January 2002

Wither Convergence: Legal, Regulatory, and Trade Opportunism in Telecommunications

Rob Frieden

Follow this and additional works at: <http://digitalcommons.law.scu.edu/chtlj>

Part of the [Law Commons](#)

Recommended Citation

Rob Frieden, *Wither Convergence: Legal, Regulatory, and Trade Opportunism in Telecommunications*, 18 SANTA CLARA HIGH TECH. L.J. 171 (2001).

Available at: <http://digitalcommons.law.scu.edu/chtlj/vol18/iss2/1>

This Article is brought to you for free and open access by the Journals at Santa Clara Law Digital Commons. It has been accepted for inclusion in Santa Clara High Technology Law Journal by an authorized administrator of Santa Clara Law Digital Commons. For more information, please contact sculawlibrarian@gmail.com.

ARTICLES

WITHER CONVERGENCE: LEGAL, REGULATORY, AND TRADE OPPORTUNISM IN TELECOMMUNICATIONS

Rob Frieden†

Technological and marketplace convergence supports the development of an integrated information communications and entertainment ("ICE") marketplace.¹ Yet for various ICE market segments to function without trade barriers and competitive distortions, the involved legal, regulatory, and trade policy regimes must adapt to changed circumstances. Of key importance is the need to assess whether to change basic definitions and assumptions that worked in a pre-convergent environment, but which provide opportunities for regulatory arbitrage, such as opportunities to tilt the competitive playing field to one's advantage by exploiting differences in classifications and qualifying for a status with less regulatory obligations and comparatively fewer market access opportunities for competitors.

---

† Professor, Penn State University, 105-C Carnegie Building, University Park, Pennsylvania 16802; (814) 863-7996; e-mail: rmf5@psu.edu.

1. The ICE marketplace also includes goods and services fitting within the broad classification of intellectual property and electronic commerce. For an assessment whether and how trade policy forums can handle intellectual property rights issues see Frederick M. Abbott, *The Future of the Multilateral Trading System in the Context of TRIPS*, 20 HASTINGS INT'L & COMP. L. REV. 661 (1997); Frederick M. Abbott, *TRIPS in Seattle: The Not-So-Surprising Failure and the Future of the TRIPS Agenda*, 18 BERKELEY J. INT'L L. 165 (2000); John H. Barton, *The Economics of TRIPS: International Trade in Information-Intensive Products*, 33 GEO. WASH. INT'L L. REV. 473 (2001). For an assessment whether and how trade policy forums can handle e-commerce issues see Stewart A. Baker et al., *E-Products and the WTO*, 35 INT'L LAW. 5 (2001). See also WORLD TRADE ORGANIZATION, THE GENEVA MINISTERIAL DECLARATION ON GLOBAL ELECTRONIC COMMERCE, WT/MIN(98)/DEC/2 (adopted May 20, 1998), http://www.wto.org/english/tratop_e/ecom_e/mindecl_e.htm; LUDGER SCHUKNECHT & ROSA PÉREZ-ESTEVE, WORLD TRADE ORGANIZATION, A QUANTITATIVE ASSESSMENT OF ELECTRONIC COMMERCE, at http://www.wto.org/english/res_e/reser_e/ae9901_e.htm (Sept. 1999).

Many workable, semantic dichotomies break down in the convergent ICE environment, because technological innovations promote greater service flexibility and markets become more penetrable absent countervailing regulations and trade policies. For example, ventures operating in a digital environment can easily bridge preexisting legal and regulatory distinctions between content creator and conduit. Similarly, many types of Internet ventures use digitization to eliminate preexisting regulatory dichotomies between basic and value-added services, and between different trade policies and market access commitments made for goods versus services.

Convergence challenges many baseline assumptions about ICE made by legislators, regulators, jurists, and trade policy makers. Information services typically qualify for little, if any, regulatory oversight based on assumptions that they enhance and add value to regulated basic telecommunications. What happens, though, to this assumption when an unregulated Internet venture provides services that are functionally equivalent to what often heavily regulated telecommunications common carriers provide? Heretofore, communications ventures fit into a convenient regulatory dichotomy based on whether they create and disseminate content; for example, whether they engage in broadcasting, or operate as neutral, transparent conduits for the content created by others, such as telecommunications service providers like common carrier telephone companies. In the preconvergent environment, creators of entertainment could largely avoid regulation and concentrate on the creative and business process. As a result of marketplace convergence opportunities, content creators have turned into content disseminators like broadcasters, cable television operators, Internet Service Providers, and satellite operators.

Efforts to liberalize and deregulate telecommunications have generated less success and more harm than anticipated. This is primarily because technological and market convergence raise new issues, and old issues do not simply evaporate through the remedy of competition. The legal, regulatory, and trade policymaking apparatus has not kept pace with ICE convergence. As a result, plenty of opportunities exist for causing delay, exploiting uncertainty, and using superior skill in gaming and brinkmanship to thwart competition or to tilt the competitive playing field to one's advantage. Stakeholders have primarily resorted to competing in courtrooms rather than in the marketplace, an outcome all the more frustrating because most of the litigants also helped write the legislation and negotiate the compromises necessary to enact laws and trade policies.

Recent deregulatory and market access initiatives have not achieved "an equilibrium among all parties: regulators, legislators, operators and consumers."²

Depending on one's perspective, clever and unanticipated outcomes either help blunt the adverse and meddlesome impact of poorly drafted legislation and trade policies, or forestall the full achievement of essential public policy objectives. With great opportunities to delay, litigate, or dispute the meaning of legislation and trade opportunities, stakeholders can exploit the nature and scope of the new and revamped regulatory regime that was designed to foster competition.³ Asymmetries in regulatory burdens create incentives for stakeholders, such as carriers and content providers, to find ways to exploit artificial competitive advantages and to avoid regulatory classifications that create a bias toward more pervasive and costly regulatory burdens.⁴ Asymmetrical regulation has the potential to tilt the competitive playing field in favor of one category of stakeholder over others.⁵

---

2. Michela Cimattoribus et al., *Impacts of the 1996 Telecommunications Act on the U.S. Model of Telecommunications Policy*, 22 TELECOMM. POL'Y 493, 509 (1998).

3. With a rather high frequency, appellate courts have rejected the FCC's interpretation of a legislative mandate, or a Commission unilateral rulemaking initiative. For example, on several occasions, the FCC unsuccessfully attempted to mandate the elimination of a statutorily imposed tariff filing requirement:

Commission efforts to move to a nontariff environment for interexchange carriers—insofar as those carriers do not exercise market power—have not had an easy time with this court and the Supreme Court. For over six decades a tariff regime was mandated by the Communications Act of 1934, which requires the FCC to review telecommunications carriers' tariffs to ensure their reasonableness. The Act requires carriers to file their tariffs with the FCC, and they are prohibited from charging consumers except as provided in the tariffs. Starting in the early 1980s, the Commission tried to prohibit tariff-filing by nondominant carriers—in essence, those other than AT&T—but that effort was successfully challenged in this court in *MCI Telecommunications Corp. v. FCC* where we struck down "mandatory detariffing" as inconsistent with the 1934 Act.

MCI WorldCom, Inc. v. FCC, 209 F.3d 760, 761–62 (D.C. Cir. 2000) (citations omitted).

4. Mark Schankerman, *Symmetric Regulation for Competitive Telecommunications*, 8 INFO. ECON. & POL'Y 1 (1996). ("[A]ll forms of asymmetric regulation contain an intrinsic bias toward some firms or technologies . . ."). *Id.* at 6.

5. Prof. Dr. Günter Knieps, *Interconnection and Network Access*, 23 FORDHAM INT'L L.J. S90, S99 (2000).

There is a wide range of possible asymmetric regulation. Whereas, in the past, legal entry barriers protected monopolistic carriers, the regulatory pendulum now seems to swing in the opposite direction. Asymmetric regulation in favor of newcomers is motivated by the conviction that, even after the abolishment of the legal monopoly, the incumbent carrier would still possess a factual monopoly position on the network infrastructure and the normal voice telephone service.

Likewise, ambiguities in trade policy jeopardize mutually beneficial market access initiatives. The trade policy making apparatus offers similar gaming and brinkmanship opportunities as some stakeholders seek to shoehorn new services into definitions and classifications that impose less burdensome market access commitments, or qualify for exemptions from otherwise applicable requirements. For example, most nations have made far greater market access commitments for telecommunications than for audiovisual services. More fundamentally, market access commitments appear more robust and straightforward for goods than for services. Concerns about preserving national culture and sovereignty have prompted nations to shield and nurture indigenous audiovisual content ventures.⁶

Does ICE convergence allow concerns, expressed in trade policy forums about foreign cinema market penetration and "cultural imperialism,"⁷ to support restricted market access for Internet-mediated audio and video services, like that provided through real time "streaming" delivery of digital packets? Do cultural exceptions, applicable to broadcasting and satellite-delivered programming,

---

Therefore, initial support of newcomers, at least for a sufficient transition period, has been recommended recently in the national regulatory debates . . . .

Id.

6. Lyombe Eko, *Many Spiders, One Worldwide Web: Towards a Typology of Internet Regulation*, 6 COMM. L. & POL'Y 445, 466-67 (2001) (citing UNESCO, 5th Annual Conference on Adult Education, at <http://www.unesco.org/opi/eng/confintea/> (last visited Mar. 24, 2002)).

Indeed, the American-dominated governance and perceived over-commercialization of the Internet have rekindled old, international ideological debates. The UNESCO has said that lack of access to the Internet by the poor countries of the world is unfair, and use of the Internet by the rich countries to transfer their values, languages and cultural norms to these poor countries raises anew issues of "cultural imperialism."

Id. "Cultural imperialism is the purposive cultural domination, especially through the mass media and popular culture, of a country or region by another country or region. European nations, particularly France, have leveled this accusation against the United States since the early part of the 20th century." *Id.* at n.125 (citing ROBERT KUISEL, *SEDUCING THE FRENCH: THE DILEMMA OF AMERICANIZATION* (1993); REINHOLD WAGNLEITNER, *COCA-COLONIZATION AND THE COLD WAR* (1994); THOMAS MCPHAIL, *ELECTRONIC COLONIALISM* (1987)).

7. See Thomas M. Murray, *The U.S.-French Dispute Over GATT Treatment of Audiovisual Products and the Limits of Public Choice Theory: How An Efficient Market Solution Was "Rent-Seeking,"* 21 MD. J. INT'L L. & TRADE 203 (1997); W. Ming Shao, *Is There No Business Like Show Business? Free Trade and Cultural Protectionism*, 20 YALE J. INT'L L. 105, 129 (1995); Robin L. Van Harpen, *Mamas, Don't Let Your Babies Grow up to be Cowboys: Reconciling Trade and Cultural Independence*, 4 MINN. J. GLOBAL TRADE 165 (1995). But cf. C. Edwin Baker, *An Economic Critique of Free Trade in Media Product*, 78 N.C. L. REV. 1357 (2000) (challenging economic justifications for free trade in audiovisual products).

extend to Internet ventures providing functionally equivalent services? Similar issues arise in telecommunications policy and regulatory forums where decision makers have established bright line distinctions between regulated telecommunications and unregulated enhancement of leased services, or the creation of content transported by carriers.

This article will examine a number of semantic telecommunications and trade classifications with an eye toward determining whether technological convergence and regulatory opportunism defeat the possibility of establishing a multiple track regime that distinguishes between basic and enhanced services in telecommunications and between telecommunications and audiovisual services. Additionally the article scrutinizes marketplace anomalies created by Internet-based services that do not readily fit into any existing classification. For example, Internet-mediated "streaming" of visual and audio content has characteristics akin to broadcasting, but it also qualifies for a largely unregulated status because the service involves packet switched, value-added data communications. Other innovations, like Internet telephony, possibly fit into more than one classification. Some technological applications erode preexisting rules and policies like the international accounting rate division of long distance toll revenues.

The marketplace attractiveness of some new services results, in part, from trade and regulatory classifications that can accord arbitrage opportunities by blocking market access, or by avoiding costly regulatory burdens. The article concludes with suggestions on how legislators, regulators, and trade policy makers might curb regulatory opportunism by abandoning the strategy of classifying carriers and services based on static technological or market share assumptions.

I. SEMANTIC GAME PLAYING

Over the years, incumbents and newcomers alike have gamed the regulatory process to secure a competitive advantage in terms of reduced regulation or cost savings. Deregulatory initiatives in the United States replace one regulatory regime with another.⁸ With

---

8. Viktor Mayer-Schönberger & Mathias Strasser, *A Closer Look at Telecom Deregulation: The European Advantage*, 12 HARV. J. L. & TECH. 561, 565 (1999) ("In essence, legislatures liberalize an economic sector by 're-regulating' rather than deregulating it."). *Id.*

skillful maneuvering, both incumbents and market entrants can provide unregulated services functionally equivalent to what a substantially regulated carrier offers. Other strategies involve securing a classification that exempts the operator from more burdensome regulatory duties, or qualifies the operator to tap into cost savings or cost avoidance opportunities.

Currently, Internet Service Providers ("ISPs") in the United States can qualify for reciprocal interconnection payments from local exchange carriers without having to generate a return flow of traffic.⁹ ISPs also can offer Internet-mediated long distance telephone services free of both interconnection charges and the duty to make universal service contributions, obligations that are borne by competitors.¹⁰ Cable television service providers can leverage their non-common carrier status to avoid having to provide open access to new Internet access services, despite the fact that they compete with telephone companies whose legacy of common carrier regulation extends to such services.¹¹

Other longer-standing tactics include selecting a favorable jurisdiction (federal instead of state), legal classification (private

9. Rebecca Beynon, *The FCC's Implementation of the 1996 Act: Agency Litigation Strategies and Delay*, 53 FED. COMM. L.J. 27, 39 (2000).

Each time a customer places a call to the ISP, the incumbent carrier winds up paying the competing carrier a per-minute termination fee. Consider also the nature of ISP traffic. First, such traffic is typically "one-way." That is, many customers call an ISP in order to connect to the Internet, but an ISP seldom places calls to other customers. Second, calls made to ISPs are typically much longer than the average voice call, since people often surf the Internet for hours at a time. The potential for regulatory arbitrage is obvious—a competing carrier that signs up an ISP as a customer stands to collect far more in reciprocal compensation fees than it will pay out in connection with serving that customer.

Id.

10. See Seventh Report and Order and Thirteenth Order on Reconsideration and Further Notice of Proposed Rulemaking, 14 F.C.C.R. 8078 (1999). See also, Robert M. Frieden, *Universal Service: When Technologies Converge and Regulatory Models Diverge*, 13 HARVARD J.L. & TECH. 395 (2000); Seth A. Cohen, *Deregulation, Defragmenting & Interconnecting: Reconsidering Commercial Telecommunications Regulation in Relation to the Rise of Internet Telephony*, 18 J.L. & COM. 133 (1998); Katherine Collins, *International Accounting Rate Reform: The Role of International Organizations and Implications For Developing Countries*, 31 LAW & POL'Y INT'L BUS. 1077 (2000); Henry E. Crawford, *Internet Calling: FCC Jurisdiction Over Internet Telephony*, 5 COMM. L. CONCEPTS 43 (1997); Hank Intven et al., *Internet Telephony—the Regulatory Issues*, 21 HASTINGS COMM. & ENT. L.J. 1 (1998); Dennis W. Moore Jr., *Regulation of the Internet and Internet Telephony Through the Imposition of Access Charges*, 76 TEX. L. REV. 183 (1997); Jamie N. Nafziger, *Time To Pay Up: Internet Service Providers' Universal Service Obligations Under the Telecommunications Act of 1996*, 16 J. MARSHALL J. COMPUTER & INFO. L. 37 (1997).

11. See AT&T Corp. v. City of Portland, 43 F. Supp. 2d 1146 (D. Or. 1999), *rev'd*, 216 F.3d 871 (9th Cir. 2000).

carrier instead of common carrier)¹² and cash flow status (reseller instead of facilities-based carrier). With skillful maneuvering, both incumbents and market entrants can provide unregulated services functionally equivalent to what a substantially regulated carrier offers. This involves securing a classification that exempts the operator from more burdensome regulatory duties or qualifies the operator to tap into cost savings or cost avoidance opportunities.

II. A LAW OF UNINTENDED CONSEQUENCES: THE U.S. TELECOMMUNICATIONS ACT OF 1996

The authors of the Telecommunications Act of 1996¹³ (the "1996 Act") had great expectations¹⁴ that they could engineer competition and enhance consumer welfare simply by rewriting a law to remove regulatory barriers to competition.¹⁵ Congress assumed that it could

12. James H. Lister, *The Rights of Common Carriers and the Decision Whether to Be a Common Carrier or a Non-Regulated Communications Provider*, 53 FED. COMM. L.J. 91, 92-96 (2000).

13. Telecommunications Act of 1996, 47 U.S.C. §151 *et seq.* (2001).

14. Monroe E. Price & John F. Duffy, *Technological Change and Doctrinal Persistence: Telecommunications Reform in Congress and the Court*, 97 COLUM. L. REV. 976, 983 (1997).

In the floor discussions of the new legislation, it was commonplace to hear that a vision of "the convergence of these technologies" lay at "the heart of this reform effort," [citing 142 CONG. REC. H1161 (daily ed. Feb. 1, 1996) (statement of Rep. Oxley)] that it was about time for Congress to update the law to catch up with the new convergence in video, computer and telephone technologies, [citing 141 CONG. REC. S8464 (daily ed. June 15, 1995) (statement of Sen. Leahy)] and that the bill would "allow the cable, telephone, computer, broadcasting, and other telecommunications industries more easily to converge and transform themselves" [citing 141 CONG. REC. S8477 (daily ed. June 15, 1995) (statement of Sen. Pressler)]. Digitalization, among other things, had rendered modes of transmitting information interchangeable; as a result, many in Congress believed that historic divisions, artificially supported by legislative distinctions and federal and state bureaucratic arrangements, needed to be dissolved.

Id. See also Joint Explanatory Statement of the Committee of Conference, H.R. CONF. REP. NO. 104-458 (1996), reprinted in 1996 U.S.C.A.N. 124.

15. For background on the Telecommunications Act of 1996, see Robert M. Frieden, *The Telecommunications Act of 1996: Predicting the Winners and Losers*, 20 HASTINGS COMM. & ENT. L. J. 11 (1997). See also Aimee M. Adler, *Competition in Telephony: Perception or Reality? Current Barriers to The Telecommunications Act of 1996*, 7 J. L. & POL'Y 571 (1998); Michael Glover & Donna Epps, *Is The Telecommunications Act of 1996 Working?* 52 ADMIN. L. REV. 1013 (2000); Thomas G. Krattenmaker, *The Telecommunications Act of 1996*, 29 CONN. L. REV. 123, 127 (1996); Michael I. Meyerson, *Ideas of the Marketplace: A Guide to the 1996 Telecommunications Act*, 49 FED. COMM. L.J. 251 (1997); John C. Roberts, *The Sources of Statutory Meaning: An Archaeological Case Study of the 1996 Telecommunications Act*, 53 SMU L. REV. 143 (2000).

craft legislation that created complementary incentives.¹⁶ In exchange for cooperating with competitors, incumbents could serve new markets, while market entrants could provide consumers with the benefits of competition by erecting new networks, but also by reselling the services of incumbent carriers. For incumbent Bell Operating Companies, the law links access to long distance markets with affirmative steps to open their networks to new local exchange service competitors.¹⁷ The drafters of the law also sought to motivate competitive local exchange carriers ("CLECs") to construct facilities that would stimulate demand with lower prices and new options rather than continuing to rely on initial reselling opportunities using the services of incumbent local exchange carriers ("ILECs").¹⁸ The law

---

16. Price, *supra* note 14, at 982. ("There was a headiness to the rhetoric, a sense that a legislative revolution would assist, and perhaps even underwrite, a technological and organizational revolution in which past media categories would be swept away and a new era of national achievement and citizen and consumer empowerment would be achieved."). *Id.*

17. See generally 47 U.S.C. § 153 (2001) (LATA is an acronym for Local Access and Transport Area, a geographical region created in the AT&T divestiture case within which the spun-off Bell Operating Companies ("BOCs") can provide local and toll services.). See also Bell Operating Company Entry Into InterLATA Services. *Id.* § 271 (This section contains a fourteen-point checklist to which BOCs must adhere before being allowed into the interLATA long distance telephone service markets. See *id.* § 153. The 14 point competitive checklist requires the Bell Operating Companies to provide: 1) full and fair interconnection with competitive local exchange carriers in accordance with the requirements of sections 251(c)(2) and 252(d)(1); 2) nondiscriminatory and "à la carte" access to network elements in accordance with the requirements of sections 251(c)(3) and 252(d)(1); 3) nondiscriminatory access to the poles, ducts, conduits, and rights-of-way owned or controlled by the Bell Operating Company at just and reasonable rates in accordance with the requirements of section 224; 4) local loop transmission from the central office to a customer's premises, unbundled from local switching or other services; 5) local transport from the trunk side of a wire line local exchange carrier's switch unbundled from switching or other services; 6) local switching unbundled from transport, local loop transmission, or other services; 7) nondiscriminatory access to 911 emergency services, directory assistance services to allow the other carriers' customers to obtain telephone numbers and operator call completion services; 8) white pages directory listings for customers of other carriers' telephone exchange services; 9) nondiscriminatory access to telephone numbers for assignment to the other carriers' telephone exchange service customers, nondiscriminatory access to databases and associated signaling necessary for call routing and completion; 10) nondiscriminatory access to databases and associated signaling necessary for call routing and completion; 11) number portability, i.e., the ability of a former BOC customer to retain use of a preexisting telephone number after having subscribed to telephone service from another carrier; 12) nondiscriminatory access to such services or information as are necessary to allow requesting carriers to implement local dialing parity in accordance with the requirements of section 251(b)(3), i.e., the same number of digits dialed for either BOC or alternative service; 13) reciprocal compensation. *Id.* § 271(c)(2)(B)).

18. Alexandra M. Wilson, *Harmonizing Regulation by Promoting Facilities-Based Competition*, 8 GEO. MASON L. REV. 729, 730 (2000) ("Because the 1996 Act alone will not solve the regulatory convergence problem, the dilemma policymakers face is how to change the current system to alleviate the detrimental effects of asymmetrical regulation, and how to avoid the reflexive application of shopworn regulatory antecedents."). *Id.*

has not stimulated substantial competition in local telecommunication services because Congress underestimated the ability of stakeholders to maintain or create a competitive advantage by thwarting progress through litigation,¹⁹ and through the exploitation of ambiguous statutory language.²⁰

Technological innovations and market convergence in telecommunications require commensurate adjustments in the legal and regulatory arena, particularly when ventures can now provide functionally equivalent services yet face different regulatory treatment. Legislative changes to the *status quo* are infrequent,²¹ while "regulatory lag"²² becomes a more common occurrence. A significant period of time may run before regulations reflect changes in technological and marketplace circumstances.²³ During such periods of delayed adjustment, the regulatory process may favor one competitor over others. This happens particularly when marketplace conditions trigger new competitive opportunities and technological convergence eliminates barriers to market entry or market segmentation. A current example is the different regulatory treatment of an ILEC providing Internet access provided via conditioned telephone lines, commonly known as a Digital Subscriber Link ("DSL") service versus the regulatory treatment of a cable television company provided Internet access. The former currently triggers conventional common carrier regulation while the latter qualifies for unregulated private carrier status.²⁴

---

19. See generally Beynon, *supra* note 9.

20. See generally Kathleen Wallman, *A Birthday Party: The Terrible or Terrific Two's?* 1996 *Federal Telecommunications Act*, 51 FED. COMM. L.J. 229 (1998).

21. Roberts, *supra* note 15, at 146 ("Congress repeatedly ignored or rebuffed calls by the FCC and critics to amend and update the 1934 Act to provide guidance on emerging issues and technologies."). *Id.*

22. Robert W. Crandall & J. Gregory Sidak, *Competition and Regulatory Policies for Interactive Broadband Networks*, 68 S. CAL. L. REV. 1203, 1221 (1995) (defining regulatory lag as "the general delay in the responses of regulators to changes in cost or market conditions.").

23. James Alleman et al., *Universal Service: The Poverty of Policy*, 71 U. COLO. L. REV. 849 (2000) ("For the transition to competition to succeed, asymmetric measures to control market power should be phased out as the incumbent's market power diminishes."). *Id.* at 850.

24. The FCC acknowledges this regulatory asymmetry and seeks to establish a consistent and uniform regulatory platform. See Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Notice of Inquiry, 15 F.C.C.R. 19,287 (2000); Review of Regulatory Requirements for Incumbent LEC Broadband Services, Notice of Proposed Rulemaking, 16 F.C.C.R. 22,745 (2001); Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability, Notice of Proposed Rulemaking, 16 F.C.C.R. 22,781 (2001). See also, Appropriate Framework For Broadband Access to the Internet Over Wireline Facilities, Universal Service Obligations of

Comparatively lighter regulation of market entrants may properly incubate and promote incipient competition. On the other hand, however, without recalibration, a regulatory dichotomy may distort markets and handicap incumbents who deserve similar deregulation or streamlined government oversight.²⁵

The authors of the 1996 Act thought they had rebalanced the telecommunications regulatory regime to promote more robust competition without unduly favoring entrants with preferential treatment or unfairly allowing incumbents to exploit their market power in using anticompetitive practices. To the apparent dismay of Congress, telecommunication and information service providers have proven themselves quite adept at exploiting opportunities to capture greater profits and market share by tilting the competitive playing field to their advantage.²⁶ While designed to achieve market access parity, the 1996 Act, like so many laws and implementing regulations before it, has become a vehicle for clever interpretation, exploitation, and litigation.²⁷

For example, Congress thought that it could ensure market access parity through a one-size-fits-all regulatory classification, as demonstrated in legislation denoting common carriage status for all types of commercial service providers.²⁸ However, Congress also authorized the FCC to eliminate aspects of traditional common carrier responsibilities should the public interest support it.²⁹ The new

---

Broadband Providers, Notice of Proposed Rulemaking, 17 F.C.C.R. 3019 (2002) (seeking to develop a single uniform and consistent regulatory regime that applies to different Internet access technologies and carriers and refrains from extending preexisting regulatory burdens).

25. Thomas M. Jorde et al., *Innovation, Investment, and Unbundling*, 17 YALE J. ON REG. 1, 32–33 (2000). Some critics of FCC policies requiring ILECs to share local distribution facilities allege that such

unbundling would be a classic case of asymmetric regulation: the CLEC would pursue the more profitable, unregulated service, while the ILEC would be left providing basic local service (in many cases, below cost). Innovation would be eroded by regulations that arbitrarily favored CLECs, without regard to the adverse effect of such asymmetric regulation on the welfare of consumers.

Id.

26. See generally Eli M. Noam, *The Future of Telecom, The Future of Telecommunications Regulation*, 50 HASTINGS L.J. 1473 (1999).

27. See generally Stanley M. Gorinson, *Deregulation in Telecommunications: Competition or Confusion?*, FED. LAW. MAR.–APR. 2000, at 24.

28. See 1996 Act, § 3(44), 47 U.S.C. §153(44) (2001) (deeming every telecommunications carrier a “common carrier under this [Act] only to the extent that it is engaged in providing telecommunications services.”). *Id.*

29. *Id.* § 160(a). The FCC “shall forbear from applying any regulation or any provision of [the Communications Act] . . . if enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations . . . are just and reasonable and

legislative mandate to undo common carrier responsibilities, like filing and complying with tariffs,³⁰ combine with previous FCC efforts selectively to streamline regulations, if not deregulate entirely.³¹ Collectively, these apparently procompetitive initiatives have expanded the dichotomy between the nature and scope of regulation applied to dominant, incumbent carriers *vis-à-vis* market entrants and other carriers that qualify for streamlined regulation or none at all. Additionally, these initiatives blur the distinction between traditionally regulated common carriers and their unregulated private carrier counterparts, because common carriers, subject to “legacy”

---

are not unjustly or unreasonably discriminatory,” enforcement is not necessary to protect consumers and forbearance is “consistent with the public interest.” *Id.* (enumerations omitted).

30. In *MCI Telecom. Corp. v. FCC*, 765 F.2d 1186 (D.C. Cir. 1985), the Circuit Court of Appeals for the District of Columbia struck down “mandatory detariffing” as inconsistent with the Communications Act of 1934. See also *Am. Tel. & Tel. Co. v. FCC*, 978 F.2d 727 (D.C. Cir. 1992), *aff’d sub nom.* *MCI Telecomm. Corp. v. Am. Tel. & Tel. Co.*, 512 U.S. 218 (1994) (ruling that the FCC could not suspend (permissively or mandatorily) the tariff filing obligations for interexchange carriers, whether they had market power or not). See also *MCI Worldcom, Inc. v. FCC*, 209 F.3d 760 (D.C. Cir. 2000).

31. See Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Notice of Inquiry and Proposed Rulemaking, 77 F.C.C.2d 308 (1979); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, First Report and Order, 85 F.C.C.2d 1 (1980); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Further Notice of Proposed Rulemaking, 84 F.C.C.2d 445 (1981); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Second Report and Order, 91 F.C.C.2d 59 (1982) (recon. denied) 93 F.C.C.2d 54 (1983); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Second Further Notice of Proposed Rulemaking, 47 Fed. Reg. 17,308 (Apr. 22, 1982); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Third Further Notice of Proposed Rulemaking, 48 Fed. Reg. 28,292 (June 21, 1983); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Third Report and Order, 48 Fed. Reg. 46,791 (Oct. 14, 1983); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Fourth Report and Order, 95 F.C.C.2d 554 (1983); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Fourth Further Notice of Proposed Rulemaking, 49 Fed. Reg. 11,856 (Mar. 28, 1984); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Fifth Report and Order, 98 F.C.C.2d 1191 (1984); Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Therefor, Sixth Report and Order 99 F.C.C.2d 1020 (1985), *rev’d and remanded sub nom.* *MCI Telecomm. Corp. v. FCC*, 765 F.2d 1186 (D.C. Cir. 1985); Competition in the Interstate Interexchange Marketplace, Report and Order, 6 F.C.C.R. 5880, 5881 ¶ 2 (1991); Competition in the Interstate Interexchange Marketplace, 7 F.C.C.R. 2677 (1992) (on recon.); Competition in the Interstate Interexchange Marketplace, 8 F.C.C.R. 2659 (1993) (on further recon.); Competition in the Interstate Interexchange Marketplace, Second Report and Order, 8 F.C.C.R. 3668 (1993); Competition in the Interstate Interexchange Marketplace, 10 F.C.C.R. 4562 (1995) (on further recon.) (reducing scope of AT&T’s dominant carrier status and allowing provision of service based on customized tariffs preceded by a contract for carriage); Competition in the Interstate Interexchange Marketplace, 10 F.C.C.R. 4421 (1995) (further recon. den.).

regulations, can offer unregulated services using the same technologies and equipment used to provide conventional services while market entrants can use similar technologies and equipment to provide unregulated services that provide an alternative to incumbent carriers' conventional services.³² Some telecommunications ventures have avoided these costly regulatory burdens simply on the grounds that they lack market power,³³ or because they have semantically crafted services so that they qualify for little or no regulatory oversight.

On the other hand, some incumbents have continued to incur such burdens despite changed circumstances and the 1996 Act requirement that all service providers, regardless of regulatory classification, should bear on a competitively neutral basis the obligation of making financial contributions to support universal access to basic telecommunications.³⁴ For example, ISPs and other ventures providing enhancements to leased lines do not pay local exchange carrier access charges. Additionally, they do not contribute to universal service funding even when providing services that, if provided by other carriers, would trigger such payments.³⁵

Both newcomers and subsidiaries of incumbents may secure regulatory exemptions on semantic grounds by characterizing and offering services in a way that qualifies for diminished regulation. Incumbents may exploit regulatory inertia that maintains regulatory safeguards and barriers to market entry based on persisting concepts of natural monopoly and a strained view that only one enterprise can achieve public policy objectives like effectively executing a universal

---

32. See Eli M. Noam, *Will Universal Service and Common Carriage Survive the Telecommunications Act of 1996?*, 97 COLUM. L. REV. 955 (1997).

33. The MIT Dictionary of Modern Economics defines market power as the "ability of a single, or group of buyer(s) or seller(s) to influence the price of the product or service in which it is trading. A perfectly competitive market in equilibrium ensures the complete absence of market power." THE MIT DICTIONARY OF MODERN ECONOMICS 268 (David W. Pearce ed., 4th ed. 1992).

34. 47 U.S.C. §254(d) (2001) ("Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."). See also *Id.* §254(h)(2)(A) ("Advanced services. The Commission shall establish competitively neutral rules-(A) to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries; . . .") See also *Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999) *cert. granted sub nom. GTE Serv. Corp. v. FCC*, 530 U.S. 1213 (2000).

35. Frieden, *supra* note 10, at 422-30.

service mission. Alternatively, incumbent carriers may create separate subsidiaries to qualify for unregulated or lightly regulated non-dominant, market entrant status.³⁶

III. TRADE FORUMS HAVE CREATED SIMILAR ARBITRAGE OPPORTUNITIES

Trade policies regulating telecommunications do not operate using technology neutral definitions and assumptions. Instead, definitions and classifications establish a vertical, top-down structure, perhaps, in part, because the trade policy-making apparatus that first applied solely to goods was subsequently retrofitted to apply to services. The supply chain for the manufacture, distribution, and retail sale of goods lends itself to a vertical model. Services, particularly ICE services operating in a convergent marketplace, support a horizontal analysis that considers functional equivalents regardless of supplier or technology.

The General Agreement of Tariffs and Trade (GATT)³⁷ provides greater specificity and clarity of market access commitments with less regard to specific types of goods. The General Agreement on Trade in Services³⁸ offers less global coverage, instead relying on industry specific annexes and the definitions contained in them. With a baseline goods versus service dichotomy, it likely becomes easier to derive additional dichotomies that help flesh out basic definitions. With this kind of construct, a trade policy-making system can separate content from conduit and thereby specify different levels of market access as between telecommunications and audiovisual services. Increasingly, nations have made market access commitments in telecommunications—both basic and value-added—even as few, if any, new initiatives apply to audiovisual services.

---

36. As part of its initial deregulatory thrust in the 1980's the FCC developed a regulatory dichotomy between dominant carriers, to be subject to conventional, but possibly streamlined regulation, and non-dominant carriers to be subject to regulatory forbearance based on the view that carriers lacking market power should not be burdened with regulations designed to curb the potential for dominant carriers to engage in anticompetitive practices. See Scott M. Schoenwald, *Regulating Competition in the Interexchange Telecommunications Market: The Dominant/Nondominant Carrier Approach and the Evolution of Forbearance*, 49 FED. COMM. L.J. 367 (1997).

37. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194, *amended by* General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, 33 I.L.M. 1154 (1994).

38. General Agreement on Trade in Services, Apr. 15, 1994, Annex 1B, 33 I.L.M. 1167 (1994).

Quite legitimate concerns about sovereignty and culture warrant greater caution in the audiovisual sector. However, ICE convergence provides new opportunities to expand and leverage these concerns so as to shelter new services that seamlessly blend telecommunications transport with content. Indeed the Internet offers an example of such convergence as one cannot easily distinguish and separate the content delivery function from the content alone. Accordingly, when market access initiatives are not forthcoming for Internet-mediated services, do concerns about sovereignty and culture forestall progress? Conversely, might ventures providing such services consider the lack of market access an arbitrage opportunity to extract greater financial rewards through lessened competition?

IV. REGULATORY ARBITRAGE

Regulatory arbitrage refers to the ability of stakeholders to exploit differences in legislative and regulatory classifications with an eye toward securing more favorable or less burdensome regulatory treatment that typically will accrue financial and competitive advantage.³⁹ Stakeholders in the United States have exploited loopholes to secure a competitive or financial windfall for several reasons. One reason is that the organic legislation mandating regulatory reform contained ambiguities and relied on the Federal Communications Commission (FCC) to determine the will of Congress and to implement the deregulatory process. Loopholes have also been exploited because courts reviewing the FCC's implementation of legislation only conditionally defer to the expert regulatory agency's expertise. Exploitation also occurs because shared jurisdiction between the states and the FCC generally conflict, particularly when initiatives shift opportunities to receive subsidies and duties to finance subsidies.

Evading a regulatory burden can translate into cost savings and greater nimbleness in a competitive environment. Sometimes avoiding a regulatory requirement means that the stakeholder can save money or even qualify for a flow of unexpected revenues. The arbitrage aspect of this brinkmanship involves the strategic targeting and qualifying to receive lax or favorable regulatory treatment while at the same time retaining the ability to offer functionally equivalent

---

39. See A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage*, in *BORDERS IN CYBERSPACE: INFORMATION POLICY AND THE GLOBAL INFORMATION INFRASTRUCTURE* 129 (Brian Kahin & Charles Nesson eds., 1997).

services that compete with offerings of other stakeholders subject to more burdensome, costly, and unfavorable regulatory treatment.

Over the years, a number of such regulatory anomalies and asymmetries have occurred. For example, the price, but not necessarily the cost, of a minute of telecommunication use has depended on such factors as the perceived value of the service;⁴⁰ which regulatory agency has jurisdiction over cost allocation and tariffing;⁴¹ whether the service is domestic or international;⁴² whether another carrier or end-user seeks facilities interconnection;⁴³ the type of carrier⁴⁴ or enterprise⁴⁵ providing service;⁴⁶ and the type of line or

---

40. Federal Communications Commission, FCC Releases Semiannual Study on Telephone Trends, *available at* 1991 FCC LEXIS 4305 (Aug. 7, 1991). Both the FCC and state regulatory commissions have allowed carriers to price some services on the perceived value consumers accrue. For example, some local exchange telephone service rates have increased when the number of accessible subscribers reaches a benchmark.

In most states, the Bell Operating Companies and larger independents charge higher rates in metropolitan areas than in rural areas—a pricing practice that dates back to the turn of the century and is traditionally justified in the belief that the value of the service provided is higher for subscribers with larger local calling areas.

Id. at *10.

41. Typically an intrastate long distance minute of use significantly exceeds the price of an interstate long distance minute of use. Ironically, an intrastate state call originated via a cellular telephone may be significantly cheaper than the corresponding rate for a call originated over wireline facilities. The rate differential results, in part, from ratemaking policies, which may include cross-subsidies to local exchange service, as opposed to actual cost of service differences.

42. International message telephone service substantially exceeds domestic rates on a per minute and mileage band basis, primarily because international carriers have negotiated toll revenue division agreements that have failed to drop commensurately with cost reductions. For a discussion of these international accounting rates see Rob Frieden, *International Toll Revenue Division: Tackling the Inequities and Inefficiencies*, 17 TELECOM. POL'Y 221 (1993); Robert M. Frieden, *Accounting Rates: The Business of International Telecommunications and the Incentive to Cheat*, 43 FED. COM. L.J. 111 (1991).

43. The Telecommunications Act of 1996 and preexisting FCC regulations differentiate the terms and conditions for interconnection between carriers as opposed to customer-carrier interconnection. The 1996 Act orders favorable and potentially zero-cost interconnection between certain types of carriers. For example, Section 251 requires all local exchange carriers "to establish reciprocal compensation arrangements for the transport and termination of telecommunications." 47 U.S.C. § 251(b)(5) (2001) End-users and interexchange ("long distance") carriers must pay higher access charges.

44. During a time when interexchange carrier competitors of AT&T received inferior access to the PSTN, the Commission authorized discounted access charges. However, the Commission never stated that the discounts were cost-based as opposed to a rough justice solution designed to reflect both inferior access and the Commission's desire that carriers like MCI acquire market share. See, e.g., Exchange Network Facilities for Interstate Access (ENFIA), Report and Order, 71 F.C.C.2d 440 (1979); Am. Tel. & Tel. Co. and the Bell System Operating Companies Tariff, 93 F.C.C.2d 739 (1983) (on recon.), *aff'd in part and remanded in part sub nom.* MCI Telecomm. Corp. v. FCC, 712 F.2d 517 (D.C. Cir. 1983). Currently, the

facility providing service⁴⁷ and whether the service can access the Public Switched Telephone Network ("PSTN").⁴⁸

FCC is considering whether wireless mobile service providers like cellular radio operators should have to compensate wireline local exchange carriers for terminating calls while such wireline carriers do not have to compensate the wireless operators for similar call terminations. See *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Notice of Proposed Rulemaking, 11 F.C.C.R. 5020 (1996) (proposing reciprocal termination between wireline and wireless carriers, including the possibility of an interim zero termination charge between carriers); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order, 11 F.C.C.R. 15,499 (1996), *aff'd in part and vacated in part sub nom. Competitive Telecomm. Ass'n v. FCC*, 117 F.3d 1068 (8th Cir. 1997), *aff'd in part and vacated in part sub nom. Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *aff'd in part, rev'd in part, and remanded sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Order on Reconsideration, 11 F.C.C.R. 13,042 (1996); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Second Order on Reconsideration, 11 F.C.C.R. 19,738 (1996); *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Third Order on Reconsideration and Further Notice of Proposed Rulemaking, 12 F.C.C.R. 12,460 (1997).

45. Captive long distance callers from hotel rooms, and callers not familiar with so called dial-around options for avoiding price gouging for pay phone service recognize the vast price differences for long distance telephone service.

46. Certain types of services have qualified for exemption from regulatory burdens that impose extra costs. For example, enhanced services qualify for non-common carrier status and its users are exempt from having to pay an access charge payment otherwise applicable to basic service subscribers. A 1987 FCC initiative to eliminate the exemption generated substantial opposition by users who claimed the Commission had proposed to impose a modem tax. Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, 2 F.C.C.R. 4305, 4305 (1987):

In 1983 we adopted a comprehensive "access charge" plan for the recovery by local exchange carriers (LECs) of the costs associated with the origination and termination of interstate calls. [citing MTS and WATS Market Structure, Memorandum Opinion and Order, 97 F.C.C.2d 682 (1983)] At that time, we concluded that the immediate application of this plan to certain providers of interstate services might unduly burden their operations and cause disruptions in provision of service to the public. Therefore, we granted temporary exemptions from payment of access charges to certain classes of exchange access users, including enhanced service providers.

Id. (proposing to impose access charges on enhanced service lines). Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, Order, 3 F.C.C.R. 2631 (1988) (terminated) (abandoning proposal on ground that despite the apparent discrimination in charges "[a] current state of change and uncertainty" besetting the enhanced services industry justified ongoing exemption from access charge payments). *Id.* Currently the FCC requires users of ISDN services to pay only one Subscriber Line Charge, an access payment, despite the fact that ISDN circuits can derive more than one voice-grade equivalent channel.

47. The FCC's access charge regime established a different pricing structure for switched and special access. The former includes regular dial up services and requires end users to pay a monthly flat-rated Subscriber Line Charge, currently \$3.50 for residential and small business

A. Jurisdictional Brinkmanship

A perennial candidate for regulatory arbitrage lies in securing favorable jurisdictional treatment. On a cost causation basis, traversing a state or international boundary should not make much difference. However, how regulators and carriers allocate costs, and to which services they attribute cost causation, can result in substantially different cost levels depending on whether telecommunications traffic stays within a state, crosses state borders, or leaves a nation. In contrast, intrastate traffic in the United States and elsewhere typically triggers higher retail rates than interstate traffic, even for routes of equal distance. Similarly international traffic may cost several times as much as domestic rates of equal mileage.

Given a significant gap between services, as a function of jurisdictional classification, arbitrage opportunities abound. Entrepreneurs have engaged in creative traffic routing to shoehorn services into a preferred jurisdiction. Traffic that originates in one location and terminates in another location within a single state nevertheless may traverse an adjacent state by design, simply to avoid intrastate ratemaking and the jurisdiction of a state public utility

---

users and \$6.00 for other business users. The latter includes leased, private line users, who certify that the line does not "leak" into the PSTN through the use, for example, of an on-premises switch like a Private Branch Exchange, that could couple the private line with trunks that access the PSTN provided by Local Exchange Carriers ostensibly for local switched services. See MTS and WATS Market Structure, Third Report and Order, 93 F.C.C.2d 241 (1983); MTS and WATS Market Structure, Order, 97 F.C.C.2d 682 (modified on recon.); MTS and WATS Market Structure, Order, 97 F.C.C.2d 834 (further modification on recon.), *partially aff'd and partially remanded sub nom. Nat'l Ass'n Regl. Util. Comm'rs v. FCC*, 737 F.2d 1095 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1227 (1985); MTS and WATS Market Structure, Order, 99 F.C.C.2d 708 (1984) (further modification); MTS and WATS Market Structure, Order, 100 F.C.C.2d 860 (1985) (further recon. den.); MTS and WATS Market Structure, Order, 102 F.C.C.2d 849 (1985). See also Investigation of Access and Divestiture Related Tariffs, Order, 101 F.C.C.2d 911(1985); Investigation of Access and Divestiture Related Tariffs, Petitions for Reconsideration and Clarification of Allocation Plan Orders, 102 F.C.C.2d 503 (1985) (recon. denied); Investigation of Access and Divestiture Related Tariffs, Order, 101 F.C.C.2d 935 (1985).

48. International private line services, which do not access the PSTN, are exempt from the accounting rate regime. Their per-minute costs are significantly lower than switched services. Undetected private line leakage has become commonplace making it possible for resellers to provide a service functionally equivalent to international message telephone service at a fraction of the cost. See Robert M. Frieden, *The Impact of Boomerang Boxes and Call-Back Services on the Accounting Rate Regime*, in PROCEEDINGS OF THE PACIFIC TELECOMMUNICATIONS COUNCIL EIGHTEENTH ANNUAL CONFERENCE 781 (Dan Wedemeyer & Richard Nickelson, eds., 1996).

commission.⁴⁹ Until Canadian long distance telephone rates dropped to U.S. levels, carriers would transit traffic through the U.S. and back into Canada, thereby qualifying the traffic for lower Canada-U.S. rates than the higher domestic charges. Similarly, callback operators import dial tone from nations with low international calling rates even for domestic calls. Arbitrageurs find and exploit price margins, whether created by regulation, such as intrastate versus interstate rates, or different competitive conditions such as high international calling versus lower calling rates.

Shared jurisdiction need not result in chaos. The European Union (EU) has achieved policy and regulatory harmonization among the several different nations making up the EU. The balance between centralized policy making and subsidiarity requires a "delicate balance between on the one hand, the necessity of general harmonization at the level of the EU and the desire for limited flexibility at the level of its Member States, and on the other hand, the legislative framework and the implementation of that legislation at a subordinate level."⁵⁰ Perhaps the EU generates a comparatively superior end product, because the EU Commission can provide greater specificity than the U.S. Congress while still deferring to individual national legislatures to customize the necessary legislation. Additionally, a more specific division of labor exists between the EU Commission, Council, and Parliament.⁵¹

---

49. The FCC and reviewing courts have rejected a "contamination theory" that if applied would subject a telecommunications service to intrastate jurisdiction if any portion of the service was offered solely within one state: "The 'contamination theory' contemplates that a service or facility used only partially for intrastate communication is not subject to Commission jurisdiction." *United States Dept. of Defense v. Gen. Tel. Co. of the Northwest*, 38 F.C.C.2d 803, 808 n.17 (1973). *But cf.* *Petition of the New York Tel. Co. for a Declaratory Ruling with Respect to the Physically Intrastate Private Line and Special Access Channels Utilized for Sales Agents to Computer New York State Lottery Communications*, 5 F.C.C.R. 1080 (1990) (stating that the addition of two physically interstate private lines to a lottery network that is otherwise comprised of physically intrastate lines does not require the local exchange carrier providing the service to classify all of the lottery's special access lines as interstate). *See also* *Chesapeake & Potomac Tel. Co.*, 2 F.C.C.R. 3528 (1985); *Chesapeake & Potomac Tel. Co.*, Order, 3 F.C.C.R. 748 (modified on recon.), *vacated as moot sub nom. Hecht Co. v. FCC*, No. 87-1396 (D.C. Cir. Dec. 7, 1987); *MTS and WATS Market Structure, Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board*, 4 F.C.C.R. 5660 (1989) (establishing definitive jurisdictional policy on lines having mixed intrastate and interstate use).

50. Mayer-Schönberger, *supra* note 8, at 584.

51. For background on the organization of the European Commission and its relationship with member states see EUROPEAN COMMISSION, *KEY PLAYERS IN EU LEGISLATION*, at <http://www.europa.eu.int/eur-lex/en/about/pap/> (last updated Apr. 12, 2002).

B. Semantic Games: International Accounting Rate Arbitrage

Because international accounting rates⁵² remain at artificially high levels for many routes, carriers and their customers strategize on how to route traffic exempt from the settlement process. The vehicles for avoiding high accounting rates include the use of callback services, which provide dial tone to end-users physically situated in another country, and linking international private lines with a switch that secures access to the PSTN. These options may violate International Telecommunication Union ("ITU") recommendations⁵³ and carrier tariffs, because they enable end-users to secure services in a manner that the carrier did not intend to provide. While such bypass strategies may expedite reforms, their use flouts uniform rules of the road. For example, the ITU Recommendations on leased international private lines contemplate the consultation and agreement on the scope of service. Private lines, by definition, provide closed, intra-corporate networking capabilities, not the functional equivalent to switched public, long distance services.

What is occurring in international telecommunications parallels the gray market in international commercial aviation where carriers look the other way or clandestinely collaborate with ticket resellers, consolidators and brokers who offer seats at rates well below the published tariff.⁵⁴ In international telecommunications, sophisticated

---

52. For background on how international telecommunications carriers divide toll revenues using the accounting rate regime see Robert M. Frieden, *Falling Through the Cracks: International Accounting Rate Reform at the ITU and WTO*, 22 TELECOM. POL'Y 963 (1998); Robert M. Frieden, *The Impact of Call-Back and Arbitrage on the Accounting Rate Regime*, 21 TELECOM. POL'Y 819 (1997); Robert M. Frieden *International Toll Revenue Division—Tackling the Inequities and Inefficiencies*, 17 TELECOM. POL'Y 221 (1993); Paul W. Kenefick, *A Step in the Right Direction: The FCC Provides Regulatory Relief in International Settlements and International Services Licensing*, 8 COMM. L. CONCEPTS 43 (2000).

53. *Recommendation D.1, Sec. 7.1.1, in*, ITU INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE BLUE BOOK, VOL. II, FASCICLE II.1, suggests that administrations can condition, consult and agree to the scope of access to public networks provided to users of international private leased circuits. To the extent that a private line reseller or end-user does not engage in such consultation and erects a system for accounting rate evasion, then the host country may deny access to the PSTN. However, in many instances accounting rate avoidance schemes may go undetected by the carrier providing interconnection. *Id.*

54. International carriers do provide discounted rates to high volume users, e.g., as an incentive to migrate from unmetered private lines to metered "virtual" (software defined) private lines using the public switched network. The carriers avoid application of artificially high accounting rates by creating a new service category and applying a different, and lower, accounting rate. Foreign carriers typically have no obligation to justify how the new rate does not discriminate against users paying higher charges for existing offerings subject to accounting rates.

users and system integrators design private line networks that avoid accounting rates liability. Carriers originally offered unmetered private lines as a way to utilize excess capacity and satisfy large volume user requirements for closed, internal networks. Private branch exchanges and other customer-controlled equipment have enabled users to interconnect unmetered international private lines with local public switched telephone networks. Such leakiness enables the private line subscriber to access users outside the internal network. Expanded access to a private line network means that users, who otherwise would have to use International Message Telephone Service ("IMTS") circuits, can opt for specially configured private line access for functionally equivalent service.

Resellers can expand the reach of leaky private lines with higher capacity switches. Some carriers and their regulatory overseers do not object to this type of pure resale since it does not enhance leased lines. Resale stimulates overall capacity demand, and it can reduce outbound IMTS accounting rate liability, particularly where regulatory policies block or limit inbound resale. Some carriers, intent on capturing larger market shares by aggregating and routing regional traffic through a hub, may engineer a complex array of private lines and acquire both half-circuits on routes to handle accounting rate exempt traffic. Transiting, the routing of traffic destined for another country across domestic facilities, presents another opportunity for carriers and new international telephone entrepreneurs alike to engineer innovative new arrangements for users.⁵⁵

Since the early 1990s, the FCC has taken a more proactive role in accounting rate oversight. The FCC aimed toward encouraging carrier and end-user self help, through routing strategies that collectively made high accounting rates unsustainable. The FCC also adopted a get-tough policy with international carriers, including

---

55. Even companies with limited budgets can get into the international telecommunications business and exploit high accounting rate and end user charge differentials. A *boomerang box* enables callers, in high cost foreign locations, to place a call to the United States, hang up and soon receive a call from the United States with the intended call recipient on the line. At the micro-level, the foreign caller avoids having to pay the significantly higher charge for originating an international call, the foreign carrier loses some toll revenues and the USISC handling the international call accrues some additional toll revenues. At the macro-level, the transaction contributes to the expanding United States accounting rate deficit thereby blunting the foreign carrier's revenue losses and the USISC's revenue gains. See generally Frieden, *supra* note 48.

prescribed accounting rates,⁵⁶ because it had grown impatient with the pace of reform in private accounting rate negotiations. While the FCC can properly condition grants of regulatory authorizations and prescribe rates for the carriers it regulates, attempts to affect the behavior and the financial performance of other carriers has generated vocal opposition from at home and abroad that the Commission had failed to appreciate international comity and national sovereignty.⁵⁷

Similarly, an FCC proposal to impose reporting requirements and other means for overseeing the extent of participation in the U.S. telecommunications market by foreign-owned firms⁵⁸ generated arguments that it would violate the commitment to the national treatment of foreign enterprises, such as applying identical regulatory rights, responsibilities and opportunities for foreign-owned carriers as for domestic carriers. The FCC subsequently decided to calibrate the scope of regulatory oversight of foreign carriers to the degree of market access accorded U.S. carriers. This focused particularly on the extent to which U.S. service providers may use leased international private lines to access the PSTN in foreign locales.⁵⁹

---

56. Regulation of International Accounting Rates, Notice of Proposed Rulemaking, 5 F.C.C.R. 4948, 4950 (1990) (The Commission proposed to "establish . . . determine and prescribe just and reasonable accounting rates" if USISCs and their foreign counterparts failed to negotiate rates downward to an FCC-determined benchmark range.). *Id.*

57. When the FCC attempted to influence the timetable for construction and activation of the TAT-7 overseas cable through direct negotiations with foreign governments, foreign carriers deemed such activism intrusive of national sovereignty, and the United States Court of Appeals for the District of Columbia deemed it a violation of the Government in the Sunshine Act. Petition of ITT World Communications, Inc., Order Denying Petition, 77 F.C.C.R. 877 (1980) (denying petition for rulemaking on permissible scope of FCC contacts with foreign administrations to negotiate delayed deployment of a trans-Atlantic submarine communications cable), *reversed*, ITT World Communications v. FCC, 699 F.2d 1219 (D.C. Cir. 1983), *reversed on other grounds*, 466 U.S. 463 (1984).

58. Regulatory Policies and International Telecommunications, Notice of Inquiry, 2 F.C.C.R. 1022 (1987); Regulatory Policies and International Telecommunications, Report and Order and Supplemental Notice of Inquiry, 4 F.C.C.R. 7387 (1988); Regulatory Policies and International Telecommunications, Order on Reconsideration, 4 F.C.C.R. 323 (1989). The FCC has modified its policies that impose more extensive oversight of foreign owned carriers providing international services from the United States. See Regulation of International Common Carrier Services, Notice of Proposed Rulemaking, 7 F.C.C.R. 577 (1992); Regulation of International Common Carrier Services, Report and Order, 7 F.C.C.R. 7331 (1992) (retaining more burdensome "dominant carrier" oversight only where the foreign affiliate of a USISC has the ability to discriminate against unaffiliated carriers through control of bottleneck services and facilities in the foreign market).

59. See Kevin C. Kennedy, *Market Openings in the Telecommunication Goods and Service Sectors*, 33 INT'L LAW. 27 (1999); John J. Alissi, Comment, *Revolutionizing the Telephone Industry: The World Trade Organization Agreement on Basic Telecommunications and the Federal Communications Commission Order*, 13 CONN. J. INT'L L. 485 (1999); Paula Barnes Sours, Comment, *The Impact of U.S. Regulatory Activity on Prospects for*

This mechanism provides strong leverage for achieving market access parity by linking the scope of inbound U.S. market access with reciprocal opportunities for outbound traffic.⁶⁰

Reliance on proliferating private line resale redirected the FCC from direct confrontation with foreign carriers over their sovereign right to negotiate accounting rates to "procedural reforms that remove any U.S. regulatory impediments to lower, more economically efficient, cost-based international accounting rates."⁶¹ The Commission assumed that if resale were available on both an inbound and outbound basis, then the incumbent facilities-based carriers would perceive new incentives to negotiate lower accounting rates to dissuade customers from migrating to private line and resale options. Facilities-based USISCs, facing competition from resellers⁶² who are unencumbered by accounting rate liability, may view high accounting rates as imposing a floor on how low they can price end-user rates "to prevent diversion of . . . customers to a reseller."⁶³ Presumably, resellers providing outbound services from the United States will acquire market share, thereby reducing the number of IMTS outbound minutes subject to accounting rate settlements. A facilities-based carrier, refusing to negotiate accounting rates closer to cost, would "receive fewer revenues from its IMTS customers and, thus, would wind up with fewer revenues overall."⁶⁴

Implementation of the WTO Agreement on Basic Telecommunications, 23 N.C. J. INT'L L. & COM. REG. 645 (1998).

60. See *Cable & Wireless, Inc., Order and Authorization*, 9 F.C.C.R. 7283 (1994); *Cable & Wireless, Inc., Order and Certification*, 8 F.C.C.R. 1664 (1993); *Fonorola Corp. and EMI Corp., Order and Certification*, 7 F.C.C.R. 7312 (1992); *Fonorola Corp. and EMI Corp., Order on Reconsideration*, 9 F.C.C.R. 4066 (1994) (authorizing British and Canadian resellers to provide international service upon finding that the foreign country on the other end of the circuit provides equivalent opportunities to U.S. carriers to resell interconnected private lines).

61. *Regulation of International Accounting Rates, Report and Order*, 6 F.C.C.R. 3552 (1991).

62. "Resale [of leased private lines] would bypass the accounting rate mechanism—a major cost to the traditional carrier mode of operation—and increase the feasibility of creating unidirectional traffic channels." Ken Cheong & Mark Mullins, *International Telephone Service Imbalances*, 15 TELECOM. POL'Y 107, 116 (1991). If resale remains unidirectional, United States facilities based carriers and consumers will not benefit: Resale occurring only in the inbound United States direction would increase the United States accounting rate deficit. Resale must be bi-directional to have the effect of "expos[ing] the differential between tariffs and accounting rates and ultimately force traditional carriers to renegotiate accounting rates closer to service costs." *Id.* at 116–17.

63. *Regulation of International Accounting Rates, First Report and Order*, 7 F.C.C.R. 559, 560 (1992). "To the extent that the accounting rate is above cost, the underlying carrier will face a constraint on how much of a reduction in its revenues it can tolerate." *Id.* at 561, para. 16.

64. *Id.*

C. *The Internet as a Medium for Arbitrage*

Absent network congestion, the cost to carry or process an additional minute of Internet traffic approaches zero, because the incremental cost is near zero.⁶⁵ This pricing system enhances consumer welfare, stimulates usage, revenue generation, and accrues positive networking externalities.⁶⁶ The Internet adds thousands of new sites and users daily with such expanded access opportunities accruing greater utility for all users. As long as ample capacity remains available along with moderate transport and content costs, ISPs need not meter traffic and can offer service on an All You Can Eat ("AYCE") usage insensitive basis.

ISPs can offer AYCE service, because they have been able to recover high fixed costs and incur relatively low incremental costs absent network congestion. They can represent that their network extends globally even though few, outside of a small group of Tier-1 backbone network operators, actually have built or leased such an extensive array of facilities. Until recently, ISPs have incurred little additional expense in providing their customers opportunities to access the Internet networks of networks via incumbent telecommunication carriers' facilities.⁶⁷ Accordingly, ISPs have had opportunities to tap into the same financial and distance insensitive service opportunities as those available where telecommunication entrepreneurs exploit the porousness of telecommunication networks and the relative ease in accessing the PSTN. One can consider Internet-mediated telephony⁶⁸ in the same context as other

---

65. This pricing scenario presupposes that an ISP does not incur usage sensitive prices for any major element of service. For many Asia-Pacific routes, the need to access network access points in far away locations, e.g., the United States, does impose significant costs. To offset the charges of facilities-based telecommunications carriers, ISPs may charge end users on a usage sensitive basis, e.g., an hourly surcharge after an initial allocation of access time.

66. A positive network externality exists when the cost incurred by a user of the Internet does not fully reflect the benefit derived with the addition of new users and points of communications. See John Farrell & Garth Saloner, *Standardization, Compatibility and Innovation*, 16 RAND J. OF ECON. 70 (1985); Michael L. Katz, & Carl Shapiro, *Network Externalities, Competition and Compatibility*, 75 AM. ECON. REV. 424 (1985). See also Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998).

67. The author acknowledges that "free rider" opportunities via other ISPs are becoming more scarce as the Internet becomes more hierarchical and larger ISPs demand and receive payments for providing transit services to ISPs with fewer customers, less bandwidth and limited sources of desirable content. See Robert M. Frieden, *Last Days of the Free Ride? The Consequences of Settlement Based Interconnection for the Internet*, 1 INFO. 225 (1999).

68. See Robert M. Frieden, *Dialing for Dollars: Will the FCC Regulate Internet Telephony?*, 23 RUTGERS COMPUTER & TECH. L.J. 47 (1997).

technological innovations like callback,⁶⁹ switched hubbing,⁷⁰ refile,⁷¹ and international simple resale⁷² that provide new, lower priced alternatives to the "retail" rate for toll telephone services.

Internet telephony shifts the balance of market power from carriers, which traditionally have set prices on a cost-plus basis, to consumers, who may emphasize price and consider telephony a commodity business. If telephony minutes of use become fungible, with voice traffic subordinate to an increasing volume of data, then service providers will have limited, if any, ability to saddle users with

69. *Philippine Long Distance Tel. Co. v. Int'l Telecomm. Ltd.*, Memorandum Opinion and Order, 12 F.C.C.R. 15,001 n.10 (1997) ("Callback" is a technology used to provide international telecommunications service from a foreign country" through a switch in the U.S. or other nation with low collection charges and options for private line resale and routing options that reduce or eliminate accounting rate liability). See Robert M. Frieden, *Falling Through the Cracks: International Accounting Rate Reform at the ITU and WTO*, 22 *TELECOM. POL'Y* 11 (1998); Robert M. Frieden, *The Impact of Call-back and Arbitrage on the Accounting Rate Regime*, 21 *TELECOM. POL'Y* 819 (1997); Rob Frieden, *Without Public Peer: The Potential Regulatory and Universal Service Consequences of Internet Balkanization*, 3 *VA. J. L. & TECH.* 8 (1998), at http://vjohn.student.virginia.edu/graphics/vol3/home_art8.html. See also *Refile and Alternative Calling Procedures: Their Impact on Accounting Rates and Collection Charges*, OECD/GD(95)19 (Paris, 1995) [hereinafter cited as 1995 OECD Refile and Callback Report]; *New Technologies and Their Impact on the Accounting Rate System*, OECD/GD(97)14 (Paris, 1997) [hereinafter cited as 1997 Accounting Rate Study]. See generally, ROBERT M. FRIEDEN, *MANAGING INTERNET-DRIVEN CHANGE IN INTERNATIONAL TELECOMMUNICATIONS* (2001).

70. Policy Statement on International Accounting Rate Reform, 11 F.C.C.R. 3146, 3147 n.3 (1996) (citing Market Entry and Regulation of Foreign-Affiliated Entities, Report and Order, 11 F.C.C.R. 3873 (1995)) (The FCC defined switched hubbing as "the routing of U.S. switched traffic over U.S. international private lines, whether resold or facilities-based, that terminate in equivalent countries and then forwarding that traffic to a third, non-equivalent country by taking at published rates and reselling the international service of a carrier in the equivalent country.") *Id.* at n.9.

71. 1995 OECD Refile and Callback Report, *supra* note 69, at 11.

Refile or the hubbing of traffic is using one country to collect traffic and switch this traffic to other countries . . . . For example, the price of a call from Denmark-Finland-Australia is cheaper than a direct call from Denmark to Australia . . . US \$0.46 + US \$1.03 compared to US\$2.01. In this case a third country calling service [using conventional switched services] would be viable having a margin of US\$ 0.52 per minute.

Id.

72. 1997 Accounting Rate Study, *supra* note 69, at 36. International simple resale ("ISR") involves the use of a private line by more than one customer with access to the public switched network at one or both ends. ISR presents both profit enhancing opportunities and bypass threats to facilities-based carriers providing the capacity. On one hand, "[f]acility providers today find that it is more profitable to provide excess capacity to resellers and allow them to find customers and market this capacity rather than marketing this capacity themselves. Resale allows more segmented and flexible marketing including more market oriented prices." *Id.* On the other hand, "ISR service provision by-passes the international charging and settlements system, and therefore places significant [downward] pressure on accounting rates." *Id.* at 38.

rates significantly above cost, despite the fact that carriers do plow back a large percentage of any financial surplus to achieve universal service and infrastructure development objectives.

The onset of Internet-mediated telephony has the potential for bringing to a head the long-simmering debate over the propriety of pricing telecommunication services above cost, in part to promote a universal service mission. It may also trigger closer examination of what constitutes the actual cost that a carrier incurs to route a minute of telecommunication traffic:

a polarization [exists] between a group of countries with relatively competitive prices and low accounting rates, and a second group of countries with prices significantly above cost. . . . The danger is real, especially between OECD countries and a number of non-OECD countries who have difficulty in envisaging the benefits which they can attain from competitive telecommunication markets.⁷³

D. Internet Telephony Threatens the Status Quo

Currently international accounting rates for most routes substantially exceed the total cost incurred by two or more foreign correspondents to switch and route a call from originator to recipient.⁷⁴ The onset of higher capacity submarine cables and satellites coupled with digital signal processing and switching and circuit multiplication technologies has significantly reduced per-mile and per-call costs,⁷⁵ although the cost savings may not be the same for

---

73. *Id.* at 32.

74. Carrier correspondents match half-circuits to erect a complete link from call originator to call recipient. The half-circuit concept operates on the presumption that carrier correspondents achieve a whole circuit by linking two half-circuits at the theoretical midpoint of a submarine cable, or at the satellite providing the transmission link. In the submarine cable scenario, each carrier has responsibility to secure access to circuits linking transmission facilities on its territory to the location where the cable makes its landfall (referred to as the cablehead), possibly located in a different nation, and onward to the midpoint. For more background on international telecommunications operations and policy, see ROBERT M. FRIEDEN, *MANAGING INTERNET-DRIVEN CHANGE IN INTERNATIONAL TELECOMMUNICATIONS* (2001); ROBERT M. FRIEDEN, *INTERNATIONAL TELECOMMUNICATIONS HANDBOOK* (1995).

75. See INTERNATIONAL TELECOMM. UNION, *THE COST OF INTERNATIONAL TELEPHONE CALLS*, at <http://www.itu.int/osg/spu/intset/whatare/dot/chap2.html> (last updated July 30, 2001) (reporting that the per minute cost for routing an international telephone call via an INTELSTAT satellite including operating expenses is US\$0.02 and that factoring all switching, routing, interconnection and administrative costs, including license fees, advertising and taxes "the average per minute cost of an international call is probably around \$0.25.") Using a total service long run incremental cost methodology, which factors in a reasonable contribution to common costs, the FCC established "upper end" settlement rate benchmarks of 15.4¢ for carriers in upper income nations; 19.1¢ for carriers in middle income nations and 23.4¢ for

nations lacking the traffic volumes and funds available to support new technologies having lower per unit costs. However, absent competitive or regulatory pressure to reduce accounting rates and retail collection charges to levels commensurate with such lower costs, carriers that terminate more calls than they originate want to maintain the status quo. Accordingly, accounting rates continue to overstate cost and overcompensate some operators:

The pace in introducing competition in international telecommunication markets and the reform of these markets is slow, and there is an apparent reluctance in many cases by governments to accelerate reform in this area. It therefore cannot be expected that significant changes in prices (collection charges) and accounting rates will take place given present attitudes and policy frameworks.⁷⁶

In the absence of competitive necessity, an aggressive campaign by regulators in sufficient numbers, or widespread use of Internet telephony and other arbitrage tactics, many carriers continue to benefit from traffic retardation strategies that reduce outbound calling and expand asymmetry between inbound and outbound traffic volumes.⁷⁷ For some nations, purposefully high accounting rates and commensurately high collection charges accrue financial dividends by reducing the volume of outbound traffic that otherwise would offset at least a portion of the settlement surplus. Even as they may reduce some high profit operator-assisted outbound international calls,

---

carriers is lower income countries. See *International Settlement Rates*, Notice of Proposed Rulemaking, 12 F.C.C.R. 6184 at 6203 ¶ 47. The Commission proposed a 9–22¢ upper range for benchmark settlement rates for carriers in upper income nations; 12–26¢ for carriers in middle income nations and 13–33¢ for carriers in lower income nations. *Id.* ¶ 48. In its 1997 Order, the Commission responded to foreign carrier and government opposition to its proposed timetable by creating a fourth income category and by extending the transition period. See *International Settlement Rates*, 12 F.C.C.R. 19,806 (1997). The FCC established the following benchmarks and timetables for compliance: U.S.-licensed carriers operating on routes to upper income countries have one year from the effective date of this Order (until January 1, 1999) to reach the applicable benchmark rate of 15 cents with carriers in upper income countries. U.S.-licensed carriers have two years, or until January 1, 2000, to reach the applicable rate of 19 cents with upper middle income countries, and until January 1, 2001 to reach the same rate with lower middle income countries. They have until January 1, 2002 to reach the applicable 23-cent rate with low-income countries, and an additional year, until January 1, 2003, to do so with countries with a telephone line penetration rate (teledensity) of less than one. *Id.* at 19,815–16 ¶¶ 19, 22.

76. 1997 Accounting Rate Study, *supra* note 69, at 6.

77. Many international carriers have objected to the FCC's campaign to reduce international accounting rate tactics on fairness and jurisdictional levels. However, an appellate court has ruled that the FCC's settlement rate prescription did not violate domestic or international law, nor did it impose its jurisdiction extraterritorially. See *Cable & Wireless v. FCC*, 166 F.3d 1224 (D.C. Cir. 1999).

callback and other call-reorigination services⁷⁸ increase the volume of inbound calls, at least some of which trigger an accounting rate settlement.⁷⁹ For nations requiring carriers to route return traffic proportionate with what they received inbound,⁸⁰ carriers from other nations with more outbound traffic than inbound traffic face the potential for expanding settlement deficits if outbound calling continues to grow even as demographic characteristics, or regulatory policies elsewhere continue to dampen demand for inbound calling. Carriers with inbound traffic surpluses typically operate in small and developing countries, but others operate in nations that appear to have a strategy of deliberately maintaining high accounting and collection rates.⁸¹

Outbound international call retardation strategies create pent-up demand and stimulate accounting rate and collection arbitrage opportunities and incentives for users and entrepreneurial carriers⁸² to find ways to route traffic that reverse the accounting rate settlement or avoid triggering one entirely. A settlement surplus generates a source of hard currency for telecommunications infrastructure development, and such transfer payments from users in developed nations to

---

78. 1997 Accounting Rate Study, *supra* note 69, at ¶12. (“[C]ountry direct benefits U.S. [and other] consumers but inflates the settlements deficit by converting foreign-originated traffic into U.S.-billed calls.”).

79. *Id.*

The traditional settlement rate system assumes that a customer's physical location determines the place of origin of an international call, with the carrier in the originating country paying a settlement rate to the carrier in the terminating country. However, service innovations such as callback allow customers to change the originating country for settlement purposes. The result is that many more calls are originated for settlement purposes from countries like the United States with vigorous retail and wholesale markets than in monopoly markets that lack similar competition. These traffic routing patterns will only be exacerbated as countries implement their market access commitments under the WTO Basic Telecom Agreement.

Id. Callback operators look for opportunities to reduce accounting rate exposure, through refile, and to avoid them entirely by routing traffic via private lines that “leak” into the PSTN.

80. For nations with large populations, high gross domestic products, large ex patriate and immigrant communities, and multiple facilities-based carriers, e.g., the United States, operators may have collection rates at levels below one-half the accounting rate. Such carriers expect to recoup outbound traffic losses with inbound traffic subject to an accounting rate settlement that would overcompensate the carrier for terminating the call.

81. A thriving international dial-a-porn industry has developed in such diverse and unpredicted places as Guyana, Russia, and Tuvalu in part because operators can tap into a share of comparatively higher accounting rates well above the FCC's settlement rate prescription.

82. Many facilities-based carriers offer services with lower per minute charges than conventional, International Direct Distance dialing. While such carriers do not want to cannibalize high margin services, they recognize the need to compete with callback operators.

carriers in developing ones can enhance consumer welfare and promote networking externalities. On the other hand, no guarantees exist that only developing countries will pursue an outbound call retardation strategy, or that beneficiaries of settlement surpluses will use the funds for infrastructure development as opposed to funding the general treasury or stock dividends. Likewise, reduced outbound international calling may retard trade, industry and integration of a nation regionally and globally.

The Internet has evolved into a vibrant medium for communications, entertainment, education, and commerce. One of the primary drivers for the growing consumer reliance on Internet-mediation involves the Internet's ability to offer instant real time delivery of digital packets in addition to the store and forward non-real-time delivery of packets in applications like electronic mail. Real time streaming of information packets means that the Internet can serve as a medium for audio and video programming and also for telephone services.

In the accelerated pace of product and service life cycles common to the Internet, telephone type services have quickly evolved from an awkward personal computer-mediated curiosity to a commercial service available not just from computers, but from conventional telephones as well. Internet telephony has the potential to serve as a major threat to the international accounting rate regime and possibly to how telecommunication carriers price retail long distance services for two primary reasons. First, the Internet architecture provides for efficient facilities loading, including the ability of telecommunications networks dedicated for data services to handle voice traffic at near zero cost, absent congestion. Second, regulatory policies throughout the world largely exempt providers of Internet services from having to subject their traffic to accounting rate settlements and having to pay the interconnection charges and contributions to universal telecommunications service funding imposed on telecommunications carriers.

Internet telephony constitutes a formidable vehicle for compressing telecommunication carrier margins on telephone services. ISPs can easily add telephony traffic onto their data lines, and technological innovations provide ways to inject Internet voice traffic into the PSTN for the last mile delivery to call recipients. Given the large difference between ISPs' costs incurred in providing Internet telephony and the retail charges for conventional telephone services, especially international rates, ISPs can profit handsomely by pricing service well below the preexisting retail toll charge. This

exploitation of a wide pricing differential constitutes a type of arbitrage as the ISP can make a business case for delivering services to consumers at significantly lower costs. ISPs have plenty of margin with which to work, such as the difference between its actual costs and the imputed cost established by route specific accounting rates based on conventional telephony.

E. Technology Provides Arbitrage Opportunities

Internet telephony uses the digital, packet-switched nature of the Internet, along with its routing and addressing standards, to provide real-time audio conferencing.⁸³ Internet switching and routing technology manages the transmission and processing of text, graphics, data, audio, or video. The Internet's TCP/IP protocols⁸⁴ provide a standard vehicle for subdividing content, such as a voice conversation, into a stream of packets that are routed via any available path between the sender and the intended call recipient. Each packet has space reserved for destination information so that intermediary routing facilities can read header data to determine how and where to send the packets onward toward their intended destination. Headers include a sequence of digits that correspond to an Internet address, much like the numbering sequence in direct distance dialing via telephone.

Packet switching efficiently uses available switching and routing capacity. Likewise, it can operate despite outages, blockages, and busy conditions, because the Internet Protocol addressing scheme

---

83. For a helpful non-technical introduction to Internet telephony see Kevin M. Savetz and Andrew Sears, *Frequently Asked Questions: How Can I Use the Internet as a Telephone?*, THE INTERNET TELEPHONY CONSORTIUM (July 25, 1996), at http://itc.mit.edu/itel/docs/MISC/voice_faq.html.

84. Richard Allan Horning, *Has Hal Signed a Contract: the Statute of Frauds in Cyberspace*, 12 SANTA CLARA COMPUTER & HIGH TECH. L.J. 253, 258 (1996).

The common denominator for e-mail communications is the use of a standard programming protocol, TCP/IP-Transmission Control Protocol/Internet Protocol-upon which inter-computer communications are based. The TCP protocol divides messages into packets that are marked with a sequence number and the address of the recipient. TCP also inserts error control information. The packets are then sent over the network to the addressee. The routing of the individual packets varies, with IP controlling the transport of the packets to the remote host computer. At the remote host, TCP receives the packets and checks for errors. When an error occurs, TCP asks for the particular packet to be re-sent. Once all the packets have been received, TCP will then use the sequence number to reconstruct the original message. It is the job of IP to get the packets from one place to another; it is the job of TCP to manage the flow and insure that the data are correct.

Id.

makes it possible for multiple efforts to route traffic onward in the event that initial efforts fail. Resending misdelivered or unreceived packets and routing them via different and possibly circuitous links requires software processing to reassemble the packets in proper order. For traffic and services that do not require immediate, real-time delivery, like electronic mail, possible delays and reassembly present little problem. However, Internet telephony requires immediate, real-time delivery of the packets in their proper order. Any delay, loss, or improper sequencing of packets will result in distortion or the temporary loss of the audio stream.

Heretofore, Internet telephony has lacked the quality, reliability, and security to be considered comparable to conventional telephone services. Traditional telephone services use circuit switching that sets up a dedicated link between call originator and call recipient. This technology provides for high quality service and reliability, because a dedicated pathway exists, as opposed to the virtual, on-the-fly links provided via the Internet. A dedicated pathway may be technologically wasteful in the sense that switching, routing, and transmission capacity lies dormant during pauses in a conversation. Packet switching technology efficiently fills in gaps with other traffic so that traffic may traverse different routes and arrive at different times in getting to the same destination. In circuit switching, all parts of a traffic stream traverse the same pathway, providing greater quality assurance.

What Internet telephony lacks in quality of service and reliability, it makes up for in lower costs and the ability to narrow the gap between carriers' costs and retail charges. However, some users may care more about reliability of service and less about savings. Currently, Internet traffic cannot easily be classified by priority of service or by type of application. Best efforts in routing of traffic may not provide the security, safety, and reliability that a user may require. For those willing to take the qualitative risk, the financial savings are significant. However, Internet telephony consumers have to incur some initial, up-front costs. Unlike conventional telephone service, the cheapest types of Internet-mediated telephony require a significant initial capital outlay of about \$2,000.00 for a personal computer, modem, sound card, speakers, microphone, software, and Internet access. Conventional telephone services use an inexpensive, dumb terminal, the telephone handset, but users incur per-minute charges that can exceed \$1.00 a minute for many international destinations. Internet telephony provided on a conventional dial-up basis, such as through a toll-free access number, requires an ISP to

install devices that can convert circuit switched telephone traffic into packets and vice versa. Additionally, these devices must provide a routing function, using the Internet Protocol to bring traffic to a facility, commonly referred to as a point of presence, in the vicinity of the call recipient.

F. Financial and Regulatory Arbitrage and the Potential Impact on Telecommunications Pricing

Internet telephony provides incumbents and newcomers profitable opportunities to offer services functionally equivalent to conventional telephony, but treated in a manner that subjects the service to little or no regulation and accrues lower operational costs. Entrepreneurs savor the opportunity to exploit financial and regulatory anomalies and asymmetries in telecommunications. This is often accomplished in the ability to lease private lines, link them with the PSTN and offer a long-distance telephone service to individual consumers who otherwise would not qualify for bulk discounts offered previously only to high volume private line users.

Internet telephony has the potential to migrate traffic from conventional telecommunications networks. Incumbent carriers surely do not want to encourage such a migration, as it will create downward pressure on all telephone toll rates and cannibalize retail rates. On the other hand, incumbent carriers will probably determine that they are financially better off providing the transmission capacity for Internet telephony, albeit at lower margins, than if they lose customers' traffic entirely. The massive increase in domestic and international broadband telecommunication capacity reflects the view that carriers can make up in volume what they will lose in margin.

V. THE PROBLEMS IN REGULATORY ASYMMETRY

Any regulatory regime applied exclusively to Internet applications runs the risk of creating a dichotomy in regulatory rights and responsibilities between providers of functionally equivalent services. Many of the services available via the Internet provide a faster, better, cheaper, and smarter evolution of preexisting services. The Internet provides a convenient, user-friendly medium for acquiring news and entertainment and for engaging in all sorts of commercial transactions. A bias or intention not to regulate, or to lightly regulate such activities, may contrast significantly from a preexisting and more intrusive regulatory model. Governments should not automatically extend the application of legacy regulatory

regimes⁸⁵ to Internet-mediated equivalent services. Nor should governments deregulate incumbent services simply because Internet options have become available, and governments have opted to apply a different, and probably less burdensome, regulatory regime to Internet services.

The onset of Internet-mediated services does present a regulatory challenge to governments, particularly those disinclined to treat Internet-mediated services as equivalents to services transmitted and delivered via traditional media. The juxtaposition of different regulatory regimes also typically creates an asymmetry that has the potential for tilting the competitive playing field in favor of the less regulated service. To the extent regulation can impose financial and operational burdens, the service provider subject to greater regulation typically suffers a competitive disadvantage *vis-à-vis* the less-regulated operator. Governments should generate compelling justifications for establishing different regulatory regimes in view of the potential for such asymmetry to impact the marketplace attractiveness of one service *vis-à-vis* others.

Regulatory dichotomies work best when technological categories remain discrete and absolute. They surely do not work, though, when technological convergence results in porous service categories and diversification by operators. When cable telephone and ISPs offer telephone services functionally similar to that available from telephone companies, regulators may not be able to maintain preexisting dichotomies. Heretofore, government regulators have assumed that incumbent telephone service providers have dominant market shares, should operate as common carriers and offer the best technologies and wherewithal to achieve universal service goals. Government regulators typically assume that market entrants like ISPs, other enhanced service providers and resellers of basic transmission capacity do not have the potential to acquire a dominant market share, or that they offer ancillary, non-common carrier services. While incumbent telephone companies incur significant

---

85. JASON OXMAN, FEDERAL COMMUNICATIONS COMMISSION, THE FCC AND THE UNREGULATION OF THE INTERNET, July 1999, at 24-25, at <http://www.fcc.gov/opp/workingp.html> (last updated Feb. 4, 2002).

New technologies, while perhaps similar in appearance or in functionality, should not be stuffed into what may be ill-fitting regulatory categories in the name of regulation. Rather, the Commission should continue the approach of studying new technologies and only stepping in where the purpose for which the Commission was created, protecting the public interest, demands it.

Id.

financial duties to serve costly remote areas, the newcomers enjoy exemptions from having to pay charges for accessing the PSTN and from contributing to universal service funding. These ventures qualified for such exemptions on grounds that they did not offer telephone service even though their offerings might require access to the PSTN.

When ISPs offer consumers telephone service equivalents, which link PSTN access with Internet-mediated telephony, preexisting regulatory exemptions tilt the competitive playing field to their advantage. Should significant telephony traffic volumes migrate to routings exempt from universal service contribution requirement, the sum of funds available to achieve the universal service mission will decline. The potential for declining universal service funds occurs just as many governments have articulated a broader and more ambitious universal service mission for all citizens to have access to both basic telephone service and advanced Internet services.

VI. CONCLUSION

Most national regulators have prudently refrained from extending legacy regulation to new technologies and services that may resemble something offered by incumbents. Surely regulation can drag and thwart marketplace development, and conversely, regulatory forbearance can incubate and nurture new technologies and services. However, at some point, newcomers may so develop market share and service functionally equivalent to what incumbents offer, but without incurring anything like the regulatory burdens incumbents bear. At this point, regulatory asymmetry provides for less marketplace incubation and more marketplace distortion.

The private carrier, enhanced service provider, and interstate service classification each provided rational exemptions from more costly and intrusive regulatory classifications in the United States. Regulatory arbitrageurs, however, came to understand that qualifying for these classifications provided back-door opportunities to acquire market share and profits. It appears that the FCC has emphasized the potential, but no guarantee that private carriers, CLEC affiliates of ISPs, callback operators and Internet telephony providers will provide both service diversity and financial savings to consumers. Yet the Commission does not assess whether these operators might have generated more consumer welfare enhancements had they been forced to comply with legacy regulations and had been motivated to join with incumbents to streamline or reduce them.

Conferring too comfortable an unregulated niche or financial windfall eliminates the incentive for ventures to innovate, diversify, and become facilities-based operators. Unless and until an arbitrage opportunity closes, resellers, callback operators, and Internet telephony vendors can possibly do better by conserving capital and not investing heavily in facilities and developing other indicia of similarity with incumbents, lest they lose a regulation-conferred competitive advantage.

Likewise, the trade policy-making apparatus appears to have conferred regulatory arbitrage opportunities for Internet ventures. Ventures can provide cable television or Internet-mediated audiovisual services without triggering market access limitations applicable to broadcasters, satellite carriers and movie theater operators. Similarly, ventures are able to offer market access limited basic services, but characterize them as value-added services, which typically have greater market access opportunities.

At some point, national regulators and international trade policy-making forums unwittingly tilt the competitive playing field in favor of players clever enough to craft a service definition that permits aggressive competition with incumbent services, but which qualifies the clever player for a host of arbitrary and anomalous loopholes that exempt or reduce the cost and inconvenience in regulatory compliance, or market access limitations. Incumbents may suffer simply because of the legacy regulations that continue to apply, rather than because they have greater market share, and the real or perceived ability to exploit a bottleneck or handicap market entrants with price squeezes.⁸⁶

Both telecommunications and trade policy-making forums have to confront the consequences of ICE convergence. They cannot rely on service definitions based on static or historical assumptions about

---

86. In a price squeeze situation, a vertically integrated firm with market power over an essential upstream input raises the price of this input to rivals competing in downstream retail markets. The increased cost of this essential input forces downstream rivals to raise their retail prices. The vertically integrated firm is then in a position to undercut the downstream rivals in retail markets and thereby increase market share and profits. See MICHAEL KENDE, FEDERAL COMMUNICATIONS COMMISSION, *THE DIGITAL HANDSHAKE: CONNECTING INTERNET BACKBONES*, Sept. 2000, at <http://www.fcc.gov/opp/workingp.html> (last updated Feb. 4, 2002). See also, *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 437-38 (2d Cir. 1945) (articulating a four-part test for price squeeze: (1) a firm has monopoly power with respect to one product, (2) its price for that product is higher than a "fair price," (3) that product is required to compete in a second market where the monopolist itself competes, and (4) the monopolist's price in the second market is so low that competitor's cannot match it and still earn a "living profit.").

what technology can do. They must devise technology neutral classifications and recognize that technological and marketplace convergence integrates content and conduit. Technology neutrality examines the nature of the service without regard to the medium or mode of delivery.

This model has the potential for expanding the reach of regulation, but offers greater consistency and rationality. Regulatory expansion might occur if cultural concerns led nations to expand audiovisual restrictions to cable television and Internet-mediated services. However, greater consistency and rationality occurs when regulators concentrate on the effect and impact on consumers and the scope of competition without regard to the medium or technology used to access consumers and penetrate markets.

The European Union has embraced a technology-neutral, horizontal approach to telecommunications regulation in response to technological and marketplace convergence:

Regulation needs to be transparent, clear and proportional and distinguish between transport (transmission of signals) and content. This implies a more horizontal approach to regulation with a homogenous treatment of all transport network infrastructure and associated services, irrespective of the nature of the services carried. A balanced solution as to how public broadcasting can be best integrated into the new environment is needed.⁸⁷

Such a technology-neutral model should be the basis of future revisions to ICE regulation.

---

87. Press Release, European Commission, Results of the Public Consultation on the Green Paper on the Convergence of the Telecommunications, Media and Information Technology Sectors, (Mar. 10, 1999), at <http://europa.eu.int/ISPO/convergencegp/ip164en.html>. See also The Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation: Results of the Public Consultation on the Green Paper [COM(97)623], COM(99)108 final, available at [http://europa.eu.int/ISPO/convergencegp/com\(99\)108/com\(99\)108enfinal.html](http://europa.eu.int/ISPO/convergencegp/com(99)108/com(99)108enfinal.html); Green Paper on the Convergence of the Telecommunications, COM(97)623 final.