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# TELECOMMUNICATIONS

## A PROPOSAL FOR A NEW DIGITAL AGE COMMUNICATIONS ACT

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Technological and marketplace developments have forced a re-thinking of the premises of communications regulation. Advances in transmission technologies, in computerized switching, and in the creation of digital content have fundamentally altered the communications and information services marketplace. Innovative digital services and applications, coupled with high-speed broadband delivery networks, are radically changing the frontier of whole industries and markets by enabling new competitors to enter the marketplace. Most importantly, this combination of new technologies and increased marketplace competition across almost all communications markets means individuals and businesses have access to more communications and information services than ever before.

### Convergence and Competition Undermine the Existing Regulatory Regime

The rapid digitalization of transmission and content into the language of 1s and 0s has had two long-anticipated but now increasingly acknowledged effects. Communications services such as voice telephony, for example, long associated with only one or two transmission technologies, now are provided over many. In addition to traditional wire-line transmissions, much voice traffic is now carried on wire-line systems, and a growing amount is carried using the Voice-over-Internet Protocol (VoIP) over the Internet. With their increased bandwidth, newly-installed broadband platforms can provide the full range of communications services, from voice, to data, to video.

Moreover, digitalization is creating increased competition among service providers previously limited to offering single services. Thus, those providers previously known as “cable television” companies are providing voice services to residential customers; those previously known as “telephone companies” are deploying fiber to provide their own “triple play” of voice, video, and high-speed data services. And satellite providers, cell phone companies, and other new entrants are providing increasing competition in many traditionally concentrated markets, while potential new entrants, such as wide-area wireless and power companies, lurk on the sidelines as future competitors. In other words, the long-predicted era of convergence and competition has arrived.<sup>1</sup>

Convergence and competition challenge the fundamental underpinnings of the existing regime of communications regulation. The Communications Act of 1934 and its predecessors were principally concerned about control of monopoly power in an era in which, in most markets, only a single provider offered service. The Telecommunications Act of 1996<sup>2</sup> acknowledged the existence of competition in many markets, and it lifted legal barriers to the entry of new

players in telecommunications markets. But the 1996 Act, itself only an amendment to the 1934 Act, had as a principal focus controlling the then-existing monopoly power in local telecommunications markets while implementing new means of introducing competition into those markets.<sup>3</sup>

And under both laws—and thus the law as it stands today—specific regulatory treatment is based on the techno-functional characteristics of the services those providers are offering. The current regime is often referred to as a “silo” or “smokestack” regime because a distinct set of regulations with a distinct set of regulatory consequences attach to a service once it is classified under one or another of the statute’s service definitions, for example, “telecommunications service,” “information service,” or “cable service.” These statutory definitions are mutually exclusive and are based upon techno-functional constructs are anachronisms in a digital world.<sup>4</sup>

Consider, for example, the definitions of “telecommunications” and “information service” that are at the forefront of today’s most hotly contested regulatory battles. “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 sent and received.”<sup>5</sup> An “information service” is “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications. . . . 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.”<sup>6</sup> These definitions are nothing if not grounded firmly in techno-functional constructions: transmitting information among points “specified by the user,” “without a change in form or content,” “generating,” “storing,” “processing,” “retrieving,” “transforming” information, and so on.

Think about the meaning of the words at the core of those definitions. What does it mean to say “transforming” information, or transmitting information “without change in the form or content” of the information. When you and I exchange instant messages, and I key-in the letter in one font size and, as a result of your terminal settings or mine, or your ISP’s or mine, you receive the letter in another size or in another color, has there been a change in form or content of the information, or a transformation of the information? This is the stuff of debate by digital-age philosophers, which is why the existing definitions necessarily lead to regulatory classification determinations that seem grounded more in metaphysical distinctions than in sound policy rationales.<sup>7</sup>

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Sound policy would dictate that services that are comparable from a consumer's perspective and that compete against one other in the marketplace be regulated comparably. But that is not the case under the current law and regulations. For example, for several years, broadband service provided by cable operators was classified as an unregulated "information service," while the telephone companies' comparable broadband service remained classified as a "telecommunications service" subject to public utility-type rate regulation and nondiscriminatory access requirements.<sup>8</sup> Similarly, certain Internet telephony services are classified as "information services," thus exempting providers of these services from making payments to the universal service fund that subsidizes low-income subscribers and those living in high-cost areas. Providers of traditional analog voice services are required to contribute a percentage of their revenues to support universal service programs. These differences arising from regulatory classification are consequential. Inevitably they lead to attempts to engage in regulatory arbitrage and political gaming of the system. A tweak of a bell here or whistle there might change the regulatory classification of an offering without really altering the market position of the service provider.

#### **A New Market-Oriented Regulatory Paradigm**

The development of competition eliminates the need for laws designed to limit monopoly power, and, in particular, laws that presume—as both the telephony and cable television titles of the current Communications Act largely do—that the providers of certain kinds of services have dominant market power.<sup>9</sup> The 1934 Act set as its goal making available "to all the people of the United States . . . a rapid, efficient, Nation-wide, and world wide wire and radio communications service,"<sup>10</sup> and the importance of communications services to the functioning of our democracy and our nation's economy cannot be denied. But most essential goods and services in this country are effectively and efficiently provided by competitive markets, and there is no reason why, except in fairly rare circumstances, this cannot be true in communications markets. And, in any event, convergence enabled by digital age technologies has rendered the current regulatory scheme obsolete.

Recognizing these developments, many have called for a rewrite of the Communications Act, and bills are beginning to be introduced in Congress that would make substantial changes in existing law.<sup>11</sup> What we propose here is the adoption of a new regulatory framework that might be part of a new Digital Age Communications Act.<sup>12</sup> Under our model framework, regulation would be based, almost exclusively, on competition law principles drawn from antitrust law and economics. Regulation would respond to instances of abuse of market power that are more than transitory in nature, and it would address such instances of abuse as they occur. The regulator would act principally through adjudication, responding as antitrust authorities do, to correct abuses as they occur, largely eliminating the existing elaborate web of rules and regulations that has grown up under the

existing statute and minimizing the promulgation of new rules in the future.

The new framework borrows heavily from the Federal Trade Commission Act. With respect to competition issues, the Federal Trade Commission acts principally under the antitrust laws. Thus, at the outset, the new communications act would declare that it is the policy of the United States that the FCC's "decisions should be based on jurisprudential principles grounded in market-oriented competition analysis such as those commonly employed by the Federal Trade Commission and the United States Department of Justice in enforcing the Federal Trade Commission Act and the antitrust laws of the United States." It also would declare that it is the policy of the United States that "economic regulation of communications markets should be presumed unnecessary absent circumstances that demonstrate the existence of a threat of abuse of market power that poses a substantial and non-transitory risk to consumer welfare." In effect, the presumption in favor of regulation that operates throughout many parts of the current act would be replaced by a presumption in favor of relying, whenever possible, on competition to protect consumers.

Like the FTC, the FCC would be authorized to prevent "unfair methods of competition." In addition to the clear declarations of policy presuming a less regulatory, market-oriented regime, the new statute would define "unfair competition" in a way that firmly ties the lawfulness of the agency's actions to competition-based analysis that focuses on consumer welfare, and not the welfare of competitors. The meaning of "unfair competition" is tied to an established body of jurisprudence emphasizing rigorous economic analysis in connection with market determinations. Unlike the current act, the FCC would not be empowered to base its decisions on vague standards such as the "public interest" or "just and reasonable" practices.

With respect to interconnection of competing networks, the FCC's authority would not be tied quite as strictly to antitrust jurisprudential principles as it would be for all other actions, even though it would be circumscribed much more than it is under the current statute. The new regulatory framework would permit the FCC to order the interconnection of communications networks in situations in which markets are not adequately providing interconnection and in which the denial of interconnection would substantially harm consumer welfare.

The justification for a somewhat more relaxed, but still market-oriented, standard for the agency's interconnection authority is two-fold. First, although communications markets increasingly are becoming competitive, in some access markets competition is likely to be among a relatively small number of facilities-based providers. This, coupled with the network effects that inhere in communications markets, means that the strategic denial of interconnection may be a rational competitive strategy—and that private benefits from the denial of interconnection may not align with total social

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welfare. Second, the economic and non-economic benefits of an integrated communications network, for commerce, for education, for individual fulfillment, and for facilitating the free exchange of ideas in our democracy, are very important. Authorizing the FCC to require interconnection under the limited circumstances when markets are not adequately providing interconnection and when consumer welfare will be harmed absent such interconnection should be sufficient to preserve the integrity of communications networks without imposing a heavy-handed regulatory structure covering all aspects of these increasingly dynamic markets.

Our proposed model deviates from a pure antitrust model most significantly by retaining a sector-specific regulator, although it is an agency with a much more circumscribed regulatory mandate. The FCC is retained both to promote uniformity in increasingly national communications markets and to develop a body of expertise necessary to supervise interconnection or other competition matters in communications markets. A sector-specific regulator has several advantages over reliance on traditional antitrust jurisdiction. The common law process of antitrust depends upon the development of facts on a case-by-case basis, through the adversary process. As Justice Stephen Breyer has noted, “[c]ourts have difficulty investigating underlying circumstances—particularly changes in circumstances—because they depend upon a record, produced through an adversarial process, for their information.”<sup>13</sup> And enforcement under a pure antitrust regime requires time to produce a uniform rule, incorporating proceedings in both trial and appellate courts, perhaps in multiple jurisdictions.

Importantly, the Supreme Court has recently expressed doubt that antitrust law and generalist antitrust courts are able to resolve the sorts of disputes most likely to occur in the new broadband markets. In *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP*, the Court noted that in telecommunications markets remedies for refusal to grant access to networks or facilities “will ordinarily require continuing supervision of a highly detailed decree,” and that “an antitrust court is unlikely to be an effective day-to-day enforcer of these detailed sharing obligations.”<sup>14</sup>

Of course, the Federal Trade Commission itself has nationwide adjudicatory jurisdiction, which promotes uniformity, and the FTC has investigatory authority as well as adjudicatory authority that may be used to develop relevant expertise. We recognize that eliminating sector-specific regulation, discontinuing the FCC entirely, and giving the FTC express jurisdiction over communications markets would emphasize much more starkly the break with FCC regulation that has rested broadly on the “public interest” standard. This FCC-elimination option might also decrease public choice concerns, as an agency with more general jurisdiction like the FTC would shift to other concerns if telecommunications markets presented no particular competition problems. A sector-specific regulator might be induced to continue regulating a sector to preserve its own mission.

Despite these concerns, we recommend maintaining sectoral regulation under some form of specialized agency like the FCC. Consideration of regulatory issues relating to communications markets can benefit from the presence of a specialized body of technologists and economists. Richard Posner’s conclusion that antitrust doctrine is supple enough to accommodate the new economy<sup>15</sup> was tempered by his concern that traditional antitrust institutions are not so supple.<sup>16</sup> Thus, one of his recommendations was the development of additional, specialized expertise in government.<sup>17</sup> In any event, and importantly, we anticipate that the substantive limitations imposed on FCC actions and the requirement for market-oriented economics-based analysis will ensure that the agency stays within the banks of a narrow stream of regulation. The significant limits on generic rulemaking actions and the preference for adjudication discussed below also should help constrain the agency’s natural regulatory impulse.

### **A Preference for Adjudication Over Rulemaking**

An important feature of our proposal for a new regulatory framework is that it contemplates that much more of the FCC’s regulatory activity would be carried out through adjudication than through *ex ante* rulemaking. An FTC-like antitrust model based upon an unfair competition standard, coupled with some strictures on generic rulemaking, presumes that the Commission generally will act through adjudication, addressing unfair competition problems on a case-by-case basis *ex post*. To prevent undue delay, there can be a time limit for deciding cases.

Primary reliance on adjudication means questions are presented to the Commission in a narrower, fact-based fashion. When the agency proceeds more often through focused adjudications, new competitors do not confront an extensive web of regulations that limits their entry. And the business options of existing market participants are not unnecessarily limited, or even inadvertently inhibited, by overly vague and overly broad generic regulatory prohibitions that may—or may not—permit or prohibit particular business activity. Thus, *ex post* adjudication is superior to the kind of overly broad, open-ended *ex ante* rulemaking proceedings that sometimes have lingered at the Commission for quite extended periods, often years. More narrowly focused case-by-case adjudication should also reduce log rolling opportunities and compromises and trade-offs that inherently tend to ratchet up regulation in expansive rulemakings in which many issues are put in play simultaneously.<sup>18</sup>

So, under the new regulatory framework, the FCC, like the FTC, would have the authority to entertain and remedy complaints, including the power to award significant damages in appropriate cases. Indeed, the lack of adequate *ex post* remedial authority may be another reason the current FCC has tended to rely so heavily in favor of detailed *ex ante* prescriptive rules and regulatory conditions.

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The FTC still retains rulemaking authority to define methods of unfair competition, and despite our preference for adjudication, we would continue to grant the FCC similar generic rulemaking authority. In light of the current increasingly competitive environment which shifts the presumption away from regulation, and the FCC's own not infrequent history of adopting overly broad and overly prescriptive regulations, we do, however, propose that new legislation impose additional limits on the Commission's existing rulemaking authority. The Commission would be authorized to make rules only when it finds by "clear and convincing evidence" that such rules are necessary. This higher evidentiary standard of proof directed to the Commission, which is not in the current statute, reinforces the preference for adjudication over rulemakings. It is also consistent with our desire to institutionalize more rigorous analysis into the agency's decisionmaking.

Additionally, under our proposal, before promulgating any regulation in a rulemaking proceeding, the commission would be required specifically to find that "marketplace competition is not sufficient adequately to protect consumer welfare" and that the injury to consumers is both "substantial" and "not avoidable by consumers themselves." Importantly, the Commission would also be directed to consider any effect that the rules themselves may have on competition.

Finally, the Commission's rulemaking authority would be further cabined by requiring the sunset of each rule five years after it is adopted. The Commission could renew a rule only if it makes an affirmative finding, after notice and comment proceedings, that current evidence makes a "clear and convincing" showing that the rule is necessary to protect consumers. This new sunset provision would help ensure that rules do not become stale in the face of changing technology and marketplace dynamics. In his seminal work on regulatory reform, Stephen Breyer called for the additional use of sunset provisions, but he worried that a legislature facing a sunset "may well simply reenact the old program automatically," without doing the serious work of considering its necessity.<sup>19</sup> Our proposal would avoid that possibility by providing that FCC rules become void unless the Commission, in a new proceeding based on current evidence, finds that the rules continue to be necessary to protect consumer welfare.

### **Reform the Merger Review Process**

Historically, dual review of mergers in communications markets by the FCC and the antitrust authorities has been the subject of substantial, powerful criticism.<sup>20</sup> Even though the FCC, in recent years may have assumed somewhat more the role of a follow-on reviewer, deferring more to the process undertaken by the antitrust authorities, the exercise by the commission of its "public interest" authority to approve license and authorization transfers nevertheless has meant that parties proposing mergers have been required to obtain approval in a separate regulatory proceeding in addition to the normal antitrust review. To a significant extent, the FCC has examined the same or similar competitive impact issues

as the ones examined by the Department of Justice or the Federal Trade Commission. With respect to the competitive impact assessment, this duplication of review has caused an unnecessary and wasteful expenditure of public and private resources. It also has created undue delays in the merger review process that are costly to the merger proponents.

Moreover, use of a regulatory standard as vague as the "public interest" standard is problematic in a merger review proceeding. In the past, the indeterminate nature of the standard has allowed the FCC, as part of the license transfer review process, great latitude to seek to impose conditions on the merger proponents entirely related to any competitive concerns uniquely posed by the transaction. Because the merger proponents cannot move forward to consummate the merger absent FCC approval of the license transfer, it is common for the parties to agree to "voluntary" conditions along the lines suggested by the agency's staff in off-the-record negotiations.

For example, when SBC merged with Ameritech in 1999, the companies eventually volunteered to abide by 30 separate regulatory conditions, not counting dozens more sub-conditions.<sup>21</sup> Most, such as a condition requiring the merged entity to build-out broadband networks in low-income areas, went far beyond existing statutory or regulatory requirements. However salutary from a policy perspective these requirements might have been if imposed on an industry-wide basis in a generic rulemaking proceeding, it is another matter entirely to impose them in the context of a merger review.<sup>22</sup>

By cabining substantially the FCC's authority over mergers, our proposed new regulatory framework would address both the unnecessarily wasteful duplication of resources by two government agencies and the often-unseemly practice of "regulation by condition." Review of potential impacts on marketplace competition under the Hart-Scott-Rodino Act would continue, with the Department of Justice or the Federal Trade Commission taking the lead. But the FCC's authority to review license or authorization transfers would be limited to ensuring that the transfer does not create any violation of the Communications Act or an FCC rule. Under this proposal, the FCC no longer would duplicate the competitive assessment review undertaken by the competition agencies charged with enforcing our antitrust laws, and it no longer would have authority to use the license transfer process to impose conditions that are not necessary to ensure compliance with the Communications Act or FCC regulations.

### **Conclusion**

In sum, in light of the rapid advent of marketplace competition and the reality of service convergence spurred by technological advances, it is time for Congress to enact a new Digital Age Communications Act. The existing regulatory regime that classifies various services based on technological constructs is sorely outdated. It leads to disparate regulation of services that are comparable from the consumers'

perspective and which compete against each other in the marketplace. In this article, we offer a new market-oriented, technology-neutral regulatory paradigm that is suitable for the digital age. The shift away from agency action primarily based on vague standards such as the “public interest” and “just and reasonable” rates to action primarily based on an antitrust-like standard that compels the agency to engage in rigorous economic analysis, and away from predominant reliance on broad generic rulemakings in favor of more narrowly-focused case-by-case adjudications will result in sounder, less heavy-handed regulation.

We understand that any shift to a new regulatory paradigm, especially a shift as significant as the one proposed here, will involve some transitional and timing issues that must be resolved and which are not addressed here. In some instances, it may not be feasible or advisable to “flash cut” legacy regulation. We also understand there are other issues not treated here, such as adjustments in the existing federal-state jurisdictional relationship and reform of the existing system of universal service support subsidies, which necessarily must be part of any effort to achieve comprehensive reform of communications law and policy.

Finally, we appreciate that there are various other pro-competitive models for a new regulatory framework that might be considered in addition to, or as a complement to, the one offered here. For example, some have suggested an “IP migration” model whereby new broadband services that use the Internet Protocol should be subjected to minimal regulation, while legacy narrowband services, such as traditional voice telephony, remain subject to a greater degree of regulation. Such proposals that attempt to restrict regulation to legacy services have considerable merit as well, although we are concerned that any framework that continues to rely on technological distinctions for classification purposes, for example, based on whether they are “IP-enabled,”<sup>23</sup> may become outdated rather quickly. In any event, in our view, the principal elements of the new regulatory framework we have proposed here should be a key part of any such reform effort. If these elements are adopted, we are confident that Congress will have taken an important step in maintaining our nation’s leadership in the communications and information technology industries.

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Weisman. The article draws heavily on the Working Group’s paper, and the contributions of the members of the group to the paper are gratefully acknowledged. The views contained in this version should be attributed only to the authors.

## Footnotes

<sup>1</sup> We do not use “long-predicted” lightly. For example, more than twenty years ago, Ithiel de Sola Pool, in his much discussed book, *Technologies of Freedom*, declared: “For the first three-quarters of the twentieth century the major means of communications were neatly partitioned from each other, both by technology and use. Now the picture is changing. Many of the neat separations between the different media no longer hold... The explanation for the current convergence between historically separated modes of communication lies in the habitability of digital electronics.” ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 26-27 (1983).

<sup>2</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996)(codified at various sections of 47 U.S.C.)(hereinafter sometimes referred to as “1996 Act” or the “Telecom Act of 1996”).

<sup>3</sup> See James B. Speta, *Deregulating Telecommunications in Internet Time*, 61 WASH. & LEE L. REV. 1, 27-33 (2004).

<sup>4</sup> See Randolph J. May, *Calling for Regulatory Overhaul, Bit by Bit*, CNETNews.com (Oct. 19, 2004), available at [http://news.com.com/Calling+for+a+regulatory+overhaul%2C+bit+by+bit/2010-1028\\_3-5415778.html](http://news.com.com/Calling+for+a+regulatory+overhaul%2C+bit+by+bit/2010-1028_3-5415778.html). (“What we need is a new market-oriented model, not a replacement based on another set of techno-functional definitions.”).

<sup>5</sup> 47 U.S.C. § 153 (48).

<sup>6</sup> 47 U.S.C. § 153 (41).

<sup>7</sup> See Randolph J. May, *The Metaphysics of VoIP*, CNET NEWS.COM (Jan. 5, 2004), available at [http://news.com.com/The+metaphysics+of+VoIP/2010-7352\\_3-5134896.html](http://news.com.com/The+metaphysics+of+VoIP/2010-7352_3-5134896.html).

<sup>8</sup> See National Cable & Telecommunications Ass’n v. Brand X Internet Services, 125 S. Ct. 2688 (2005) (The FCC recently has taken steps to reclassify the telephone companies’ broadband services as “information services,” apparently putting them on a regulatory par with cable broadband services.) See Press Release, FCC, FCC Eliminates Mandated Sharing Requirement on Incumbents’ Wireline Broadband Internet Access Services (August 5, 2005).

<sup>9</sup> See James B. Speta, *A Common Carrier Approach to Internet Interconnection*, 54 FED. COMM. L.J. 225 (2005).

<sup>10</sup> 47 U.S.C. § 151.

<sup>11</sup> See, for example, S. 1504, “Broadband Investment and Consumer Choice Act,” introduced July 27, 2005.

<sup>12</sup> We note again here, as we do above, that we are drawing heavily upon the work of The Progress and Freedom Foundation’s Regulatory Framework Working Group, which we co-chaired. The group full report is available at <http://www.pff.org/issues-pubs/other/050617regframework.pdf>.

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<sup>13</sup> STEPHEN BREYER, REGULATION AND DEREGULATION IN THE UNITED STATES: AIRLINES, TELECOMMUNICATIONS AND ANTITRUST, DEREGULATION OR RE-REGULATION 45 (Giandomenico Majone ed., 1990).

<sup>14</sup> 540 U.S. 398, 415 (2004). For a discussion of the problem of antitrust courts setting access or interconnection prices, *see generally* Philip J. Weiser, *Goldwasser, The Telecom Act, and Reflections on Antitrust Remedies*, 55 ADMIN. L.J. 1519 (2003); James B. Speta, *Antitrust and Local Competition under the Telecommunications Act*, 71 ANTITRUST L.J. 99 (2003).

<sup>15</sup> Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L.J. 925, 925 (2001).

<sup>16</sup> *Id.* at 925 (“The real problem lies on the institutional side: the enforcement agencies and the courts do not have adequate technical resources, and do not move fast enough, to cope effectively with a very complex business sector that changes very rapidly.”).

<sup>17</sup> *Id.* at 940 (The Antitrust Division and the FTC should hire more computer scientists and engineers to better understand new economy antitrust problems).

<sup>18</sup> *See* Randolph J. May, *New Rules for New Tech*, LEGAL TIMES, March 29, 2004, at 70.

<sup>19</sup> STEPHEN BREYER, REGULATION AND ITS REFORM 365 (1982).

<sup>20</sup> *See generally* Donald J. Russell & Sherri Lynn Wolson, *Dual Antitrust Review of Telecommunications Mergers by the Department of Justice and the Federal Communications Commission*, 11 GEO. MASON L. REV. 143 (2002); Rachel E. Barkow & Peter W. Huber, *A Tale of Two Agencies: A Comparative Analysis of FCC and DOJ Review of Telecommunications Mergers*, 2000 U. CHI. L. FORUM 29.

<sup>21</sup> Applications of Ameritech Corp. and SBC Comm. Inc. for Consent to Transfer Licenses and Lines, *Memorandum Opinion and Order*, 14 F.C.C.R. 14,712 (1999).

<sup>22</sup> *See* Randolph J. May, *Telecom Merger Review-Reform the Process*, NATIONAL LAW JOURNAL, May 30, 2005, at 27.

<sup>23</sup> For a discussion of IP-enabled services, *see generally* Review of Regulatory Requirements for IP-Enabled Services, Notice of Proposed Rulemaking, 69 Fed. Reg. 16,193 (2004). The FCC said IP-enabled services “include, but are not limited to, voice over IP (VoIP) services, other communications capabilities utilizing the Internet Protocol, software-based applications that facilitate use of those services, and future services using IP expected to emerge in the market.” *Id.*