
TELECOMMUNICATIONS

LISTENING TO VOIP

By JULIAN GEHMAN*

The current debate in Congress and at the FCC over regulating voice over Internet protocol (“VOIP”) highlights the old saying: Fool me once, shame on you, fool me twice, shame on me. Government over-taxed and over-regulated the public telephone network. By contrast, the building blocks of VOIP — unregulated and unruly Internet, Internet protocol and computer operating system — flourished while they were off government’s radar screen. VOIP won the battle for the market, due in large part to over-regulation of the public network. Now, government wants to over-tax and over-regulate VOIP. We should stop government from running VOIP into the ground.

Like other networks, the telephone network is tippy, with the result that the winner may eventually take all. Economists have identified the phenomenon of positive feedback, whereby success breeds greater success and eventually a given standard or product drives out competitors. This causes a market to tip, with the result that the winner takes all. Networks that have strong scale economies and a high degree of standardization are particularly prone to tipping.¹ For the time being, the traditional public switched telephone network (“PSTN” — what we think of when we think of telephones) co-exists along side the newer packet data networks. Nevertheless, economies of scale and standardization are driving the industry to a ubiquitous platform, namely an Internet protocol based packet network, over which travels voice, data, video and whatever else entrepreneurs develop. VOIP is the voice part of the ubiquitous platform; data is already here; and video will follow with broadband penetration and further technical development. The market tipped. The PSTN is slowly sliding off the tipped deck and eventually will join the Titanic at the bottom of the ocean.

Regulatory arbitrage helped to tip the market. Were the cherry picking economics of VOIP not so compelling, the huge market for voice telephony would have remained safely with the PSTN for many more years, or perhaps the market would have tipped a different way.² After all, the U.S. PSTN has been the envy of the world and arguably represents the largest, highest quality and most reliable physical network ever constructed. Viewed from that perspective, the PSTN should have set the standards for computers and the

Internet, and not vice versa. However, government regulated, taxed and stifled the PSTN, causing it to stagnate and making it a fat target for arbitrage. Money talks, and businesses and consumers are walking to cheaper, more innovative telephony.

Telecommunications is one of the most heavily taxed industries in the United States.³ Every government entity conceivable — at the federal, state and local level — has its hand in the pocket of telecom spending. The average effective rate of transaction taxes for telecommunications services is triple that for general businesses nationwide; the total number of taxes imposed on telecommunications companies is more than triple the number imposed on non-telecommunications vendors; and telecommunications companies must contend with significantly more transaction tax bases and taxing jurisdictions than other national companies.⁴ Telephone billing is notoriously confused, with consumers puzzling over inscrutable surcharges and other line items, enterprise customers hiring auditors to make sense of telecommunications invoices, and telecommunications companies drowning in a sea of jurisdictions and tax bases.

Telecommunications is also one of the most heavily regulated industries in the United States. Much of telecom regulation hangs on from the antiquated 1887 law that formed the Interstate Commerce Commission to regulate railroads.⁵ We got rid of the ICC, and deregulated rail, trucking and airlines, all with enormous increase in consumer welfare.⁶ However, in telecommunications, unlike most other industrialized nations, the United States artificially separated local from long distance and erected a façade of LATAs and other bizarre regulatory constructs. The Telecommunications Act of 1996 was supposed to have deregulated telecommunications, but what a disappointment that turned out to be!⁷ Implementation of TA96 brought ever more regulation (including wholesale price regulation), a lot of litigation, and uncertainty that chills investment. Government’s one-two punch of ruinous taxation and strangling economic regulation created an economic incentive to scuttle one of America’s crown jewels, the PSTN. Enter VOIP, stage right.

While politicians fiddled with the PSTN, VOIP stole the march. VOIP evolved over the years and has gained commercial acceptance after several false starts. Its attractiveness rests on the standardization of computer operating systems, and the Internet and Internet protocol. These components developed and achieved wide acceptance, interoperability and standardization mostly free of government taxation and regulation. The government did not seriously intervene in computer operating systems (with its antitrust case against Microsoft) until after the market had tipped to the Windows operating system. Similarly, although the Department of Defense incubated early development of the Internet, bi-partisan government policy has been to forego taxation and economic regulation of the Internet in order to encourage its development and widespread acceptance.⁸ These building blocks to VOIP developed in a messy way typical of the free market with many failed ventures. Nevertheless, this messiness was phenomenally successful, with the result that computer and Internet usage grew like kudzu and literally swarmed the insular, and highly regulated and taxed PSTN. Now, there seem to be more computers than telephones, and email seems to be almost more indispensable than a landline telephone. At some point, a critical mass of Internet protocol devices combined with the enormous margins available from regulatory arbitrage to produce the economic incentive to develop VOIP into a commercial product.

Now that VOIP has won, traffic eventually will migrate from traditional telephony to VOIP. Consequently, it is proposed that the same ruinous telephone taxation and regulation be transplanted on to VOIP in order to make up for the projected, reduced tax and surcharge revenues from the PSTN. There is something wrong with this picture: government wants to kill the VOIP goose laying golden eggs just as it did with the PSTN.

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Footnotes

¹ Carl Shapiro and Hal R. Varian, *Information Rules*, Harvard Business School Press (1999), 173-225.

² See, e.g., Ulysses Black, *Voice Over IP*, 2d ed., Prentiss Hall (2002), 4-6 (citing regulatory arbitrage as being responsible for making a profitable business case for VOIP). Profit margin that resulted from regulatory arbitrage during the service's unregulated days provided the

economic incentive to develop VOIP to a carrier grade voice service. Once so developed, VOIP undoubtedly will displace the PSTN via the network tipping dynamic described above.

³ See Telecommunications Task Force of the Council On State Taxation, 2001 State Study and Report on Telecommunications Taxation, Bureau of National Affairs Special Report, vol. 9 no. 2 (Feb. 22, 2002) ("COST Study"); Understanding Telecom Taxes: A Symposium, Progress and Freedom Foundation, Progress On Point, Release 7.8 (May 2000), 2, at <http://www.pff.org/publications/communications/pop7.8telecomtaxessymposium.pdf> (accessed Aug. 9, 2004) (citing statistics that one half of U.S. households pay at least 20% of the total bill for telecommunications taxes).

⁴ COST Study, *supra*, n4. The COST Study estimates the average effective rate of transaction taxes for telecommunications services at 16.9%, compared to 6.0% for general businesses nationwide. *Id.*, S-4. The COST Study may understate the case by underestimating the size of federal taxes and surcharges (COST Study attributes a 4% federal rate while federal universal service is approximately 9% and federal excise tax an additional 3%).

⁵ Peyton L. Wynns, *The Limits of Economic Regulation: The U.S. Experience*, International Bureau Working Paper Series, IB Working Paper No. 2, Federal Communications Commission (June 2004), 3, at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-248597A1.pdf (accessed Aug. 9, 2004).

⁶ *Id.* 3-10.

⁷ See, e.g., Testimony of Raymond L. Gifford, President, The Progress & Freedom Foundation, U.S. Senate Committee on Commerce, Science, and Transportation "Telecommunications Policy: A Look Ahead" (April 28, 2004), 1-2, at <http://www.pff.org/issues/communications/testimony/042804giffordtestimony.pdf> (accessed Aug. 9, 2004) (terminating the Telecommunications Act of 1996 a "qualified failure," qualified only because the act did not regulate wireless and cable, which have prospered under less regulation).

⁸ Promoting Innovation and Competitiveness, President Bush's Technology Agenda, at http://www.whitehouse.gov/infocus/technology/economic_policy200404/chap4.html (accessed Aug. 9, 2004); Jeri Clausing, *Internet Study Stresses Self-Regulation*, New York Times (Nov. 30, 1998) at <http://www.nytimes.com/library/tech/98/11/biztech/articles/30net.html> (accessed Aug. 9, 2004).