The FCC never directly addressed how the telecommunications transmission component of DSL service had changed from one identifiable as a stand-alone, common carrier service to an integrated and unseverable component. Instead the Commission simply reiterated and applied its rationale for finding the integrated and unseverable aspects of telecommunications in cable modem service. The FCC deems DSL services functionally equivalent to cable modem service because "wireline broadband Internet access" has the same integration of basic telecommunications and enhanced information processing functions 61

Internet access service providers to respond to changing marketplace demands effectively and efficiently, spurring them to invest in and deploy innovative broadband capabilities that can benefit all Americans ").

57. *Id.* at 14,856 ("[T]he record before us demonstrates that the broadband Internet access market today is characterized by several emerging platforms and providers, both intermodal and intramodal, in most areas of the country."). But curiously the Commission also forecasts competition resulting from its decision. *Id.*

We are confident that the regulatory regime we adopt in this Order will promote the availability of competitive broadband Internet access services to consumers, via multiple platforms, while ensuring adequate incentives are in place to encourage the deployment and innovation of broadband platforms consistent with our obligations and mandates under the Act.

Appropriate Framework, supra note 14, at 14,856.

- 58. The Telecommunications Act of 1996 ("96 Act") defines "advanced telecommunications capability . . . without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." Pub. L. No. 104-104 § 706(c), 110 Stat. 56, 153 (codified at 47 U.S.C. § 157 note).
- 59. Appropriate Framework, *supra* note 14, at 14,865 ("Finally, the directives of section 706 of the 1996 Act require that we ensure that our broadband policies promote infrastructure investment, consistent with our other obligations under the Act.").
- 60. *Id.* at 14,860 ("Wireline broadband Internet access service, for purposes of this proceeding, is a service that uses existing or future wireline facilities of the telephone network to provide subscribers with Internet access capabilities.").

61. Id. at 14,863-64.

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

and because the Commission apparently cannot decouple or sever the telecommunications component: "Because wireline broadband Internet access service inextricably combines the offering of powerful computer capabilities with telecommunications, we conclude that it falls within the class of services identified in the Act as 'information services." ⁶²

Having effectuated the reclassification of DSL as an information service, the FCC removed all previous regulatory safeguards designed to promote a level competitive playing field among competing providers of enhanced services that apply information processing to basic transmission links. In its *Second Computer Inquiry*, the FCC established several interconnection and fair dealing requirements on telephone companies when offering basic telecommunications services, as well as a requirement that these companies separate basic services from enhanced services and offer the former on a common carrier basis.

The FCC subsequently concluded that technological innovations and the possibility of gains in operational efficiencies support the elimination of a regulatory barrier against integrating basic and enhanced services. The elimination of these regulations frees telephone companies to offer intelligent networks and not "dumb pipes" that other ventures would enhance with software and other applications. In an effort to ensure that telephone companies have every incentive to build basic and enhanced networks, the FCC promoted full exploitation of technological and market convergence at the risk of having relinquished the most effective and lawful regulatory tools to remedy abuses and to protect the public interest when self-regulation does not suffice in the information service marketplace.

The Commission has no doubts that a competitively level marketplace will evolve, thereby ensuring widespread availability of retail broadband access for consumers and even for access to ventures seeking to compete with broadband service providers using their facilities and services on a resale basis.⁶³ The Commission has such confidence about

those of incumbent LECs to make such transmission available to ISPs, and are continuing to do so pursuant to private carriage arrangements.

together constitute an information service as defined by the Act.

Id.

^{62.} *Id.* at 14,864. 63. *Id.* at 14,887.

Based on the record before us, we expect that facilities-based wireline carriers will have business reasons to continue making broadband Internet access transmission services available to ISPs without regard to the *Computer Inquiry* requirements. The record makes clear that such carriers have a business interest in maximizing the traffic on their networks, as this enables them to spread fixed costs over a greater number of revenue-generating customers. For their part, cable operators, which have never been required to make Internet access transmission available to third parties on a wholesale basis, have business incentives similar to

the evolution of competition that it ignores current evidence of a duopoly in broadband Internet access (greater than 200 kilobits per second in both directions), comprised of cable and telephone companies serving approximately 96% of the market.⁶⁴ Curiously, the Commission does not consider it necessary even to assess whether any venture has dominant market power in the broadband or wireline broadband marketplace.⁶⁵ The Commission concludes that such a market assessment was appropriate only for the previous market environment dominated by telephone companies with separate telecommunications and information service markets.⁶⁶ For specific problems not remedied by a competitive marketplace, the FCC reminds readers that the Commission can and will use its ever expanding and presumably effective Title I authority⁶⁷ in such

Appropriate Framework, supra note 14, at 14,887.

64. WCB REPORT, *supra* note 9, at 2 ("Of the 64.6 million total high-speed lines, 44.1% were cable modem, 34.9% were ADSL, 1.5% were symmetric DSL (SDSL) or traditional wireline, 1.1% were fiber to the end user premises, and 18.4% used other technologies."); *id.* at 3 ("Of the 50.4 million lines which were faster than 200 kbps in *both* directions, 55.9% were cable modem, 36.3% were ADSL, 1.9% were SDSL or traditional wireline, 1.4% were fiber to the end user premises, and 4.5% used other technologies."); *id.* (of the 45.9 million lines that were speedier than 200 kbps in both directions and serving residential subscribers, "cable modem represented 59.9% while 35.8% were ADSL, 0.2% were SDSL or traditional wireline, 1.0% were fiber to the end user premises, and 3.2% used other technologies."). The FCC's statistics provide the basis for the Commission, stakeholder and outside researchers to conclude that a vibrant and robustly competitive broadband market exists. *See, e.g.*, J. Gregory Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2 J. COMPETITION. L. & ECON. 349, 387 (2006) (arguing that dial up telephone service, despite its throughput limitations, constitutes a competitive alternative to broadband services to conclude that a robustly competitive Internet access marketplace exists for VoIP providers).

65. Appropriate Framework, supra note 14, at 14,897-98.

Based on the record before us, it is not necessary to make a finding of market non-dominance as to the incumbent LECs in the provision of broadband Internet access transmission, as some parties have asked us to do, before we may eliminate the Computer Inquiry obligations. We decline to do so. Nor do we think it necessary or appropriate to make findings about dominance or non-dominance with respect to the retail market for broadband Internet access.

Id.

66. Id. at 14,898.

[The previous] market environment differs markedly from the dynamic and evolving broadband Internet access marketplace before us today where the current market leaders, cable operators and wireline carriers, face competition not only from each other but also from other emerging broadband Internet access service providers. This rapidly changing market does not lend itself to the conclusions about market dominance the Commission typically makes to determine the degree of regulation to be applied to well-established, relatively stable telecommunications service markets. On the contrary, any finding about dominance or non-dominance in this emerging broadband Internet access service market would be premature.

Id.

67. The FCC proposes to provide still essential consumer protection safeguards under a common framework for all broadband services. *Id.* at 14,929-30 ("This framework necessarily will be built on our ancillary jurisdiction under Title I; as we explain in the Order, this

areas as consumer protection, network reliability, or national security obligations.⁶⁸

II. VOIP SERVICE REGULATION

On technological and philosophical grounds, one would think the FCC would not burden VoIP service with much, if any regulation. The Commission has expressed a disinclination to regulate new and developing technologies and services, particularly if it anticipates robust competition as likely to occur. Additionally, the Commission has undertaken a multi-year campaign to reduce regulations and the extent regulation imposes financial costs and competitive disadvantages.

jurisdiction is ample to accomplish the consumer protection goals we identify below, and we will not hesitate to exercise it.").

68. Id. at 14,913-14.

The Commission may exercise its ancillary jurisdiction when Title I of the Act gives the Commission subject matter jurisdiction over the service to be regulated and the assertion of jurisdiction is "reasonably ancillary to the effective performance of its various responsibilities." We recognize that both of the predicates for ancillary jurisdiction are likely satisfied for any consumer protection, network reliability, or national security obligation that we may subsequently decide to impose on wireline broadband Internet access service providers.

Appropriate Framework, supra note 14, at 14,913-14 (quoting Sw. Cable Co., 392 U.S. at 178).

69. For example, the FCC opted to treat wireless broadband access as an information service like cable modem, DSL and powerline provided Internet access. Wireless Treatment, *supra* note 8.

[C]lassifying wireless broadband Internet access service as an information service furthers the goals of sections 7 and 230(b)(2) of the Communications Act, and section 706 of the Telecommunications Act of 1996. As noted above, wireless broadband Internet access technologies continue to evolve at a rapid pace. Through this classification, we provide the regulatory certainty needed to help spur growth and deployment of these services. Particularly, the regulatory certainty we provide through this classification will encourage broadband deployment in rural and underserved areas, where wireless broadband may be the most efficient broadband option. Additionally, we believe that wireless broadband Internet access service can provide an important homeland security function by creating redundancy in our nation's communications infrastructure.

Id.

70. Appropriate Framework, supra note 14, at 14,877.

[R]egulation can have a significant impact on the ability of wireline platform providers to develop and deploy innovative broadband capabilities that respond to market demands. The record shows that the additional costs of an access mandate diminish a carrier's incentive and ability to invest in and deploy broadband infrastructure investment. We find this negative impact on deployment and innovation particularly troubling in view of Congress' clear and express policy goal of ensuring broadband deployment, and its directive that we remove barriers to that deployment, if possible, consistent with our other obligations under the Act. It is precisely this negative impact on broadband infrastructure that led the Commission to eliminate other broadband-related regulation over the past two years. These

Indeed the motivation to expand the availability of the information services safe harbor stems from a view that the FCC should avoid regulation whenever possible in light of the marketplace distortions such regulation can generate including investment disincentives and arbitrage strategies that create unequal regulatory burdens on competitors.⁷¹

In light of aggressive efforts by the FCC to exempt the Internet from regulation and to characterize Internet access as an information service, it seems ironic that the Commission cannot reach closure on deciding whether VoIP also qualifies for inclusion in the information service deregulatory safe harbor. VoIP services require the use of software to process bitstreams originated and terminated over DSL and cable modem links with the long haul occurring within the Internet's "cloud" of telecommunications networks. It should strain credulity, even for deferential courts, for the FCC to conclude that while the underlying bitstream provided by cable modem and DSL providers constitutes an information service that integrates telecommunications, VoIP services do not similarly integrate telecommunications into a package predominated by information service components.

A. VoIP Service Providers Must Contribute to Universal Service Funding Regardless of Their Regulatory Status

When the FCC confronted a need to shore up a system for subsidizing universal access to basic telephone services, the Commission opted to include interconnected VoIP⁷³ providers as compulsory contributors.⁷⁴ The FCC avoided having to classify VoIP as a telecommunications service for purposes of expanding the scope of

factors, when weighed against the benefits of continuing these regulations, render a different policy result than the judgment reached at the time the *Computer Inquiry* rules were adopted.

Id. (citations omitted).

71. See Rob Frieden, The FCC's Name Game: How Shifting Regulatory Classifications Affect Competition, 19 BERKELEY TECH. L.J. 1275 (2004); Rob Frieden, Regulatory Arbitrage Strategies and Tactics in Telecommunications, 5 N.C. J. L. & TECH. 227 (2004).

73. The FCC defines interconnected VoIP services as having the following traits:

^{72.} The Internet "cloud" refers to the vast array of interconnected networks that make up the Internet and provide users with seamless connectivity to these networks and the content available via these networks. *See* ED KROL, THE WHOLE INTERNET: USER'S GUIDE AND CATALOG 261-62 (1992).

⁽¹⁾ the service enables real-time, two-way voice communications; (2) the service requires a broadband connection from the user's location; (3) the service requires IP-compatible CPE [i.e., customer premises equipment]; and (4) the service offering permits users generally to receive calls that originate on the PSTN and to terminate calls to the PSTN [i.e., the conventional dial up public switched telephone network].

E911 First Report and Order, *supra* note 11, at 10,257-58. 74. Contribution Methodology, *supra* note 21, at 7520.

universal service funders because statutory language provided the Commission an option of requiring contributions from "[a]ny other provider of interstate telecommunications . . . if the public interest so requires." Accordingly the issue of a multi-billion dollar universal service financial responsibility for VoIP service depended on another semantic dichotomy: whether the FCC could convince a reviewing court that even if VoIP ventures do not *offer* telecommunications services they *provide* interstate telecommunications. The FCC concluded that VoIP services include the provision of telecommunications as a component integrated within the finished service and a reviewing court accepted the Commission's interpretation as reasonable.⁷⁶

Before delving into the metaphysical difference between offering and providing telecommunications, background on the universal service funding process might offer perspective on the FCC's practical and political motivations that surely influenced its statutory construction.

B. Outline of the Universal Service Funding Process

Since the onset of telephony, companies and governments have endorsed strategies for making service affordable and available even for the poor and people located in remote and costly to serve areas. Supporting universal service constitutes sound public policy because efficient, effective, and widely available telecommunications services can stimulate social and economic development by providing the vehicle for greater commerce, political discourse, education, and delivery of government services such as job training. However, the means by which the United States has pursued this mission combines lofty concepts of equity and equal opportunities with other largely political objectives. For example, in the early 1900s, senior management of AT&T recognized that promoting universal service, using an internally generated financial subsidy methodology, achieved the twin goals of

^{75. 47} U.S.C. § 254(d).

^{76.} See Vonage, 489 F.3d at 1241-42.

^{77.} Scott Wallsten, Robert W. Hahn, Robert W. Crandall, & Robert E. Litan, Bandwidth for the People, Pol. Rev. (Am. Enterprise Inst. for Pub. Pol'y Res., Wash., D.C.), Nov. 22, 2004, available at http://www.aei.org/publications/pubid.21593,filter.all/pub_detail.asp.

Broadband Internet access could contribute substantially to economic growth. Consumers benefit from new ways to acquire information, enjoy audio and video entertainment, monitor remote locations, receive medical care, and buy items ranging from books to cars. A study in 2001 estimated that universal broadband adoption could yield annual consumer benefits of \$300 billion.

Id. (citing ROBERT W. CRANDALL & CHARLES L. JACKSON, THE \$500 BILLION OPPORTUNITY: THE POTENTIAL ECONOMIC BENEFIT OF WIDESPREAD DIFFUSION OF BROADBAND INTERNET ACCESS (2001)).

promoting aspects of universal service while also securing support for maintaining a "benevolent" Bell System monopoly from politicians and rural, unaffiliated telephone companies.⁷⁸

Until the passage of the Telecommunications Act of 1996,⁷⁹ telecommunications service consumers bore a universal service subsidy obligation without knowing the cost because carriers could hide the expense primarily in higher per minute long distance telephone charges and average higher costs over a large volume of calls.⁸⁰ Use of an implicit subsidy mechanism obscured the cost of the universal service mission and made it difficult to discern whether subsidy burdens blunted demand and caused other market distortions. Consumers could not readily determine the scope of their subsidy contribution because carriers did not subdivide their single per minute rates into separate elements, including a surcharge for universal service.⁸¹

The '96 Act requires explicit subsidies, 82 codifies the universal service mission, 83 and establishes specific requirements for the FCC to

^{78.} When AT&T President Theodore Vail articulated universal service, he sought "the unification of telephone service under regulated local exchange monopolies." MILTON L. MUELLER, JR., UNIVERSAL SERVICE: COMPETITION, INTERCONNECTION, AND MONOPOLY IN THE MAKING OF THE AMERICAN TELEPHONE SYSTEM 92 (1997).

^{79.} Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 15, 18 and 47 U.S.C.).

^{80.} Stuart Buck, Telric vs. Universal Service: A Takings Violation?, 56 FED. COMM. L.J. 1, 2 (2003).

By longstanding tradition, local phone companies are required to sell their services to customers at roughly comparable prices. This so-called "universal service" obligation is intended to ensure that people who live in rural and residential areas (which are expensive to serve) can buy phone service on terms similar to those offered to urban or business customers (which are cheaper to serve). Under universal service obligations, then, retail pricing is typically *averaged* across a variety of customers or geographic areas.

Id. Implicit subsidies in telecommunications "result, in large part from rate averaging between rural and suburban/urban areas and the recovery of certain non-traffic sensitive costs through traffic sensitive per minute rates, which over-recovers costs from higher volume users, often business customers." Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Report & Order & Order on Remand & Further Notice of Proposed Rulemaking, 18 FCC Rcd. 16,978, 17,078 n.509 (2003), vacated in part, review dismissed in part, United States Telecom Ass'n v. F.C.C., 359 F.3d 554 (D.C. Cir. 2004); see generally Access Charge Reform, Report & Order, 15 FCC Rcd. 12,962, 12,971-72 (2002) (describing how high-volume users bear a greater share of the non-traffic sensitive costs than low-volume users), rev'd in part, remanded in part sub nom. Tex. Office of Pub. Util. Counsel v. F.C.C., 265 F.3d 313 (5th Cir. 2001). See also Jonathan Weinberg, The Internet and "Telecommunications Services," Universal Service Mechanisms, Access Charges, and Other Flotsam of the Regulatory System, 16 YALE J. ON REG. 211, 219-20 (1999).

^{81.} Prior to enactment of the '96 Act telephone companies did not impose a billing line item that identified the amount due from consumers to support USF.

^{82. &}quot;There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service." 47 U.S.C. § 254(b)(5).

^{83. 47} U.S.C. § 254(b).

implement, including near parity in cost and access to service by rural consumers.⁸⁴ Most carriers have responded to the explicit subsidy requirement by creating a separate billing line item to identify and pass through the specific cost of universal service support.⁸⁵ For the second quarter of 2007, the "contribution factor" surcharge that was passed directly to consumers amounted to 11.3% of a telecommunications carrier's interstate and international end-user service revenues,⁸⁶ a rate that adds several dollars per month to the average consumer's bill.

Consumers of telecommunications services paid approximately \$7.3

The Joint Board and the Commission shall base policies for the preservation and advancement of universal service on the following principles:

(1) Quality and rates

Quality services should be available at just, reasonable, and affordable rates.

(2) Access to advanced services

Access to advanced telecommunications and information services should be provided in all regions of the Nation.

(3) Access in rural and high cost areas

Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced 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.

(4) Equitable and nondiscriminatory contributions

All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.

Id.

84. Multi-Ass'n Group (MAG) Plan for Regulation of Interstate Servs. of Non-Price Cap Incumbent Local Exchange Carriers & Interexchange Carriers, *Second Report & Order and Further Notice of Proposed Rulemaking*, 16 FCC Rcd. 19,613, 19,689-90 (2001).

In section 254(g) of the Act, Congress codified the Commission's pre-existing geographic rate averaging and rate integration policies. The Commission implemented section 254(g) by adopting two requirements. First, providers of interexchange telecommunications services are required to charge rates in rural and high-cost areas that are no higher than the rates they charge in urban areas. This is known as the geographic rate averaging rule. Second, providers of interexchange telecommunications services are required to charge rates in each state that are no higher than in any other state. This is known as the rate integration rule.

Id.

85. FCC, Universal Service Support Mechanisms, http://www.fcc.gov/cgb/consumerfacts/universalservice.html (last visited Apr. 10, 2008) ("Some consumers may notice a 'Universal Service' line item on their telephone bills. This line item appears when a company chooses to recover its contributions directly from its customers by billing them this charge. The FCC does not require companies to pass on these costs to their customers.").

86. Proposed Third Quarter 2007 Universal Serv. Contribution Factor, *Public Notice*, 22 FCC Rcd. 11,049 (2007). The 11.3% rate represents a reduction of .04% from the prior quarter. *See* Proposed Second Quarter 2007 Universal Serv. Contribution Factor, *Public Notice*, 22 FCC Rcd. 5074 (2007).

billion in 2006⁸⁷ to subsidize service by local exchange carriers operating in high cost areas, and the rates paid by residents in rural areas and Indian reservations, the poor, schools, libraries, rural hospitals, and clinics primarily for basic "lifeline" telephone service. Be Despite having collected and dispersed substantial sums of money available for universal service funding ("USF"), the carriers have not fully achieved longstanding service goals because they received money as an offset against current costs and monthly consumer charges. Laudable expansion of the mission to help bridge the Digital Divide⁸⁹ by supporting access to broadband

87. Contribution Methodology, supra note 21; id. at 7527 ("There is widespread agreement that the Fund is currently under significant strain. The size of the Fund has grown significantly, with disbursements rising from approximately \$4.4 billion in 2000 to approximately \$6.5 billion in 2005, and is projected to grow even further in the coming years."); CONG. BUDGET OFFICE, FINANCING UNIVERSAL TELEPHONE SERVICE viii available at http://www.cbo.gov/ftpdocs/61xx/doc6191/03-28-Telephone.pdf ("Outlays from the USF [Universal Service Fund] grew from \$3.3 billion in fiscal year 1999 to \$5.7 billion in fiscal year 2004."). The Universal Service Administrative Company, which disburses universal service funds, estimates that it will have paid out \$7.3 billion in 2006. Serv. Admin. Co., Universal Service Fund http://www.usac.org/about/universal-service/fund-facts/fund-facts.aspx (last visited Apr. 10, 2008) [hereinafter Universal Service Fund Facts].

88. Universal service funding targeted to expand telephone subscription offers financial subsidies to qualifying individuals that defray the non-recurring cost to initiate service and the recurring costs for dial up telephone service. The services that are supported by the federal universal service support mechanisms are:

(1) voice grade access to the public switched network; (2) local usage; (3) Dual Tone Multifrequency (DTMF) signaling or its functional equivalent [for "touch tone" dialing]; (4) single-party service or its functional equivalent; (5) access to emergency services, including 911 and enhanced 911; (6) access to operator services; (7) access to interexchange services; (8) access to directory assistance; and (9) toll limitation for qualifying low-income customers.

Fed.-State Joint Bd. on Universal Serv., *Recommended Decision*, 19 FCC Rcd. 4257, 4264-65 (2004). The FCC has declined to increase the scope of services qualifying for USF subsidies. However, the Commission does not limit subsidies to only one telephone line per household, despite the recommendation by a Federal-State Joint Board that it do so. Fed.-State Joint Bd. On Universal Serv., *Report & Order*, 20 FCC Rcd. 6371, 6373 (2005).

[W]e do not adopt the recommendation of the Joint Board to limit high-cost support to a single connection that provides access to the public telephone network. Section 634 of the 2005 Consolidated Appropriations Act prohibits the Commission from utilizing appropriated funds to "modify, amend, or change" its rules or regulations to implement this recommendation.

Id. (citing Consolidated Appropriations Act, 2005 § 634, Pub. L. No. 108-447, 118 Stat. 2809, 2922 (codified as amended at 21 U.S.C. § 958)).

89. The Digital Divide separates "those [people] with access to new technologies and those without" NAT'L TELECOMMS. AND INFO. ADMIN., FALLING THROUGH THE NET: DEFINING THE DIGITAL DIVIDE xiii (1999), available at http://www.ntia.doc.gov/ntiahome/fttn99/fttn.pdf; see also Jaime Klima, The E-Government Act: Promoting E-Quality or Exaggerating the Digital Divide, 2003 DUKE L. & TECH. REV. 9 (2003); James E. Prieger, The Supply Side of the Digital Divide: Is There Equal Availability in the Broadband Internet Access Market., 41 ECON. INQUIRY 346 (2003); Peter K. Yu, Bridging the Digital Divide: Equality in the Information Age, 20 CARDOZO ARTS & ENT.

networks by individuals would further stress the funding mechanism and surely would force an increase in the percentage surcharge on carrier long distance and international voice telephone revenues used to fund universal service.⁹⁰

Even if the universal service funding mission did not expand to include broadband services, the current funding mechanism has become unsustainable as revenues providing the subsidy have diminished as a result of consumer migration from conventional, dial up wireline services to others that contribute on the basis of a lower percentage surcharge, e.g., cellular radiotelephone service, or none at all, e.g., private VoIP services used by companies to provide internal long distance telephone calling.

1. Four Types of Universal Service Promotions

The universal service mission in the United States traditionally has meant that carriers have a duty to ensure that the largest possible number of residents, including the poor and residents in remote locations, have access to basic telephone service.⁹¹ Universal service funding supports four programs:

1) **The Low Income Program** reimburses local wireline and some wireless telephone companies for providing service discounts to qualifying low-income consumers.⁹² The Link-Up America program

L.J. 1 (2002); ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, UNDERSTANDING THE DIGITAL DIVIDE (2001), available at http://www.oecd.org/dataoecd/38/57/1888451.pdf; The Digital Divide Network, http://www.digitaldivide.net (last visited Apr. 10, 2008).

90. FCC, Universal Service Fund Contribution Factor & Quarterly Filings, http://www.fcc.gov/omd/contribution-factor.html (last visited Apr. 10, 2008) ("Telecommunications companies must pay a percentage of their interstate end-user revenues to the Universal Service Fund. This percentage is called the contribution factor. The contribution factor changes four times a year (quarterly) and is increased or decreased depending on the needs of the Universal Service programs.").

91. Patricia M. Worthy, *Racial Minorities and the Quest to Narrow the Digital Divide: Redefining the Concept of "Universal Service"*, 26 HASTINGS COMM. & ENT. L.J. 1, 4 (2003).

The notion that everyone should be provided the opportunity to receive basic telephone service at an affordable rate, regardless of geographic location or economic status, has been widely adopted as national policy. The goal of quality, widely available and reasonably priced telephone service has been achieved through a myriad of regulatory policies such as rate averaging, cost support funds and loan programs.

Id

92. FCC, Lifeline and Link-Up: Affordable Telephone Service for Income-Eligible Consumers, http://www.fcc.gov/cgb/consumerfacts/lllu.html (last visited Apr. 10, 2008). For states that rely solely on the federal Lifeline and Link-Up program eligibility criteria, subscribers must either have an income that is at or below 135% of the federal Poverty Guidelines, or participate in one of the following assistance

offsets one-half of the initial hook-up fee, up to \$30.00. The program also encourages carriers to offer a deferred payment schedule for the initial installation fee. The Lifeline Assistance Program provides a discount of up to \$10.00 per month for basic telephone service. Residents of American Indian and Alaska Native tribal communities may qualify for up to an additional \$25.00 in support beyond current Lifeline support levels and expanded Link-Up support of up to \$70.00 in additional support beyond current levels. In 2006, this program provided approximately \$820 million in support. 94

2) The High-Cost Program provides financial support to local wireline and some wireless telephone companies that offer telecommunications services in areas where the cost of providing service exceeds a national or state average by at least 115% to 135% depending on the type of cost elements supported. Carriers operating in high cost areas are divided into rural and non-rural locales and have several different cost components assessed for purposes of determining whether subsidization should occur. The FCC primarily examines the costs local exchange carriers incur in providing subscribers with access to telecommunications services via a "local loop" connection. This first mile connection for originating calls and the last mile link for receiving calls require substantial sunk investment and also reflect economies of scale. Subsidies typically flow to telephone companies serving fewer than 50,000 telephone lines. Small carriers usually have higher per subscriber costs that cannot be recouped fully from the access charge fees imposed on long distance carriers for originating and terminating long distance traffic and from telephone subscribers who now pay a monthly \$6.50 subscriber line charge. In 2006, this program provided approximately \$4.1 billion in support.⁹⁵

3) The Schools and Libraries "e-rate" Program⁹⁶ provides

programs: Medicaid, Food Stamps, Supplemental Security Income (SSI), Federal Public Housing Assistance (Section 8), Low-Income Home Energy Assistance Program (LIHEAP), Temporary Assistance to Needy Families (TANF), The National School Lunch Program's Free Lunch Program, Bureau of Indian Affairs General Assistance, Tribally-Administered Temporary Assistance for Needy Families (TTANF), Head Start (if income eligibility criteria are met), and Tribal National School Lunch Program.

Id.

^{93.} See FCC, Lifeline and Link-Up Consumers Page, http://www.lifeline.gov/lifeline_Consumers.html (last visited Apr. 10, 2008).

^{94.} UNIVERSAL SERV. ADMIN. CO., 2006 ANNUAL REPORT: REACHING OUT 47 (2007) [hereinafter USAC Disbursements], available at http://www.universalservice.org/_res/documents/about/pdf/usac-annual-report-2006.pdf; see also Universal Service Fund Facts, supra note 87.

^{95.} USAC Disbursements, supra note 94, at 41.

^{96.} Schools and Libraries Universal Serv. Support Mechanism, Fifth Report & Order &

discounts of twenty to ninety percent, depending on the household income level of families in the community and whether the school or library is located in an urban or rural area. The discounts offset the cost of voice, data, video and wireless services, Internet access, and the cost of installing and maintaining internal connections including switches, hubs, routers, and wiring. A maximum of \$2.25 billion is available annually and approximately \$1.67 billion was awarded in 2006.⁹⁷

4) The Rural Health Care Program ensures that health care providers located in rural areas pay no more than their urban counterparts for telecommunications services including those "telemedicine" services needed to access advanced diagnostic and other medical services available at urban medical centers. In 2006, this program awarded \$40.6 million. 98

C. The FCC's Decision to Include VoIP Service Providers as Compulsory USF Contributors Upheld

The United States Court of Appeals for the District of Columbia, in *Vonage Holdings Corp. v. F.C.C.*, 99 had little difficulty affirming the Commission's decision to require VoIP service providers to make universal service funding contributions. Applying the two-part *Chevron* test for judicial deference to agency action, the court concluded that the FCC made a permissible and reasonable construction of Section 254 of the Communications Act. 100 To determine the permissibility of the FCC's statutory construction, the court focused on the semantic difference between providing telecommunications and offering

Order, 19 FCC Rcd. 15,808, 15,810 (2004).

Under the Commission's rules, eligible schools and libraries may receive discounts ranging from 20 percent to 90 percent of the pre-discount price of eligible services, based on indicators of need. Schools and libraries in areas with higher percentages of students eligible for free or reduced-price lunch through the National School Lunch Program (or a federally approved alternative mechanism) qualify for higher discounts for eligible services than applicants with low levels of eligibility for such programs. Schools and libraries located in rural areas also generally receive greater discounts.

The Commission's priority rules provide that requests for telecommunications services, voice mail and Internet access for all discount categories shall receive first priority for the available funding (Priority One services). The remaining funds are allocated to requests for support for internal connections (Priority Two services), beginning with the most economically disadvantaged schools and libraries, as determined by the schools and libraries discount matrix.

Id

97. USAC Disbursements, supra note 94, at 47.

98. Id.

99. See Vonage, 489 F.3d 1232.

100. Id. at 1239-41.

telecommunication. The court endorsed the FCC's view that VoIP service includes the provision of telecommunications which covers more functions than when a venture offers telecommunications:

[W]e have little trouble concluding that the word "provide" is sufficiently broad to encompass the Commission's interpretation. Returning to *Brand X*'s car dealership hypothetical, we see nothing strange about the statement that a dealership provides both cars *and* engines. Indeed, one could reasonably interpret the statement that a dealership "does not provide engines" to mean that it sells cars without engines, not that it won't sell disconnected engines.¹⁰¹

The court also did not second guess the FCC's decision to interpret the word "provide" from the perception of what VoIP ventures supply and the word "offer" from consumers' perspective of what they receive. 102

court also accepted the rationale telecommunications as a subordinate and integrated component of VoIP service using the same rationale as articulated in the Brand X decision. However, the court did not consider the FCC obligated to classify VoIP as falling solely into the information service, or the telecommunications service categories, even though the FCC considered it necessary to do so. While acknowledging that the categories are mutually exclusive, the court rejected as unproven the argument that a provider of information services cannot also be a provider of telecommunications for purposes of lawfully authorizing the FCC to require universal service contributions under permissive authority contained in Section 254(d) of the Communications Act. The court stated just the opposite: "[T]he Act clearly contemplates that 'telecommunications' may be a component of an 'information service' "103 The court quickly rejected the argument that the FCC should have isolated the transmission element of VoIP for purposes of determining whether common carrier, Title II regulation applies. 104 As in the Brand X case, 105 the court considered Section 254 of

^{101.} Id. at 1240.

^{102. &}quot;We also see nothing that would prevent the Commission from interpreting the word 'offer' from the demand side (i.e., the consumer's perception of what she receives) and the word 'provide' from the supply side (the seller's perception of what she supplies)." *Id.*

^{103.} Id. at 1241.

^{104.} *Id.*

But, although "information service" and "telecommunications service" are mutually exclusive categories, CCIA points to no authority supporting its argument that a provider of "information services" cannot also be a "provider of telecommunications" for the purposes of section 254(d). Indeed, the Act clearly contemplates that "telecommunications" may be a component of an "information service," defining the latter as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."

the Communications Act ambiguous in terms of the meaning of the words "offering" and "providing." The court refused to second guess the FCC's narrow interpretation having considered it a reasonable one using the *Chevron* standard.¹⁰⁶

Lastly the court rejected, on procedural grounds, having to assess whether VoIP solely constitutes an information service with no telecommunications component because the FCC never definitively addressed this issue. By not having determined whether VoIP constitutes an information service exclusively or a telecommunications service exclusively, the FCC could emphasize its finding that VoIP service includes a telecommunications component regardless of the definitive service classification the FCC might get around to making for the composite service. ¹⁰⁷

In summary fashion, the court avoided addressing whether the FCC could have required USF contributions by VoIP providers on Title I ancillary jurisdiction grounds because of the direct link to Section 254 of the Communications Act.¹⁰⁸ The court also affirmed the FCC's decision to require VoIP service providers to make contributions based on a rate applicable to wireless carriers.¹⁰⁹ The court reasoned that VoIP service attracts

Id. (quoting 47 U.S.C. § 153(20)). 105. *Brand X*, 545 U.S. at 990.

The question, then, is whether the transmission component of cable modem service is sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering. We think that they are sufficiently integrated, because "a consumer uses the high-speed wire always in connection with the information-processing capabilities provided by Internet access, and because the transmission is a necessary component of Internet access." In the telecommunications context, it is at least reasonable to describe companies as not "offering" to consumers each discrete input that is necessary to providing, and is always used in connection with, a finished service.

Id. (citations omitted).

106. Vonage, 489 F.3d at 1239 ("Where, as here, Congress has delegated interpretive authority to an agency, we review the agency's interpretation of a statute under the familiar two-part test set forth in *Chevron U.S.A. Inc. v. Natural Resources Defense Council...*").

107. *Id.* at 1241 ("Finally, CCIA argues that 'since *interconnected* VoIP always involves change in the 'form or content' of information, it cannot by definition be 'telecommunications.' But we have found no indication that anyone made this argument before the Commission, which may explain why the Commission never addressed it." (citations omitted)).

108. *Id.* at 1241 ("Finding that the Commission has section 254(d) authority to require interconnected VoIP providers to make USF contributions, we have no need to decide whether the Commission could have also done so under its Title I ancillary jurisdiction.").

109. Id. at 1242.

We agree with Vonage that this difference in capabilities renders the VoIP/wireline toll service analogy imperfect. Perfection, however, is not what the law requires. To prevail, Vonage must show that wireless is so much the better analogue for VoIP that the Commission acted arbitrarily and capriciously by failing to select it. This Vonage has not done.

consumers who make a lot of long distance telephone calls that serve as the basis for funding universal service. In a small victory for VoIP providers, the court rejected the FCC's decision allowing wireless carriers to avoid getting approval of traffic studies before implementing them while requiring such preapproval for VoIP operators. The court also rejected the FCC's suspension of a rule that allows carriers to determine their universal service funding requirement based on revenues accruing from serving end users and excluding revenues from wholesaling to other carriers which would have resulted in a double payment by VoIP providers. VoIP

Id.

110. Id. at 1242-43.

The mere fact that both VoIP and wireless are "all-distance" services hardly compels the conclusion that usage patterns for VoIP are closer to those for wireless than to those for wireline toll service. Vonage's "all-distance" argument also does nothing to disturb the Commission's conclusion that VoIP and wireless are likely to attract different types of customers with VoIP customers predisposed, on average, to making more long distance and international calls. Indeed, Vonage concedes that VoIP is unlikely to attract customers who make relatively few long distance calls, but nowhere argues that the same is true for wireless. That omission is significant: if VoIP only attracts customers who make high volumes of long distance and international calls but wireless attracts all kinds of customers-perhaps because its mobility appeals even to people who make few long distance calls-then VoIP will carry a greater proportion of long distance and international calls than wireless.

Vonage, 489 F.3d at 1242-43.

111. *Id.* at 1243-44 ("The Commission, however, has failed to explain how it is any less disruptive to impose such an obligation on interconnected VoIP providers who have gone overnight from making no direct USF contributions to contributing at nearly twice the level of wireless providers.").

112. Id. at 1244.

As the Commission acknowledged, this decision effectively required VoIP providers to make duplicative USF contributions for two quarters: once directly on their own interstate and international revenues and a second time indirectly in the form of higher costs passed along from carriers who sell them telecommunications inputs. The Commission's sole justification for imposing this unique obligation on VoIP providers was this: "if carriers are permitted to invoke the carrier's carrier rule immediately to exclude revenues from interconnected VoIP providers, the result could be a net decrease in the Fund in the short term."

This explanation suffers from a fundamental flaw: the Commission never explained how there could be a net decrease in fund revenues by making VoIP providers contribute while keeping the carrier's carrier rule in force. Indeed, increasing USF revenues was the very reason the Commission gave for requiring interconnected VoIP providers to contribute to the Fund. And, as Vonage points out, the only reason to expect a decrease in fund revenues would be if the indirect payments interconnected VoIP providers made before the Order were somehow larger than the direct payments they would make after the Order.

Id. (citations omitted).

D. Mandatory Wiretapping Cooperation for VoIP and Internet Access Providers

Notwithstanding an explicit prohibition against requiring information service providers to provide wiretapping access to law enforcement agencies, the FCC has found a way to impose such requirements on VoIP and even for Internet access services, 113 which the Commission already has classified as information services. The Commission avoided having to rely on its ancillary Title I authority by referring directly to the Communications Assistance for Law Enforcement Act of 1994 ("CALEA")114 and by differentiating the meaning of telecommunications for this law vis-à-vis the Communications Act.

CALEA defines telecommunications carrier as:

[A] person or entity engaged in the transmission or switching of wire or electronic communications as a common carrier for hire . . . [including cellular radio operators] or a person or entity engaged in providing wire or electronic communication switching or transmission service to the extent that the [Federal Communications] Commission finds that such service is a replacement for a substantial portion of the local telephone exchange service and that it is in the public interest to deem such a person or entity to be a telecommunications carrier for purposes of this subchapter ¹¹⁵

Using its permissive authority, the FCC opted to include VoIP and Internet access providers notwithstanding the fact that they do not operate as common carriers and provide a competitive alternative to, and not a replacement of, local telephone exchange service.

In this proceeding the Commission had to emphasize the functional equivalence of VoIP and Internet access services on one hand and local exchange services on the other hand, despite having emphasized

^{113.} CALEA Implementation, *supra* note 17, at 15,001 ("[W]e find that facilities-based providers of any type of broadband Internet access service, including but not limited to wireline, cable modem, satellite, wireless, fixed wireless, and broadband access via powerline are subject to CALEA." (citations omitted)).

^{114.} Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended in scattered sections of 18 and 47 U.S.C.).

^{115. 47} U.S.C. § 1001(8)(A)-(B). The FCC has interpreted this section as requiring the Commission "to deem certain service providers to be telecommunications carriers for CALEA purposes" even when those providers are not telecommunications carriers under the Communications Act of 1934, as amended. CALEA Implementation, *supra* note 17, at 14,993.

elsewhere functional dissimilarities between the two categories. For example, the FCC has stated that VoIP service providers do not map users to a specific location as is necessary for emergency 9-1-1 access, an essential service to local telephone service subscribers. However, the FCC elsewhere emphasized consumers' uses of VoIP primarily for long distance telephone services as the basis for ordering mandatory contributions to universal service funding. Similarly, the FCC has never stated that cable modem and DSL services provided by information service providers constitute a replacement of basic local exchange telephone services regulated as telecommunications services.

The stretch to shoehorn VoIP and Internet access services into something permissibly subject to CALEA becomes extremely tenuous in light of an explicit prohibition on including "persons or entities insofar as they are engaged in providing information services," a category defined in CALEA using the same language as that contained in the Communications Act. 119 The FCC gets around what appears to be an

116. E911 First Report and Order, supra note 11, at 10,259.

While the rules we adopt today apply to providers of all interconnected VoIP services, we recognize that certain VoIP services pose significant E911 implementation challenges. For example, the mobility enabled by a VoIP service that can be used from any broadband connection creates challenges similar to those presented in the wireless context. These "portable" VoIP service providers often have no reliable way to discern from where their customers are accessing the VoIP service.

Id.

117. Contribution Methodology, supra note 21, at 7545.

Our safe harbor [for allocating the percentage of VoIP traffic subject to the USF contribution requirement] is necessarily the product of line drawing. In adopting a safe harbor we consider what would be an appropriate analogue. One industry report has estimated that 83.8 percent of VoIP traffic in 2004 was either long distance or international and only 16.2 percent was local. Thus, it appears that VoIP traffic is predominantly long distance or international. As such, it is much like wireline toll service which similarly offers interstate, intrastate toll, and international services. In fact as stated in paragraph 55 below, VoIP services are often marketed as a substitute for wireline toll service. The percentage of interstate revenues reported to the Commission by wireline toll providers is 64.9 percent. We therefore find that establishing a safe harbor of 64.9 percent is reasonable for purposes of this interim action.

Id.

118. 47 U.S.C. § 1001(8)(c)(ii).

119. Compare 47 U.S.C. § 1001(6) (CALEA):

The term "information services"— (A) means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications; and (B) includes—(i) a service that permits a customer to retrieve stored information from, or file information for storage in, information storage facilities; (ii) electronic publishing; and (iii) electronic messaging services; but (C) does not include any capability for a telecommunications carrier's internal management, control, or operation of its

explicit exemption for information services by stating that, notwithstanding the use of nearly identical language, the CALEA definition of information service and telecommunications do not match the definitions contained in the Communications Act. The Commission justifies the distinction on CALEA's inclusion of a Substantial Replacement Provision ("SRP") that the Commission interprets as requiring it to deem certain service providers to be telecommunications carriers for CALEA purposes even when they would not so qualify under FCC regulation and even if they do not even fit with within CALEA's definition of telecommunications carrier:

We affirm our tentative conclusion that Congress intended the scope of CALEA's definition of "telecommunications carrier" to be more inclusive than the similar definition of "telecommunications carrier" in the Communications Act. Critically, while certain portions of the definition are the same in both statutes, CALEA's SRP "has no analogue" in the Communications Act, thus rendering CALEA's definition of "telecommunications carrier" broader than that found in the Communications Act. The SRP directs the Commission to deem certain providers to be telecommunications carriers for CALEA purposes, whether or not they satisfy the definition of telecommunications carrier in [CALEA's] sections 102(8)(A) and 102(8)(B)(i).

The FCC rationalizes this statutory interpretation by referring to the House of Representatives Committee Report that characterizes the SRP language as designed to include wireless and digital telephone services. ¹²¹ Additionally, the Commission concludes that VoIP and Internet access services meet a three part functional test of whether the candidate for CALEA regulation: 1) provides wire or electronic communication switching or transmission service; 2) offers a replacement for a substantial portion of the local telephone exchange service; and 3) warrants such regulation on public interest grounds. ¹²²

telecommunications network.

with 47 U.S.C. § 153(20) (Communications Act):

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

120. CALEA Implementation, supra note 17, at 14,993 (citations omitted).

121. *Id.* ("The SRP reflects Congress's intent to 'preserve the government's ability to intercept communications that use advanced technologies such as digital or wireless transmission." (quoting H.R. REP. NO. 103-827(I) (1994))).

122. Id. at 15,009 ("We find that providers of interconnected VoIP satisfy the three

The Commission determined that the first prong is satisfied because VoIP and Internet access providers combine their own packet switching technologies with leased or self-provisioned telecommunications transmission lines to provide a communication switching or transmission service. Embedded in this analysis is the assumption that because VoIP and Internet access ventures need telecommunications and switching technologies to provide their information services, they also "provide" rather than "offer" telecommunications. Bear in mind that in other proceedings, the FCC determined that when a venture engages in providing rather than offering telecommunications, it qualifies for classification as an information service provider because the provided telecommunications integrates into an offered information service. 123 But for purposes of determining whether CALEA requirements apply, VoIP and Internet

prongs of the SRP under CALEA's definition of "telecommunications carrier.").

Applying the legal framework set forth in section III.A above, we determine that facilities-based broadband Internet access providers satisfy each of the three prongs of the SRP: (1) they are providing a switching or transmission functionality; (2) this functionality is a replacement for a substantial portion of the local telephone exchange service, specifically, the portion used for dial-up Internet access; and (3) public interest factors weigh in favor of subjecting broadband Internet access services to CALEA.

Id. at 15,002 (finding broadband Internet access providers must comply with CALEA wiretapping requirements); id. at 15,011 ("The record thus indicates that the broadband Internet access provider and the interconnected VoIP provider must both be covered by CALEA in order to ensure that law enforcement agencies' surveillance needs are met.").
123. Brand X, 545 U.S. at 990-91.

The question, then, is whether the transmission component of cable modem service is sufficiently integrated with the finished service to make it reasonable to describe the two as a single, integrated offering. We think that they are sufficiently integrated, because "a consumer uses the high-speed wire always in connection with the information-processing capabilities provided by Internet access, and because the transmission is a necessary component of Internet access." telecommunications context, it is at least reasonable to describe companies as not "offering" to consumers each discrete input that is necessary to providing, and is always used in connection with, a finished service. We think it no misuse of language, for example, to say that cable companies providing Internet service do not "offer" consumers DNS, even though DNS is essential to providing Internet access. Likewise, a telephone company "offers" consumers a transparent transmission path that conveys an ordinary-language message, not necessarily the data transmission facilities that also 'transmit information of the user's choosing," or other physical elements of the facilities used to provide telephone service, like the trunks and switches, or the copper in the wires. What cable companies providing cable modem service and telephone companies providing telephone service "offer" is Internet service and telephone service respectively-the finished services, though they do so using (or "via") the discrete components composing the end product, including data transmission. Such functionally integrated components need not be described as distinct "offerings."

Id. (citations omitted).

access ventures are required to cooperate with law enforcement officials because they "provide" the same telecommunications links as used and "offered" by information service providers.

Curiously, the Commission claims the decision in *United States Telecom Ass'n v. F.C.C.*, ¹²⁴ supports its rationale, but that decision only provides the basis for interpreting CALEA as including the right of law enforcement authorities to access "call-identifying information" contained in packet headers ¹²⁶ routinely switched and routed by telecommunications carriers. ¹²⁷ The court largely reversed a previous FCC decision that sought to expand the scope of data CALEA regulated operators must provide including a "punch list" of more information than just the telephone number. The court rejected an expansion of what CALEA requires from telecommunications carriers because the FCC had statutory authority to impose additional requirements only if it found inadequacies in what the telecommunications industry volunteered to make available to law enforcement authorities and only if the Commission's proposed additional requirements could be secured in a cost-effective manner while also respecting privacy rights.

The FCC determined that VoIP and Internet access services satisfied the second prong because on functional grounds these services offer consumers a replacement for conventional telephone service as well as access to many non-local exchange services such as long distance

^{124. 227} F.3d 450, 464-66 (D.C. Cir. 2000).

^{125.} Call-identifying information refers to "dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier." 47 U.S.C. § 1001(2).

^{126.} Landau, supra note 10, at 424.

In such networks, fixed circuits are not dedicated for the duration of a communication. Instead, the data that is transmitted, whether files, email, Instant Messages, voice, is broken into small packets. Each packet travels its own route over the Internet. The entire set of contents is reassembled when it is received at the other end.

Id.

^{127.} United States Telecom Ass'n, 227 F.3d at 464.

In conventional circuit-mode telecommunications, a single circuit is opened between caller and recipient and all electronic signals that make up the communication travel along the circuit. In digital packet-switched networks, communications do not travel along a single path. Instead, a call is broken into a number of discrete digital data packets, each traveling independently through the network along different routes. Data packets are then reassembled in the proper sequence at the call's destination. Like an envelope, each digital packet has two components: it contains a portion of the communication message, and it bears an address to ensure that it finds its way to the correct destination and is reassembled in proper sequence. The address information appears in the packet's "header."

telephone calling, enhanced services and Internet access. The Commission never addressed how VoIP services and Internet access replace incumbent services as opposed to providing a competitive alternative. Similarly, the Commission never addressed the fact that most consumers access retail VoIP and other non-telephony services if, and only if, they acquire DSL and cable modem information services from incumbent carriers.

To satisfy the third public interest prong, the FCC reiterated a standard articulated in its Notice of Proposed Rulemaking that adopted language contained in the House Report on CALEA that classifying VoIP and Internet access providers as telecommunications carriers would "promote competition, encourage the development of new technologies, and protect public safety and national security." ¹²⁹

The FCC summarily dismissed the possibility that VoIP and Internet access services fit within the CALEA definition of information services by claiming that CALEA does not establish mutual exclusivity between telecommunications and information services, even though it surely establishes a dichotomy between services subject to compulsory wiretapping authority and those that are not. Free of having to make an absolute either/or decision, the FCC rationalized that because VoIP and Internet access satisfy the three-prong test and, in particular, the substantial replacement provision, i.e., VoIP and Internet access services replace conventional telephone services, the Commission could decide that a "service classified as an 'information service' under the Communications Act may not, in all respects, be classified as an 'information service' under CALEA." Accordingly the FCC decided

131. Id. at 14,999.

Equally important, the classification of a service provider as a telecommunications carrier under CALEA's SRP *does not limit* the Commission's options for classifying that provider or service under the Communications Act. We believe that the legal framework we have established in this Order for analyzing the applicability of CALEA to service providers under the SRP provides the clearest path, in a manner most consistent with Congress's intent, for identifying which services and service providers are subject to CALEA under the SRP.

^{128.} CALEA Implementation, *supra* note 17, at 14,994 ("We conclude that this requirement is satisfied if a service replaces any significant part of an individual subscriber's functionality previously provided via circuit-switched local telephone exchange service.").

^{129.} Id. at 14,996 (quoting H.R. REP. NO. 103-827(I) (1994)).

^{130.} Id. at 14,998.

Unlike the Communications Act, CALEA's "overall statutory scheme" does not require the Commission to classify an integrated service offering as solely a telecommunications service or solely an information service depending on "the nature of the functions that the end user is offered," and thus the classification of broadband Internet access services under the Communications Act is not controlling under CALEA.

Id

that:

[P]roviders of broadband Internet access service are not relieved of CALEA obligations as a result of CALEA's Information Services Exclusion. As we have noted, our interpretation of the term information services in CALEA differs from our interpretation of that term in the Communications Act. Thus, the fact that broadband Internet access service may be classified as an information service under the Communications Act does not determine its classification for CALEA purposes.¹³²

Because the FCC did not want to concede that VoIP services constitute information services, the FCC concluded that "providers of interconnected VoIP services¹³³ satisfy CALEA's definition of 'telecommunications carrier' under the SRP and that CALEA's Information Services Exclusion does not apply to interconnected VoIP services."

In American Council on Education v. F.C.C., ¹³⁵ the Court of Appeals for the District of Columbia affirmed the FCC's statutory interpretations using the two-pronged Chevron test. ¹³⁶ The court accepted the Commission's rationale that CALEA allowed the FCC to use a different mode of analysis and to reach a different conclusion as to what service classification VoIP and Internet access fit. No doubt influenced by the fact that CALEA addresses national security concerns,

Id. at 15,001.

132. CALEA Implementation, supra note 17, at 15,007.

133. The FCC has differentiated VoIP services that provide voice communications capabilities between computers and interconnected VoIP services with the former treated as an information service and the later not. *See* Petition for Declaratory Ruling that Pulver.com's Free World Dialup is Neither Telecomms. Nor a Telecomms. Serv., *Memorandum Opinion & Order*, 19 FCC Rcd. 3307 (2004). The FCC defines interconnected VoIP as having:

[T]he following characteristics: (1) the service enables real-time, two-way voice communications; (2) the service requires a broadband connection from the user's location; (3) the service requires IP-compatible CPE; and (4) the service offering permits users generally to receive calls that originate on the PSTN and to terminate calls to the PSTN.

E911 First Report and Order, supra note 11, at 10,257-58.

134. CALEA Implementation, supra note 17, at 15,008.

135. 451 F.3d 226 (D.C. Cir. 2006).

136. *Id.* at 231.

Our review is governed by the classic two-step approach set out in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* Under *Chevron,* "if the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." However, if the statute is "silent or ambiguous with respect to the specific question at issue," we ask whether the agency's interpretation is "permissible," that is, "reasonable."

the court considered it a reasonable policy choice and statutory interpretation for the FCC to emphasize the lack of precision and ambiguity in CALEA as grounds for the Commission's development of the three-pronged test for expanding regulation to carriers and services otherwise subject to little or no regulation under the Communications Act.

Because CALEA offers a more expansive definition of telecommunications carrier, including ones that replace conventional services and because CALEA does not establish mutual exclusivity between telecommunications and information services, the court endorsed a decision that emphasized the telecommunications aspects of a service that integrated both telecommunications and information services. Remarkably, a majority of the Supreme Court considered the very same telecommunications functionality and was persuaded that it constituted a subordinate and integrated element of a dominant information service.

Under CALEA, a service combining both telecommunications and information services needs only limited rationale for **emphasizing** the telecommunications component to justify ignoring the information services components. Under the Communications Act, a service combining both telecommunications and information services requires a plausible rationale for **subordinating** the telecommunications component to justify emphasizing the information service component. ¹³⁸

^{137.} The FCC interprets 47 U.S.C. § 1001(8)(B)(ii) (Substantial Replacement Provision (SRP)) as requiring the Commission to determine whether a hybrid service, which combines telecommunications and information service, constitutes a substantial replacement of a telecommunications service subject to the wiretapping provisions of the Act. The FCC established a three prong test for assessing whether a hybrid service, which the Commission might otherwise deem an information service, nevertheless should fit within CALEA's definition of a telecommunications service. CALEA Implementation, *supra* note 17, at 14,993. Applying the SRP, the Commission makes its telecommunications service classification based on whether a hybrid service venture is:

[[]E]ngaged in providing wire or electronic communication switching or transmission service to the extent that the Commission finds that such service is a replacement for a substantial portion of the local telephone exchange service and that it is in the public interest to deem such a person or entity to be a telecommunications carrier for purposes of CALEA.

Id. (quoting 47 U.S.C. § 1001(8)(B)(ii)).

^{138.} Cable Inquiry, *supra* note 15, at 4823.

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

As was the case in *Brand X* where Justice Scalia would not tolerate what he considered unlawful and unprincipled decision making, a similarly strong dissent was cast in *American Council on Education*. Senior Circuit Court Judge Edwards stated:

CALEA does not give the FCC unlimited authority to regulate every telecommunications service that might conceivably be used to assist law enforcement. Quite the contrary. Section 1002 is precise and limited in its scope. It expressly states that the statute's assistance capability requirements "do not apply to information services." Indeed, the Commission does not dispute this. Therefore, broadband Internet providers are exempt from the substantive provisions of CALEA.¹³⁹

Judge Edwards characterized the Commission's action as nothing short of "attempting to squeeze authority from a statute that does not give it... [with an] interpretation [that] completely nullifies the information services exception and manufactures broad new powers out of thin air." The Judge noted that the FCC could have concluded that CALEA could cover VoIP in light of the ability to apply the substantial replacement provision to services that do not fit within the information services category, but also do not otherwise directly fit within the definition of telecommunications carrier. Of course, to make such a decision the FCC would have had to state on the record that interconnected VoIP services do not constitute an information service, a conclusion that would call into question the Commission's rationale for deeming as information services DSL and cable modem Internet access services used by VoIP customers for access.

Regardless of whether VoIP services constitute information service, Judge Edwards correctly noted that the FCC has never concluded that Internet access could possibly constitute anything but an information service, as a general term of art, by applying either the Communications Act or CALEA.¹⁴¹ In a contribution to the collection of analogies used

other capabilities.

Id.

^{139.} Am. Council on Educ., 451 F.3d at 236 (Edwards, J., dissenting).

^{140.} Id. at 237.

^{141.} Id. at 238-39.

In gauging the plausibility of the FCC's purported authority, one surely must look to the FCC's treatment of the "information services" exception under the Communications Act. A term in one statute does not necessarily control the Commission's actions under another statute. But here the Commission's earlier rulings show that 'information services' has become a term of art. The agency cannot simply ignore its prior *consistent* constructions of "information services," especially when it offers no coherent alternative interpretation. Under the

by jurists to conceptualize regulatory challenges in an age of technological and market convergence, Judge Edwards asserts that the FCC could:

[N]o more contend that "information service" providers are really "telecommunications carriers" because their regulation can facilitate the law enforcement purposes of CALEA, than the agency could assert that those who operate "movie theaters" are really "radio broadcasters" because their regulation would facilitate control of indecent material pursuant to [law under] 18 U.S.C. § 1464 (2000). 142

The Judge concluded that the court had absolutely no permissible basis "to sustain the FCC's convoluted attempt to infer broad new powers under CALEA ... [by] simply abandon[ing] the well-understood meaning of 'information services' without offering any coherent alternative interpretation in its place."

III. ERODING A NEW COMPETITOR'S COMPARATIVE ADVANTAGES

The FCC has identified other rationales for regulating VoIP, whether the services provided telecommunications or information services. The Commission decided that functional deficiencies in access to emergency local calling services and access by disabled VoIP users warranted a quick remedy. Despite professing the need for deregulation, the removal of regulatory underbrush, and efforts to promote competition, the FCC increased VoIP service providers' regulatory burdens and in turn raised their operating costs. The Commission ordered VoIP service providers to retrofit their services on an expedited basis, 144 to provide access to hearing disabled users, 145 and to provide the same emergency 9-1-1 services as available from conventional telephone service carriers. 146 In other words, the FCC would not allow the marketplace to determine

Commission's current order, "information services" is meaningless.

Prior to the issuance of the instant Order, the Commission has consistently held that broadband Internet service is an "information service." It has never previously said otherwise. Indeed, it has never hinted otherwise.

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142. Id. at 239-40.

143. Id. at 240.

^{144.} E911 First Report and Order, *supra* note 11, at 10,266 ("We require that, within 120 days of the effective date of this Order, an interconnected VoIP provider must transmit all 911 calls, as well as a call back number and the caller's 'Registered Location' for each call . . . ").

^{145.} Access to Telecommunications Service, supra note 23, at 11,285.

^{146.} E911 First Report and Order, supra note 11, at 10,245.

whether considerable service discounts available from VoIP service providers outweighed the greater risk in an emergency and greater inconvenience for some users.

Lacking much of a direct statutory mandate¹⁴⁷ for requiring VoIP service providers to include E9-1-1 services already available from their full service incumbent competitors, the FCC invoked its ancillary jurisdiction under Title I.¹⁴⁸ The FCC chose not to apply Title II and deem interconnected VoIP services the functional equivalent of telecommunications services. Instead, the Commission determined that:

[I]nterconnected VoIP services are covered by the statutory definitions of "wire communication" and/or "radio communication" because they involve "transmission of voice by aid of wire, cable, or other like connection" and/or "transmission by radio" of voice [thereby triggering] . . . the Commission's subject matter jurisdiction granted in section 2(a) of the Act. ¹⁴⁹

For good measure, the FCC added that VoIP regulation enables the Commission to perform "various responsibilities" including promoting safety of life and property through the use of wire and radio communication. Additionally, the Commission rationalized that despite adding more regulatory burdens on interconnected VoIP service, the Commission's action would promote deployment of advanced telecommunications capabilities to all Americans in furtherance of the goals articulated by Section 706 of the Telecommunications Act of 1996. Presumably by adding regulatory and financial burdens on VoIP, in mandating E9-1-1 services and access by disabled persons, such regulatory parity and "uniform availability of E9-1-1 services may spur consumer demand for interconnected VoIP services, in turn driving demand for broadband connections, and consequently encouraging more broadband investment and deployment consistent with the goals of

^{147.} The FCC did invoke Section 251 of the Communications Act that authorizes the FCC to regulate the North American Numbering Plan that established area codes used in long distance telephone calling. *Id.* at 10,265 ("We exercise our authority under section 251(e) of the Act because interconnected VoIP providers use NANP numbers to provide their services").

^{148.} *Id.* at 10,261 ("We find that regardless of the regulatory classification, the Commission has ancillary jurisdiction to promote public safety by adopting E911 rules for interconnected VoIP services.").

^{149.} Id. at 10,262.

^{150.} Id. at 10,262-63.

^{151. 47} U.S.C. § 157.

^{152.} To implement the Commission order, VoIP service providers, in many instances, will end up paying their incumbent telephone company competitors for access to the existing wireline E9-1-1 network.

section 706."153

A. Have Courts Become Too Deferential to the FCC?

Unlike its recent appellate track record on media matters, 154 the FCC has successfully persuaded appellate courts to defer to its expertise on telecommunications policy matters. The Commission has not always enjoyed such deference. For example, the FCC tried unsuccessfully over a number of years to interpret the Communications Act as permitting it to eliminate the requirement that all telecommunications service providers file public service contracts, known as tariffs, which specify the terms and conditions of service. 155 Despite an explicit requirement that common carriers file reasonable and nondiscriminatory tariffs, 156 the FCC sought to interpret statutory authority for modifying the tariffing requirement 157 as statutory authority for eliminating this requirement for carriers lacking market power and not having the ability to affect the supply or price of their services. The Commission sought to promote the public interest by eliminating a regulatory burden on carriers lacking Despite changes in the telecommunications market dominance. marketplace, including the onset of robust facilities-based competition for the long distance telephone service, courts repeatedly reversed the FCC on grounds that it lacked statutory authority:

Since an agency's interpretation of a statute is not entitled to

Every common carrier, except connecting carriers, shall, within such reasonable time as the Commission shall designate, file with the Commission and print and keep open for public inspection schedules showing all charges, . . . whether such charges are joint or separate, and showing the classifications, practices, and regulations affecting such charges.

Id

157. Id. § 203(b)(2).

The Commission may, in its discretion and for good cause shown, modify any requirement made by or under the authority of this section either in particular instances or by general order applicable to special circumstances or conditions except that the Commission may not require the notice period specified in paragraph (1) to be more than one hundred and twenty days.

^{153.} E911 First Report and Order, supra note 11, at 10,264.

^{154.} See Prometheus Radio Project v. F.C.C., 373 F.3d 372 (3d Cir. 2004); Fox Television Stations, Inc. v. F.C.C., 280 F.3d 1027, 1043-44, 1051-52 (D.C. Cir. 2002), modified on reh'g, 293 F.3d 537 (D.C. Cir. 2002).

^{155.} See MCI Telecomms. Corp. v. Am. Tel. & Tel. Co. (MCI v. AT&T), 512 U.S. 218 (1994); see also Am. Tel. & Tel. Co. v. F.C.C., Nos. 92-1628 & 92-1666, 1993 WL 260778 (D.C. Cir. June 4, 1993), aff'd, MCI v. AT&T, 512 U.S. 218; Am. Tel. & Tel. Co. v. F.C.C., 978 F.2d 727 (D.C. Cir. 1992); MCI Telecomms. Corp. v. F.C.C., 765 F.2d 1186 (D.C. Cir. 1985).

^{156. 47} U.S.C. § 203(a).

deference when it goes beyond the meaning that the statute can bear, [citing *Pittston Coal Group v. Sebben*, 488 U.S. 105, 113 (1988), and *Chevron*, 467 U.S., at 842-843], the Commission's permissive detariffing policy can be justified only if it makes a less than radical or fundamental change in the Act's tariff-filing requirement. The Commission's attempt to establish that no more than that is involved greatly understates the extent to which its policy deviates from the filing requirement, and greatly undervalues the importance of the filing requirement itself.¹⁵⁸

Even if they agreed that the FCC's proposal made sense, reviewing courts were constrained by the fact that Congress had not revised the Communications Act to permit the FCC to eliminate the application of common carrier responsibilities specified in Title II:

But our estimations, and the Commission's estimations, of desirable policy cannot alter the meaning of the federal Communications Act of 1934. For better or worse, the Act establishes a rate-regulation, filed-tariff system for common-carrier communications, and the Commission's desire "to 'increase competition' cannot provide it authority to alter the well-established statutory filed rate requirements"¹⁵⁹

Congress eventually provided the FCC with the necessary statutory authority, in the Telecommunications Act of 1996,¹⁶⁰ to order carriers to eliminate their tariffs, and a reviewing court readily affirmed the Commission's decision.¹⁶¹

Unlike the decade-long process for securing confirmation of its lawful authority to change telecommunications policy, the FCC seeks greater flexibility to act based on creative claims that a direct statutory link exists or based on the view that the public interest and broad ancillary jurisdiction under Title I support the Commission's action. In its best light, what drives this quest for flexibility is a sense that changing circumstances require the FCC to respond more quickly, particularly when marketplace conditions have evolved to a point where the Commission can streamline, reduce, or eliminate government oversight. In its worse light, the FCC engages in decision making with a preordained outcome designed to accrue political dividends and support

^{158.} MCI v. AT&T, 512 U.S. at 229.

^{159.} Id. at 233 (citations omitted).

^{160. 47} U.S.C. § 160(c) ("Any telecommunications carrier, or class of telecommunications carriers, may submit a petition to the Commission requesting that the Commission exercise the authority granted under this section with respect to that carrier or those carriers").

^{161.} See MCI WorldCom, Inc. v. F.C.C., 209 F.3d 760 (D.C. Cir. 2000).

economic doctrine regardless of the facts and regardless of whether the decision unfairly and unlawfully tilts the competitive playing field in favor of one group of stakeholders over others.

Unlike many previous attempts to stretch its statutory authority, primarily to reduce regulations and the scope of government oversight, the FCC now seeks authority to pursue many different objects not limited to deregulation. Recently, the FCC has sought to aid in the enforcement of digital rights management by requiring manufacturers of television sets to process received instructions that specify the copying and retransmission opportunities available to consumers. The Circuit Court of Appeals for the District of Columbia reversed the FCC's broadcast flag regulatory regime with a stinging rebuke. Characterizing the FCC's action as the most sweeping assertion of authority in the Commission's seven decades of existence, the court rejected the use of ancillary jurisdiction under Title I in lieu of explicit Congressional authorization:

The Commission recognized that it may exercise ancillary jurisdiction only when two conditions are satisfied: (1) the Commission's general jurisdictional grant under Title I covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities. The Commission's general jurisdictional grant under Title I plainly encompasses the regulation of apparatus that can receive television broadcast content, but only while those apparatus are engaged in the process of receiving a television broadcast. Title I does not authorize the Commission to regulate receiver apparatus after a transmission is complete. As a result, the FCC's purported exercise of ancillary authority founders on the first condition. There is no statutory foundation for the broadcast flag rules, and consequently the rules are ancillary to nothing. Therefore, we hold that the Commission acted outside the scope of its delegated authority when it adopted the disputed broadcast flag regulations. 164

^{162.} Digital Broadcast Content Protection, Report & Order & Further Notice of Proposed Rulemaking, 18 FCC Rcd. 23,550 (2003), vacated in part, rev'd in part, Am. Library Ass'n v. F.C.C. (ALA), 406 F.3d 689, 708 (D.C. Cir. 2005).

^{163.} ALA, 406 F.3d at 708.

In this case, all relevant materials concerning the FCC's jurisdiction—including the words of the Communications Act of 1934, its legislative history, subsequent legislation, relevant case law, and Commission practice—confirm that the FCC has no authority to regulate consumer electronic devices that can be used for receipt of wire or radio communication when those devices are not engaged in the process of radio or wire transmission.

The court determined that broadcast flags operate as a curb on digital television reception equipment, redistributing digital broadcast content after having received the content and not on the actual broadcast transmission. ¹⁶⁵ Finding no Congressional authority for FCC regulation of consumer use of already broadcast content, the court refused to defer to agency expertise using the *Chevron* and *Mead* standards. ¹⁶⁶ The court reasoned that, absent the need for explicit Congressional authority, the FCC would have plenary authority to regulate any consumer electronics and computer devices, a massive expansion of the Commission's regulatory wingspan. ¹⁶⁷

The court also rejected the Commission's ancillary jurisdiction foundation based on the Communications Act. With references to several communications cases where a court endorsed ancillary jurisdiction, the D.C. Circuit Court of Appeals noted that all prior cases with precedential value involved an entity engaged in "communication by wire or radio":

The Court's decisions in Southwestern Cable, Midwest Video I, and Midwest Video II were principally focused on the second prong of the ancillary jurisdiction test. This is unsurprising, because the subject matter of the regulations at issue in those cases—cable television—constituted interstate communication by wire or radio, and thus fell within the scope of the Commission's general jurisdictional grant under Title I of the Communications Act. However, these cases leave no doubt that the Commission may not invoke its ancillary jurisdiction under Title I to regulate matters outside of the compass of communication by wire or radio. 168

The court also rejected the FCC's rationale that broadcast flag processing regulations could lawfully fit within the Commission's congressionally authorized responsibility for promulgating technical

^{165.} Id. at 693.

The effectiveness of the broadcast flag regime is dependent on programming being flagged and on devices capable of receiving broadcast DTV signals (collectively "demodulator products") being able to recognize and give effect to the flag. Under the rule, new demodulator products (e.g., televisions, computers, etc.) must include flag-recognition technology. This technology, in combination with broadcasters' use of the flag, would prevent redistribution of broadcast programming.

Id.

^{166.} *Id.* at 705; *see* United States v. Mead Corp., 533 U.S. 218, 226-27 (2001) ("[I]mplementation of a particular statutory provision qualifies for *Chevron* deference when it appears that Congress delegated authority to the agency . . . to make rules carrying the force of law, and [the regulation was] promulgated in the exercise of that authority."); *Chevron*, 467 U.S. at 843-44; *supra* note 36 and accompanying text.

^{167.} ALA, 406 F.3d at 705.

^{168.} Id. at 702.

requirements for television receiving equipment as part of its implementation of rules relating to the transition from analog to digital television. 169

Even when the FCC seeks to liberalize its regulations, at least some reviewing courts will examine closely the nature of the FCC's statutory mandate and the reasonableness of how the Commission acted on its authority. For example, the FCC's rationale and methodology for retention of some media ownership rules and relaxation of other rules has not fully passed muster with reviewing courts. Most recently, the FCC reconsidered the 35% national audience reach limit for broadcast television networks and its rules on local television ownership, radio/television cross-ownership and the prohibition on ownership of two national broadcast networks by a single owner. The provided statutory mandate and the prohibition on ownership of two national broadcast networks by a single owner.

The Third Circuit Court of Appeals in *Prometheus Radio Project*, held that the FCC's decision to replace its newspaper/broadcast cross-ownership rules with cross-media limits did not violate the Constitution or the '96 Act, but that the Commission did not sufficiently justify its particular chosen numerical limits for cross-ownership of media within

169. Id. at 706.

It is enough here for us to find that the Communications Act of 1934 does not indicate a legislative intent to delegate authority to the Commission to regulate consumer electronic devices that can be used for receipt of wire or radio communication when those devices are not engaged in the process of radio or wire transmission. That is the end of the matter. It turns out, however, that subsequent legislation enacted by Congress *confirms* the limited scope of the agency's ancillary jurisdiction and makes it clear that the broadcast flag regulations exceed the agency's delegated authority under the statute.

Id.

170. In 2000, the FCC sought to retain a 35 percent market penetration cap on national television ownership, as well as existing cable/broadcast cross-ownership. See 1998 Biennial Regulatory Review - Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecomms. Act of 1996, Biennial Review Report, 15 FCC Rcd. 11,058 (2000). On appeal, the United States Court of Appeals for the D.C. Circuit held that the Commission had not sufficiently explained its reasons for retaining either of these rules. See Fox Television Stations, 280 F.3d at 1043-44, 1051-52; see also Sinclair Broad. Group, Inc. v. F.C.C., 284 F.3d 148 (D.C. Cir. 2002) (affirming local television multiple-ownership rule allowing television station duopolies, so long as at least one of the stations is not ranked among the market's four largest stations and at least eight independently owned and operated full-power television stations remain in the market, but remanding for lack of a stated rational basis the exclusion of non-broadcast media from the eight voices exception).

171. See 2002 Biennial Regulatory Review - Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecomms. Act of 1996, Notice of Proposed Rulemaking, 17 FCC Rcd. 18,503 (2002); 2002 Biennial Regulatory Review - Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecomms. Act of 1996, Report & Order & Notice of Proposed Rulemaking, 18 FCC Rcd. 13,620 (2003), aff'd in part, remanded in part, Prometheus, 373 F.3d 372.

local markets. While the court affirmed the FCC's decision to retain the local television ownership rule restricting combinations of four largest stations in any market, it held that the Commission's modification to allow triopolies in markets of 18 stations or more and duopolies in other markets was unsupported by the evidence. The court also rejected the methodology used by the FCC to assess the degree of competition in broadcast markets and used to justify the retention of numerical ownership restrictions: Yet no matter what the Commission decides to do to any particular rule—retain, repeal, or modify (whether to make more or less stringent)—it must do so in the public interest and support its decision with a reasoned analysis."

B. Reasoned Analysis or Results-Oriented Decision Making?

The FCC's application of definitions contained in the Communications Act has provided it with a plausible statutory link for devising semantic dichotomies between telecommunications and telecommunications service and between providing and offering services. With these dichotomies the Commission has found ways to reclassify a telecommunications service as an information service and to expand the information service deregulatory safe harbor. Where the FCC can make no plausible link to statutory definitions, the Commission still can pursue either furtherance of its deregulatory mission or selective re-regulation based on its perception that Title I of the Communications Act provides broad ancillary jurisdiction to act in the public interest.¹⁷⁵

172. Prometheus, 373 F.3d at 420.

The deference with which we review the Commission's line-drawing decisions extends only so far as the line-drawing is consistent with the evidence or is not "patently unreasonable." The Commission's numerical limits are neither. No evidence supports the Commission's equal market share assumption, and no reasonable explanation underlies its decision to disregard actual market share. The modified rule is similarly unreasonable in allowing levels of concentration to exceed further its own benchmark for competition (1800) – a glaring inconsistency between rationale and result. We remand the numerical limits for the Commission to support and harmonize its rationale.

Id. (citations omitted).

173. *Id.* at 382 ("Most importantly, the Commission has not sufficiently justified its particular chosen numerical limits for local television ownership, local radio ownership, and cross-ownership of media within local markets. Accordingly, we partially remand the Order for the Commission's additional justification or modification").

174. Id. at 395.

175. The Commission has stated that, should it be so inclined, it could impose non-discrimination and other operational limitations on Internet Service Providers based on its Title I ancillary jurisdiction. Broadband Industry Practices, *Notice of Inquiry*, 22 FCC Rcd. 7894, 7896 (2007) ("The Commission, under Title I of the Communications Act, has the ability to adopt and enforce the net neutrality principles it announced in the Internet Policy Statement."); *see also* Appropriate Framework for Broadband Access to the Internet Over

The FCC's statutory analysis of definitions and the scope of its Title I authority has generated mixed results when subject to judicial review. Some courts accord the Commission extraordinary latitude using the *Chevron* two-prong analysis, perhaps augmented by a reluctance to second guess an expert regulatory agency on highly technical matters, on the Commission's conclusions about how robustly competitive broadband and other markets have become, ¹⁷⁶ and on the Commission's economic policy analysis. ¹⁷⁷ Other courts that have reversed the FCC and judges filing strong dissents have refused to defer to the Commission notwithstanding subject matter complexity. Indeed, much of the judicial analysis, whether affirming, reversing, or dissenting, relies on analogies and analysis of common word meanings, such as "offer" and "provide."

CONCLUSION

On balance, the FCC has contributed to regulatory uncertainty rather than maintain a bright line between regulated telecommunications services and unregulated information services. Technological convergence and innovations challenge whether Congress can fashion long-standing definitions that the FCC can use to determine the scope of government oversight. But the Commission has exacerbated this quandary by aggressively pursuing a deregulatory mission even as it must backtrack and re-impose regulatory burdens on information services. Additionally, the FCC has overstated the current and prospective degree of facilities-based and resale competition in next generation services by using unrealistic definitions of what constitutes high speed broadband

Wireline Facilities, *Policy Statement*, 20 FCC Rcd. 14,986 (2005) (articulating network neutrality policy objectives); Rob Frieden, *Internet 3.0: Identifying Problems and Solutions to the Network Neutrality Debate*, 1 INT'L J. OF COMM. 461 (2007), *available at* http://ijoc.org/ojs/index.php/ijoc/article/view/160/86; Rob Frieden, *Network Neutrality or Bias?—Handicapping the Odds for a Tiered and Branded Internet*, 29 HASTINGS COMM. & ENT. L. J. 171 (2007).

176. Notably, the Supreme Court deferred to the Commission and found that: The Commission concluded that "broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market." This, the Commission reasoned, warranted treating cable companies unlike the facilities-based enhanced-service providers of the past. We find nothing arbitrary about the Commission's providing a fresh analysis of the problem as applied to the cable industry, which it has never subjected to these rules. This is adequate rational justification for the Commission's conclusions.

Brand X, 545 U.S. at 1001-02 (citations omitted).

177. For example, the Circuit Court of Appeals for the District of Columbia endorsed the FCC requiring VoIP operators to make universal service contributions based on the principle of "competitive neutrality – a principle that requires advantaging no one technology over another – favors making VoIP providers contribute because they increasingly compete with analog voice service providers, who contribute to the USF." *Vonage*, 489 F.3d at 1236.

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service¹⁷⁸ and by generating faulty statistics of market penetration.¹⁷⁹ By concluding that robust competition exists when it does not, the FCC rationalizes the appropriateness of a campaign to eliminate conventional Title II regulation even for services that retrofit plant used to provide voice telephone service. Fuzzy math, buying into creative new economic "rules," and compiling deceptively optimistic market penetration statistics constitute some of the tactics the FCC has used to rationalize its chosen regulatory, re-regulatory, and deregulatory decisions.

Judicial review has not provided a reliable bulwark against decisions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." With far too few exceptions, courts do not scrutinize closely the FCC's statistical compilations, empirical evidence gathering, and conclusions about marketplace conditions. Most courts willingly defer to the FCC's projections about the impact of a policy shift, including ones ostensibly designed to promote competition even as they permit media consolidation and mergers as well as the abandonment of conventional common carrier regulatory safeguards.

The combination of lax judicial and legislative oversight as well as the FCC's pursuit of political, philosophical, and economic policy objectives, regardless of the factual record, have substantial adverse effects. Poor market penetration by next generation networks and even the failure to install and operate such networks can no longer be attributed to "confiscatory" regulatory policies. The information

^{178.} According to a recent FCC report on broadband, the FCC uses the term "high-speed" to "describe services that provide the subscriber with transmissions at a speed in excess of 200 kilobits per second (kbps) in at least one direction" and uses the term "Advanced services" for those services that "provide the subscriber with transmission speeds in excess of 200 kbps in each direction," calling them a "subset of high-speed services." WCB REPORT, *supra* note 9, at 1 n.1.

^{179.} The FCC uses zip codes for assessing broadband access and deems the entire area served if it can find at least one user within the zip code. *Id.* at 3 ("The Commission's data collection program requires providers to list the Zip Codes in which the provider has at least one high-speed connection in service to an end user, and 99% of Zip Codes were listed by at least one provider.").

^{180. 5} U.S.C. § 706(2)(A).

^{181.} In their objection to interconnection requirements imposed by the '96 Act, incumbent telephone companies used the term "confiscatory" to characterize the burden created. These carriers objected to the FCC's statutory interpretation of the terms, conditions and scope relating to the carriers' obligation to lease to competitors facilities and services on rates below what the incumbent carriers would require in direct negotiations with market entrants. The Supreme Court on two occasions endorsed the FCC's implementation of a Congressional mandate to promote competition by requiring significant cooperation between incumbents and market entrants. In AT&T Corp. v. Iowa Utilities Board, 525 U.S. 366 (1999), the Supreme Court largely upheld the Commission's implementation of Section 251 as a reasonable exercise of its rulemaking authority, including its requirement that incumbent carriers unbundle various network elements and offer market entrants the opportunity to pick and choose from an ala carte menu or platform of services and functions. The Court also ruled that in identifying which network elements ILECs should unbundle, the Commission did not

service safe harbor and the largely unregulated Commercial Mobile Radio Service classification for wireless networks¹⁸² have largely removed government oversight, including traditional common carrier interconnection responsibilities. Yet the United States significantly lags in both wireline and wireless broadband market penetration.¹⁸³ Rather than dispute the statistical compilations made by organizations with no reason to have bias against the United States,¹⁸⁴ the FCC and reviewing

limit the set of network elements to those necessary to promote competition whose absence from the list might impair market entrants' ability to compete. In other words the Court did not deem unconstitutional the Congressional mandate of requiring incumbent carriers to unbundled their networks and make each element available to competitors. The Court also largely deferred to the FCC's determination how to price such access. In *Verizon Communications, Inc. v. F.C.C.*, 535 U.S. 467 (2002), the Court rejected incumbent local exchange carrier arguments that using a theoretical, most efficient cost model, instead of actual historical costs, constituted a taking that violated the Fifth Amendment. The court noted that no party had disputed any specific rate established by the TELRIC pricing model and concluded that "regulatory bodies required to set [just and reasonable] rates . . . have ample discretion to choose methodology." *Id.* at 500.

- 182. The FCC is authorized to forbear from applying most of the Title II common carrier regulations to commercial mobile radiotelephone service providers, such as cellulal radiotelephone carriers, if:
 - (i) enforcement of such provision is not necessary in order to ensure that the charges, practices, classifications, or regulations for or in connection with that service are just and reasonable and are not unjustly or unreasonably discriminatory;
 - (ii) enforcement of such provision is not necessary for the protection of consumers; and
- (iii) specifying such provision is consistent with the public interest. 47 U.S.C. \S 332(c)(1)(A)(i)-(iii).
- 183. Despite technological superiority in many areas, the U.S. lags in broadband market penetration. The Organization for Economic Cooperation and Develop reports that the United States ranked twelfth in broadband penetration as of June 2006. Organisation for Economic Co-Operation and Development, Broadband Statistics to June 2007, http://www.oecd.org/sti/ict/broadband (last visited Apr. 10, 2007). The International Telecommunication Union ranked the United States fifteenth in the world in terms of broadband penetration per 100 inhabitants as of January 2006. Int'l Telecomm. Union, Statistics for January http://www.itu.int/osg/spu/newslog/ITU+Broadband+Statistics+For+1+January+2006.aspx (last visited Apr. 10, 2008). The ITU's broader benchmarking of the most important indicators for measuring a nation's capability to promote information and communications technologies and the "Information Society" ranked the United States twentieth in the world Telecomm. Union, Digital Opportunity http://www.itu.int/osg/spu/statistics/DOI/index.html (last visited Apr. 10, 2008).

184. See Letter from Ambassador David A. Gross, U.S. Coordinator for Int'l Commc'ns & Info. Policy, to Angel Gurria, Sec'y-Gen., Organisation of Econ. Co-Operation & Dev. (Apr. 24, 2007), available at http://www.ntia.doc.gov/ntiahome/press/2007/State_OECD_042407.pdf (objecting to OECD statistical compilation of broadband market penetration); see also National Telecommunications and Information Administration, Fact Sheet: United States Maintains Information and Communication Technology (ICT) Leadership and Economic Strength, http://www.ntia.doc.gov/ntiahome/press/2007/ICTleader_042407.html (last visited Apr. 10, 2008) (offering explanations why scope of broadband access in places such as government offices and coffee shops means that the OECD ranking underestimates market penetration).

courts should consider the impact of their action and inaction. Instead of promoting investment and competition in next generation networks, the largely unregulated information service safe harbor has helped create a broadband duopoly with a record of mediocre performance and aspirations.