

Regulatory Opportunism in Telecommunications: The Unlevel Competitive Playing Field

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New regulations typically encourage thinking about ways to evade or profit from changed circumstances. Depending on your perspective, clever and unanticipated outcomes help blunt the adverse and meddlesome impact of regulations, or prevent regulation from fully achieving essential public policy objectives. Perhaps because of the pace of technological and marketplace change, legislators and regulators have unwittingly created more than an average number of opportunities for mischief and opportunism in telecommunications sectors.

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. With skillful maneuvering a largely unregulated venture can provide services functionally equivalent¹ 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”) can qualify for “reciprocal” interconnection payments from local exchange carriers without having to generate a return flow of traffic. ISPs also can offer Internet-mediated long distance telephone services free of interconnection charges and the duty to make universal service contributions like that borne by competitors. Other longer standing tactics include selecting a favorable jurisdiction (federal instead of state), legal classification (private carrier instead of common carrier) and cash flow status (reseller instead of facilities-based carrier).

The Law of Unintended Consequences

The authors of the Telecommunications Act of 1996² (“’96 Act”) had great expectations that they could engineer competition and enhance consumer welfare simply by rewriting a law to reflect changed circumstances. Congress assumed that it could craft legislation that created complementary incentives. For incumbent local exchange carriers (“ILECs”), the law attempts to require fair dealing with new competitors. The law also seeks to motivate competitive local exchange carriers (“CLECs”) to construct facilities and to stimulate demand with lower prices and new options even in residential areas.

Congress underestimated the ability of stakeholders to thwart progress through litigation and to exploit ambiguous language in the ’96 Act to maintain or create an unlevel competitive playing field. Stakeholders have

spent more time vying in the courts than competing in the marketplace. Likewise, they have devised clever ways to exploit '96 Act provisions in ways not contemplated by Congress, e.g., routing Internet traffic through a CLEC, affiliated with an ISP, to trigger '96 Act mandated compensation, even though the CLEC has little or no offsetting traffic for ILEC routing.

Technological innovations and market convergence in telecommunications require commensurate adjustments in the legal and regulatory arena, particularly when ventures now can provide functionally equivalent services yet face different regulatory treatment. Legislative changes to the status quo occur most infrequently, while “regulatory lag”³ becomes a more common occurrence as a significant period of time may run before regulations reflect changed technological and marketplace circumstances. During such periods of delayed adjustment the regulatory process may favor one competitor over others, particularly when marketplace conditions trigger new competitive opportunities and technological convergence eliminates barriers to market entry or market segmentation, e.g., a separate wire for telephone and video service. Comparatively lighter regulation of market entrants may properly incubate and promote incipient competition. But on the other hand, without recalibration a regulatory dichotomy may distort markets and handicap incumbents who deserve similar deregulation or streamlined government oversight.

The authors of the '96 Act thought that they had performed such a rebalancing of the telecommunications regulatory regime so that more robust competition might ensue without unduly favoring entrants with preferential treatment, or allowing incumbents to exploit market power and engage in 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 exploiting tilting the competitive playing field to their advantage. While designed to achieved to achieve market access parity, the '96 Act, like so many laws and implementing regulations before it, became a vehicle for clever interpretation, exploitation and litigation.

For example, Congress thought that it could ensure market access parity through a “one-size-fits-all” regulatory classification, e.g., common carriage status for all types of commercial service providers. However, Congress also authorized the FCC to eliminate aspects of traditional common carrier responsibilities should the public interest support it. The new legislative mandate to undo common carrier responsibilities, like filing and complying with tariffs,⁴ combine with previous FCC efforts selectively to streamline regulations if not deregulate entirely. Collectively these apparently procompetitive initiatives have had the impact of expanding the dichotomy between the nature and scope of regulation applied to dominant, incumbent carriers vis a vis market

entrants and other carriers that qualify for streamlined regulation or none at all. Additionally the '96 Act creates more opportunities for enterprises providing the same services to face different regulatory treatment.

Some telecommunications ventures have avoided costly regulatory burdens simply on grounds that they lack market power, 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 '96 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.⁵ For example ISPs and other venture providing enhancements to leased lines do not pay local exchange carrier access charges or contribute to universal service funding even when providing services that if provided by other carriers would trigger such payments.

Both newcomers and subsidiaries of incumbents may secure regulatory exemptions on semantic grounds, i.e., 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 service mission. Alternatively incumbent carriers may create separate subsidiaries to qualify for unregulated or lightly regulated non-dominant, market entrant status.

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 advantages.⁶ This paper will examine a number of semantically driven regulatory dichotomies, e.g., common carrier versus private carrier, basic versus enhanced services and ILEC versus CLEC, with an eye toward determining whether technological convergence and regulatory opportunism defeat the possibility of establishing a dual track regulatory regime. Additionally the paper scrutinizes several marketplace anomalies resulting when a regulatory dichotomy triggers a diversion or inflow of funds based on an operator’s regulatory classification and its adeptness at exploiting arbitrage opportunities. The paper concludes with suggestions on how legislators and regulators might curb regulatory opportunism by abandoning the strategy of classifying carriers based on static technological or economic definitions.

Regulatory Arbitrage

Regulation invites clever and strategic thinking about ways to exploit loopholes and thereby secure a competitive or financial windfall. 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 services that compete with offerings of other stakeholders subject to more burdensome, costly and unfavorable regulatory treatment.

The FCC does not wish to tilt the competitive playing field in favor of one class of player vis a vis others, yet many of its regulatory decisions have that result. Often the Commission may purport not to favor any class of operator, but the nature of the burdens placed on incumbents or the refusal to unburden them relative to market entrants invariably favors the latter group.

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;⁷
- which regulatory agency has jurisdiction over cost allocation and tariffing;⁸
- whether the service is domestic or international;⁹
- whether another carrier or end-user seeks facilities interconnection;¹⁰
- the type of carrier¹¹ or enterprise¹² providing service;¹³ and
- the type of line or facility providing service¹⁴ and whether the service can access the public switched telephone network (“PSTN”).¹⁵

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. But 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.

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 simply to avoid intrastate ratemaking and the jurisdiction of a state public utility commission.¹⁶ Until Canadian long distance telephone rates dropped to U.S. levels, carriers would transit traffic via the U.S. and back into Canada thereby qualifying the traffic for lower Canada-U.S rates than the higher domestic charges. Similarly call-back 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 (intrastate versus interstate rates) or different competitive conditions (high international calling versus lower calling rates).

Semantic Games: Private Versus Common Carriers

Regulatory avoidance and arbitrage also occurs when ventures seek preferred legal classifications. While private carriers used to lack opportunities to target and serve third parties like their common carrier counterparts, over time the FCC permitted such marketing thereby diminishing the difference between private and common carriage.¹⁷

The rights and responsibilities historically vested in common carriers tempered their market power in exchange for reduced liability or insulation from commercial and personal damages caused by the content carried.¹⁸ Historically providers of neutral and transparent conduits did not have to monitor the content carried, nor could they typically refuse access¹⁹ to their bottleneck²⁰ facilities on the basis of content.²¹ Arguably ISPs and mobile radio operators serving third parties operate like common carriers, at least insofar as their carriage of voice telephony traffic and generated by third parties. Yet in the former case, Internet-mediated telephony does not constitute common carriage. However, in the latter case Congress closed a semantic loop hole by deeming all commercial mobile radio services, even if initially classified as private carriage, to be common carriage.²² Subsequent streamlining of common carrier regulation applied equally and fairly to both types of common carriers, incumbents and formerly classified as private carriers.

Arguably the common carrier insulation from liability would support the development of a ubiquitous ISP infrastructure and in turn universal access to information services. On the other hand, common carriage historically has applied exclusively to public utilities and other providers of essential services. Policy makers have not yet deemed Internet access so essential as to place it in the same category as Plain Old Telephone Service (“POTS”) as opposed to other desirable, non-common carrier services like cable television.²³ Additionally, recent developments in the interpretation of what constitutes common carriage does not support

extending the classification to ISPs, or using it as a vehicle to bolster public policy support for universal Internet service.

The dichotomy between common carriers and private carriers has grown murky, because of:
Legislative and regulatory tinkering with the common carrier model;²⁴

Technological innovations;

A growing body of cases articulating robust speaker rights of common carriers; and

Court cases imposing quasi-common carrier obligations on private carriers, e.g., the duty of cable television operators to carry broadcast television signals,²⁵ and quasi-publisher duties on common carriers, e.g., the duty to inquire and disclose whether content is obscene or indecent.

Extension of the common carrier model appears difficult now that common carriers can avoid many of the traditional requirements and non-common carriers have acquired some of the insulation from liability previously available only to common carriers. The '96 Act requires the application of common carriage classification on commercial providers of telecommunication services,²⁶ but authorizes the FCC to abandon virtually all regulatory requirements on any common carrier if circumstances favor such deregulation.²⁷ On the other hand, the '96 Act provides ISPs with a quasi-common carrier exemption from liability for the carriage of material, like obscenity and copyright violations, if the operator had no knowledge that it carried the offending content.²⁸

The Game Continues

Jurisdictional brinkmanship continues despite the reforms engineered by the '96 Act. ISPs have created Competitive Local Exchange Carrier (“CLEC”) affiliates with the sole purpose of qualifying for a compensation stream based on the jurisdictional view that the link from Internet subscriber to incumbent local exchange carrier (“ILEC”) and then onward to the ISP’s CLEC affiliate and finally to the ISP is a local and not an interstate call.

The Telecommunications Act requires reciprocal compensation between ILECs and CLECs based on the view that such a compulsory compensation scheme would encourage market entry and competition in the local exchange services. Reciprocal compensation presumably would favor incumbents who would receive more traffic generated by a CLEC for termination on the ILEC’s network than vice versa. ILECs sought this transfer payment system in lieu of a rough justice “send keep all,” “bill and keep” model, because of the expected asymmetry in traffic flows, i.e., that small, market entrants with few customers typically would hand off more traffic for termination by the incumbent to one of its subscribers than would the incumbent hand off traffic for termination by a CLEC to one of its customers.

ISPs and their CLEC affiliates outsmarted the ILECs by engineering a local exchange routing system that guaranteed the CLEC plenty of traffic originating on ILEC facilities and requiring a transfer to CLEC facilities, but without the prospect for an off-setting return flow. Internet traffic originated by an ILEC customer and handed off to an ISP's CLEC affiliate qualifies for compensation from the ILEC, because the traffic has been deemed local in nature. The FCC recently sought to close the jurisdictional loophole by recognizing that the end-to-end nature of the Internet access call typically delivers the call to an interstate and even global network, but the Commission refrained from upsetting in place interconnection arrangements and preempting state public utility commission jurisdiction over such arrangements. So for the time being Internet access calls trigger the reciprocal compensation requirement even though an examination of the origination and termination "end points" of typical Internet calls proves the interstate nature of most calls. Ironically in previous instances, the FCC considered the presence of even a small portion of interstate calls as "contaminating" an otherwise intrastate line and subjecting that line to federal and not state jurisdiction.²⁷

Internet Access Via Cable

The '96 Act also creates the opportunity for cable television operators to provide Internet access free of both common carrier and cable television franchisee responsibilities even though competitors, providing functionally equivalent services face more burdensome and restrictive regulations. Cable television operators providing Internet access do not have to provide nondiscriminatory access to all ISPs requesting access to the cable operators' customers. Put another way, cable operators can limit their Internet access customers to a single service owned by or affiliated with the cable operator.²⁸ Even as competitors bear traditional common carrier nondiscrimination and open access duties, cable television operators providing Internet access enjoy the twin benefits of:

- 1) not falling into the cable television operator category when providing Internet access;²⁹ and
- 2) qualifying for regulatory forbearance of common carrier responsibilities that still apply to competitors.³⁰

International Accounting Rate Arbitrage

Because accounting rates 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 call-back services, which provide dialtone to end-users physically situated in another country, and linking international private lines with a switch that secures access to the Public Switched Telephone

Network (“PSTN”). These options may violate ITU recommendations³¹ and carrier tariffs, because they enable end-users to secure services in a manner that the carrier did not intend on providing. While such bypass may expedite reforms, it 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 grey 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.³² In international telecommunications, sophisticated users and system integrators design private line networks that avoid accounting rates liability. Carriers originally offered unmetered private lines as a way to fill up 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 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” that 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.³³

Since the early 1990s, the FCC has taken a more proactive role in accounting rate oversight, with an eye toward encouraging carrier and end user “self help,” i.e., routing strategies that collectively make high accounting rates unsustainable. The FCC also adopted a “get tough” policy with international carriers, including prescribed accounting rates,³⁴ 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 generated

vocal opposition, at home and abroad, that the Commission had failed to appreciate international comity and national sovereignty.³⁵

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 firms³⁶ generated arguments that it would violate the commitment to “national treatment” of foreign enterprises, i.e., 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, particularly the extent to which U.S. service providers may use leased international private lines to access the PSTN in foreign locales. 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.³⁷

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 accounting rates . . .”³⁸ The Commission assumed that if resale were available on an equivalent basis, inbound and outbound, 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 resellers,³⁹ 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.”⁴⁰ 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.”⁴¹

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.⁴² This pricing system enhances consumer welfare, stimulates usage and revenue generation and accrues positive networking externalities.⁴³ 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.⁴⁴ Accordingly, ISPs have had opportunities to tap into the same financial and distance insensitive service opportunities as that available when telecommunication entrepreneurs exploit the porousness of telecommunication networks and the relative ease in accessing the PSTN. One can consider Internet-mediated telephony⁴⁵ in the same context as other technological innovations like call-back,⁴⁶ switched hubbing,⁴⁷ refile,⁴⁸ and international simple resale⁴⁹ 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 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 also may trigger closer examination of what constitutes the actual cost a carrier incurs to route a minute of telecommunication traffic:

a polarisation [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. ⁵⁰

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.⁵¹ The onset of higher capacity submarine cables and satellites coupled with digital signal processing and switching and circuit multiplication technologies have significantly reduced per-mile and per-call costs,⁵² although the cost savings may not be the same 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.⁵³

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.⁵⁴ 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, call-back and other call-reorigination services⁵⁵ increase the volume of inbound calls, at least some of which trigger an accounting rate settlement⁵⁶ For nations requiring carriers to route return traffic proportionate with what they received inbound,⁵⁷ 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.⁵⁸

Outbound international call retardation strategies create pent up demand and stimulate accounting rate and collection arbitrage opportunities and incentives by users and entrepreneurial carriers⁵⁹ 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 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 ability of the Internet 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 major threat to the international accounting rate regime and possibly as well to how telecommunication carriers price retail long distance services for two primary reasons:

- 1) the Internet architecture provides for efficient facilities loading including the ability of telecommunications networks dedicated for the data services to handle voice traffic at near zero cost, absent congestion; and
- 2) 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, i.e., the difference between its actual costs and the imputed cost established by route specific accounting rates based on conventional telephony.

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 regulate lightly such activities may contrast significantly with a preexisting and more intrusive regulatory model. Governments should not automatically extend the application of legacy regulatory regimes⁶⁰ 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 typically also 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 a 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 a vis others.

Regulatory dichotomies work best when technological categories remain discrete and absolute. But they surely do not work 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 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.

Regulatory Opportunism

Some providers of Internet-mediated services enjoy the opportunity to provide competitive, functional equivalents to regulated offerings without the same regulatory burdens. Absent adjustments in the legal and regulatory arena, these ventures, typically market entrants, may achieve commercial success without having developed a faster, better, more efficient and more convenient innovation. They may offer something technologically and operationally awkward, but nevertheless cheaper, because regulatory classifications exempt the operator from having to pay regulator-imposed fees.

Legislative changes in telecommunications laws occur most infrequently, and regulatory lag frequently creates an often significant time period during which changed technological and marketplace conditions increasingly contrast with the regulatory status quo. During such periods of delayed adjustment the regulatory process may favor one competitor over others. This can most likely occur when marketplace conditions trigger new competitive opportunities and when technological convergence eliminates barriers to market entry or market segmentation, e.g., a separate wire for telephone and video service.

Conclusion

The FCC prudently refrains 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, interstate service classification each provided rationale exemptions from more costly and intrusive regulatory classifications. But regulatory arbitrageurs 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, call-back 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 if they had been forced to comply with legacy regulations and 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, become facilities-based operators and diversify. Unless and until an arbitrage opportunity closes, resellers, call-back operators and Internet telephony vendors can possibly do better by conserving capital and not invest heavily in facilities and develop other indicia of similarity with incumbents lest they lose a regulation conferred competitive advantage.

At some point the FCC unwittingly tilts 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. Incumbent may suffer simply because of the legacy regulations that continue to apply rather than because they have greater market share, the ability to exploit a bottleneck or handicap market entrants with price squeezes.

NOTES

1. When considering antitrust courts claims, courts typically define markets with an eye toward assessing the scope of the defendant's alleged market domination. Relevant product and service markets include all functional equivalents, i.e., anything a consumer might consider as an option and might substitute for another product or service. Economists refer to cross-elasticities to reflect the same interchangeability between and among products and services. For example, functional equivalency exists when consumers consider Internet access provided via cable television lines to be an alternative to and no different from Internet access provided via telephone lines.
2. Telecommunications Act of 1996, 104 P.L. 104, 110 Stat. 56, *codified at* 47 U.S.C. §151 *et seq.*
3. Regulatory lag has been defined as "the general delay in the responses of regulators to changes in cost or market conditions." Robert W. Crandall and J. Gregory Sidak, "Competition and Regulatory Policies for Interactive Broadband Networks," 68 S. Cal. L. Rev. 1203, 1220 (1995).
4. In *MCI Telecommunications 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* *American Tel. & Tel. Co. v. FCC*, 978 F.2d 727 (D.C. Cir.1992), *aff'd sub nom.* *MCI Telecommunications Corp. v. American Tel. & Tel. Co.*, 512 U.S. 218, 114 S.Ct. 2223, 129 L.Ed.2d 182 (1994)(the FCC could not suspend (permissively or mandatorily) the tariff filing obligations for interexchange carriers, whether they had market power or not). With enactment of the Telecommunications Act of 1996, *see* 47 U.S.C. § 160(a), the FCC now has a legislative mandate to dismantle fundamental regulatory requirements where doing so would serve the public interest. *See also* *MCI Worldcom, Inc. v. FCC*, 209 F.3d 760 (D.C. Cir. 2000).

5. 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. 47 U.S.C. §254(d)(1999). *See also* 47 U.S.C. §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 Service Corp. v. F.C.C., 120 S.Ct. 2214, 68 U.S.L.W. 3496 (U.S. Jun 05, 2000) (NO. 99-1244).
6. *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).
7. Both the FCC and state regulatory commission have allowed carriers to price some services on the perceived value consumers accrue. For example, some local exchange telephone service rates have increased as a 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.” Federal Communications Commission, “FCC Releases Semiannual Study on Telephone Trends,” 1991 FCC LEXIS 4305 at *10 (August 7, 1991).
8. 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 rate making policies, which may include cross-subsidies to local exchange service, as opposed to actual cost of service differences.
9. 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.*, No. 3, 221-233 (April 1993); Rob Frieden, “Accounting Rates: The Business of International Telecommunications and the Incentive to Cheat,” 43 *Fed. Com. L. J.* 111-139 (April 1991).
10. The Telecommunications Act of 1996 and pre-existing FCC regulations differentiate the terms and conditions for interconnection between carriers as opposed to customer-carrier interconnection. The Telecommunications 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). End-users and interexchange (“long distance”) carriers must pay higher “access charges.”
11. 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), CC Docket No. 78-371, Report and Order, 71 FCC 2d 440 (1979); *on recon.*, 93 FCC 2d 739 (1983), *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 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, CC Docket No. 95-185, 11 FCC Rcd. 5020, (1996)*(proposing reciprocal termination between wireline and wireless carriers, including the possibility of an interim zero termination charge between carriers); *First Report and Order and Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket No. 96-98, 11 FCC Rcd. 15499 (1996), aff'd in part and vacated in part sub nom. Competitive Telecommunications 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., 119 S.Ct. 721 (1999), Order on Reconsideration, 11 FCC Rcd. 13042 (1996), Second Order on Reconsideration, 11 FCC Rcd. 19738 (1996), Third Order on Reconsideration and Further Notice of Proposed Rulemaking, 12 FCC Rcd. 12460 (1997), appeals docketed, Second Further Notice of Proposed Rulemaking, FCC 99-70 (rel. Apr. 16, 1999).*

12. “Captive” long distance callers from hotel rooms, and callers not familiar with “dial around” options for avoiding price gouging for pay phone service recognize the vast price differences for long distance telephone service.
13. 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.” “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 FCC 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.” *Matter of Amendments of Part 69 of the Commission’s Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, Notice of Proposed Rulemaking, 2 FCC Rcd. 4305 (1987)*(proposing to impose access charges on enhanced service lines), *terminated, 3 FCC Rcd. 2631(1988)*(proposal abandoned on ground that despite the apparent discrimination in charges “a period of change and uncertainty” besetting the enhanced services industry justified ongoing exemption from access charge payments). 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.
14. 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 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/WATS Market Structure (Phase I), 93 FCC 2d 241 (1983), modified on recon., 97 FCC 2d 682, further modification on recon., 97 FCC.2d 834, partially aff'd and partially remanded sub nom., Nat’l Ass’n Regl. Util. Comm’rs v. FCC, 737 F.2d 1095 (1984), cert. den., 105 S.Ct. 1224; further modification, 99 FCC.2d 708 (1984), 100 FCC.2d 1222, further recon. den., 102 FCC 2d 899 (1985). See also Investigation of Access and Divestiture Related Tariffs, 101 FCC 2d*

911(1985) *recon. denied*, 102 FCC.2d 503 (1985) Investigation of Access and Divestiture Related Tariffs, 101 FCC 2d 935 (1985).

15. 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* Rob Frieden, "The Impact of Boomerang Boxes and Callback Services on the Accounting Rate Regime," in D. Wedemeyer and R. Nickelson, eds. *Proceedings of the Pacific Telecommunications Council Eighteenth Annual Conference*, pp. 781-790. (Honolulu: Pacific Telecommunications Council, 1996).
16. 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*, FCC 72R-390, 1973 WL 29085 (F.C.C.), 26 Rad. Reg. 2d (P & F)(1973); *but cf.* *Petition of the New York Telephone Company 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 FCC Rcd. 1080 (1990)(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.*, FCC 85-465 (released Aug. 16, 1985), *modified on recon.*, 2 FCC Rcd. 3528, *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 FCC Rcd. 5660 (1989) (establishing definitive jurisdictional policy on lines having mixed intrastate and interstate use).
17. *See* Robert M. Frieden, "Schizophrenia Among Carriers: How Common Carriers and Private Carriers Trade Places," 3 *Mich. Telecom. & Tech. L. Rev.*, (1997), available at <http://www.law.umich.edu/mttlr/>.
18. *See, e.g.*, *The Western Union Tel. Co. v. Esteve Bros.*, 256 U.S. 566 (1921)(exculpatory clauses in common carrier tariff limited liability to refunding cost of carriage despite substantial financial damage resulting from non-delivery of a message transmitted only once). For an examination of exculpation of common carrier liability *see* Christy Cornell Kunin, "Unilateral Tariff Exculpation in the Era of Competitive Telecommunications," 41 *Cath. U. L. Rev.* 907 (Summer, 1992).
19. *See, e.g.*, *Bell System Tariff Offerings*, 46 FCC 2d 413 (1974), *affirmed sub nom.* *Bell Telephone Co. of Pa. v. FCC*, 503 F.2d 1250 (3d Cir. 1974), *cert. denied*, 422 U.S. 1026 *rehearing denied*, 423 U.S. 886 (1975); *MCI Telecommunications Corp. v. FCC*, 580 F.2d 590 *cert. denied*, 439 U.S. 980 (1978) (access to local exchange facilities mandated); *Establishment of Domestic Communications Satellite Facilities*, 22 FCC 2d 86, 97 (1970), *policy reaffirmed*, 34 FCC 2d 9, 64-5, *adopted*, 35 FCC 2d 844, 856 (1972), *on reconsideration*, 38 FCC 2d 665 (1972) (domestic satellite policy mandates non-discriminatory, diverse, and flexible access to domestic satellites and earth station facilities); *accord* *Specialized Common Carrier Services*, 29 FCC 2d 870, 940 (1971) (AT&T required to afford local exchange facility access to competing inter-city carriers), *on reconsideration*, 35 FCC 2d 1106 (1971), *affirmed sub nom.*, *Washington Utilities and Transportation Comm. v. FCC*, 513 F.2d 1192 (9th Cir.), *cert. denied* 423 U.S. 836 (1975). *Use of the Carterfone Device in Message Toll Tel. Serv.*, 13 FCC 2d 420, *recon den.*, 14 FCC 2d 571 (1968)(invalidating local exchange carrier tariff restrictions on interconnection of customer premises equipment with the telephone network); *Telerent Leasing Corp.*, 45 FCC 2d 204 (1974), *aff'd sub nom.* *North Carolina Utilities Commission v. FCC*, 537 F.2d 787 (4th Cir.), *cert.*

Den., 429 U.S. 1027 (1976); Terminal Equipment Registration, 56 FCC 2d 593 (1975), 58 FCC 2d 736 (1976), *aff'd sub nom.*, North Carolina Utilities Commission v. FCC, 552 F.2d 1036 (4th Cir.) *cert. Den.*, 434 U.S. 874 (1977)(preempting the states on the matter of customer premises equipment interconnection with the telephone network).

20. “A firm controlling bottleneck facilities has the ability to impede access of its competitors to those facilities. We must be in a position to contend with this type of potential abuse. We treat control of bottleneck facilities as prima facie evidence of market power requiring detailed regulatory scrutiny. Control of bottleneck facilities is present when a firm or group of firms has sufficient command over some essential commodity or facility in its industry or trade to be able to impede new entrants. Thus bottleneck control describes the structural characteristic of a market that new entrants must either be allowed to share the bottleneck facility or fail.” Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor, CC Docket No. 79-252, First Report and Order, 85 FCC 2d at 36. *See also*, United States v. Terminal Railroad Ass’n, 224 U.S. 383 (1912) (antitrust court ordered railroads to provide competitors equivalent access to bottleneck railway terminal facilities), *appeal after remand*, 236 U.S. 194 (1915); Cellular Communications Systems, 86 FCC 2d 469, 495-96 (1981) (Commission required telephone companies to furnish interconnection to cellular systems upon terms no less favorable than those used by or offered to wireline carriers), *modified*, 89 FCC 2d 58 (1982), *further modified*, 90 FCC 2d 571 (1982); Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services, 59 RR2d 1275 (1986), *clarified*, 2 FCC 2d 2910 (1987), *aff'd on recon.*, 4 FCC Rcd. 2369 (1989) (Commission clarified policies regarding interconnection of cellular and other radio common carrier facilities to landline network); Lincoln Tel. & Tel. Co., 659 F.2d at 1103-06 (court upheld Commission’s order requiring Lincoln to provide interconnection facilities to MCI); MCI Telecommunications Corp. v. FCC, 580 F.2d 590 (D.C. Cir.), *cert. denied*, 439 U.S. 980 (1978); Bell Tel. Co. of Pennsylvania v. FCC, 503 F.2d 1250(3d Cir. 1974), *cert. den.*, 422 U.S. 1026 (1975) *reh. den.*, 423 U.S. 886 (1975).
21. In *Sable Communications, Inc. v. FCC*, 492 U.S. 115 (1989) the Supreme Court upheld a federal statute prohibiting obscene telephone messages, but overturned the statute’s absolute denial of adult access via telecommunication common carriers to indecent messages that are entitled to First Amendment protection.
22. *See* Omnibus Budget Reconciliation Act of 1993 P.L. No. 103-66, 107 Stat. 312 amending the Communications Act of 1934. *inter alia* to revise Section 332 to authorize the FCC to establish regulatory parity among private and common carrier mobile telecommunication services. The revised Section 332 of the Communications Act defines “commercial mobile service” as “any mobile service (as defined in section 3(n)) that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by the Commission.” 1993 Budget Act § 6002(b)(2)(A)(iii), 107 Stat. at 395-96, *codified at* 47 U.S.C. § 332(d)(1); *see also* E. Ashton Johnston, “Regulatory Treatment of Mobile Services: The FCC Attempts to Create Regulatory Symmetry,” 2 *CommLaw Conspectus* 1 (1994).
23. In *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) the United States Supreme Court struck down FCC rules requiring cable television operators to set aside channel capacity for public, educational and government use on grounds that cable television does not constitute common carriage.
24. *See* Rob Frieden, “Contamination of the Common Carrier Concept in Telecommunications,” 19 *Telecom. Pol.*, No. 19, 685-697 (Dec. 1995).
25. *See* *Turner Broadcasting Sys, Inc. v. FCC*, 114 S.Ct. 2445 (1994).

26. Sec. 153(44) defines telecommunications carrier “as a common carrier . . . to the extent that it is engaged in providing telecommunications services.” Sec. 332(c)(1)(A) also requires the FCC to treat as common carriage the provision of commercial mobile services.
27. Section 160(a) of the revised Communications Act orders the FCC to “forbear from applying any regulation or any provision of . . . [the Communications Act] to a telecommunications carrier or telecommunication service” if such regulation is no longer necessary to ensure just, reasonable and nondiscriminatory rates, to safeguard consumers and that such forbearance would serve the public interest.
28. Historically, common carriers have operated as neutral and transparent conduits, neither knowledgeable of the content they carrier, nor legally responsible for the what they carry. The Telecommunications Act of 1996 also provides legal protection for the “Good Samaritan” blocking and screening of offensive material defined as “any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected.” Protection for “Good Samaritan” Blocking and Screening of Offensive Material, 47 U.S.C. § 230(c).
27. *See supra* n.15.
28. AT&T Corp. v. City of Portland, ___ F.3d ___, 2000 West Law 796708 (9th Cir. June 22, 2000)(reversing lower court’s grant of summary judgment that municipal cable television franchising authority may condition transfer of a franchise on the cable operator providing open access to its broadband network to competing ISPs).
29. “[B]ecause the Internet services AT&T provides through @Home cable modem access are not ‘cable services’ under the Communications Act, Portland may not directly regulate them through its franchising authority.” *Id.* 2000 W.L. 796708 at *5.
30. While “the FCC regulates DSL service, a high-speed competitors to cable broadband, as an advanced telecommunications service subject to common carrier obligations,” *Id.* at *8, “the FCC has not subjected cable broadband to any regulation, including common carrier telecommunications regulation.” *id.*
31. Recommendation D.1, Sec. 7.1.1 of the ITU’s International Telegraph and Telephone Consultative Committee Blue Book, Vol. II, Fascicle II.1, General Tariff Principles, Charging and Accounting in International Telecommunications Services, suggested 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.
32. 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.
33. 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.

34. 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. Regulation of International Accounting Rates, Notice of Proposed Rulemaking, 5 FCC Rcd. at 4950.
35. 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. ITT World Communications, Inc., 77 FCC 2d 877 (1980) (order 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).
36. Regulatory Policies and International Telecommunications, CC Docket No. 86-494, Notice of Inquiry, 2 FCC Rcd. 1022 (1987), Report and Order and Supplemental Notice of Inquiry, 4 FCC Rcd. 7387 (1988), *order on reconsideration*, 4 FCC Rcd. 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, CC Docket No. 91-360, Notice of Proposed Rulemaking, 7 FCC Rcd. 577 (1992), Report and Order, FCC 92-463 (rel. Nov. 6, 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).
37. See Cable & Wireless, Inc. DA-1344, Tele. Div. (rel. Dec. 8, 1994); Cable & Wireless, Inc. 8 FCC Rcd. 1664 (Com. Car. Bur. 1993); fONOROLA Corp. and EMI Corp., 7 FCC Rcd. 7312 (1992), *on recon.*, 9 FCC Rcd. 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).
38. Regulation of International Accounting Rates, CC Docket No. 90-337, Phase I, 6 FCC Rcd. 3552 (1991).
39. “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.” K. Cheong and M. Mullins, “International Telephone Service Imbalances,” 15 *Telecommunications Policy* 107, 116 (April, 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 bidirectional 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 116-117 (April, 1991) [hereinafter cited as International Telephone Service Imbalances].

40. Accounting Rate Phase II First Report and Order, 7 FCC Rcd. at 560. “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 para 561.
41. *Id.*
42. 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.
43. 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 and Garth Saloner, Standardization, Compatibility and Innovation,” 16 Rand J. of Economics 70 (Spring, 1985); Michael L. Katz. and Carl Shapiro, “Network Externalities, Competition and Compatibility,” 75 Am. Economic Rev. 424 (1985).
44. 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* Rob Frieden, “Last Days of the Free Ride? The Consequences of Settlement-Based Interconnection for the Internet,” 1 Info, No. 3, 225-238 (June, 1999).
45. *See* Robert Frieden, “Dialing for Dollars: Will the FCC Regulate Internet Telephony?” 23 Rutgers Comp. and Tech. L. J. 47 (1997).
46. “‘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]. Philippine Long Distance Telephone Co. v. International Telecom, Ltd., D/B/A Kallback Direct, File No. E-95-29, Memorandum Opinion and Order, FCC 97-233 at 2, n.10 (rel. July 18, 1997)[hereinafter cited as PLDT Complaint]. *See also* Rob Frieden, “Falling Through the Cracks: International Accounting Rate Reform at the ITU and WTO,” 22 Telecommunications Policy No. 11, 963-975 (December 1998); Rob Frieden, “Without Public Peer: The Potential Regulatory and Universal Service Consequences of Internet Balkanization,” 3 Va. J. L. & Tech. 8 (Fall, 1998) available at <http://vjolt.student.virginia.edu>; Rob Frieden, “The Impact of Call-back and Arbitrage on the Accounting Rate Regime,” 21 Telecommunications Policy 21 No. 9/10, 819-827 (1997); Organisation for Economic Co-Operation and Development, Committee for Information, Computer and Communications Policy, 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 Call-back Report]; Organisation for Economic Co-Operation and Development, Committee for Information, Computer and Communications Policy, New Technologies and Their Impact on the Accounting Rate System, OECD/GD(97)14 (Paris, 1997)[hereinafter cited as 1997 Accounting Rate Study].
47. 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.” Policy Statement on International Accounting Rate Reform. 11 FCC Rcd. 3146 (1996) *citing* Market Entry and Regulation of Foreign-Affiliated Entities, Report and Order, IB Docket No. 95-22, 11 FCC Rcd. 3873 (1995).
48. “Refile or the hubbing of traffic is using one country to collect traffic and switch this traffic to other coun-

tries 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.” 1995 OECD Refile and Call-back Report at 11.

49. 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.” 1997 OECD Accounting Rate Study at 36. On the other hand, “ISR service provision by-passes the international charging and settlements system, and therefor places significant [downward] pressure on accounting rates.” *Id.* at 38.
50. *Id.* at 32.
51. 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* Rob Frieden, *International Telecommunications Handbook* (Norwood, MA: Artech, 1996).
52. *See* International Telecommunication Union, Informal Expert Group on International Settlements, “The Cost of International Telephone Calls,” available at <http://www.itu.ch/intset/dot/dot.htm> (reporting that the per minute cost for routing an international telephone call via an INTELSAT 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 carriers in lower income countries. *See* 1996 International Settlement Policy Rulemaking at ¶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.* at ¶48 In its 1997 International Settlement Policy 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. 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.
53. 1997 OECD Accounting Rate Study at 6.
54. 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 settle-

ment rate prescription did not violate domestic or international law, nor did it impose its jurisdiction extraterritorially. *See Cable and Wireless plc v. FCC*, 166 F.3d 1224 (D.C. Cir. 1999).

55. “[C]ountry direct benefits U.S. [and other] consumers but inflates the settlements deficit by converting foreign-originated traffic into U.S.-billed calls.” Accounting Rate Policy Statement at ¶12.
56. “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 call-back 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.” 1997 Accounting Rate Report and Order at ¶12. Call-back 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.
57. 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.
58. 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.
59. Many facilities-based carriers offer services with lower per minute charges than conventional, up International Direct Distance dialing. While such carriers do not want to cannibalize high margin services, they recognize the need to compete with call-back operators.
60. “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.” Jason Oxman, *The FCC and the Unregulation of the Internet*, Federal Communications Commission, Office of Plans and Policies, OPP Working Paper No. 31, pp. 24-25 (1999) available at <http://www.fcc.gov/opp/workingp.html>.