

Poking Holes in the Regulatory Landscape: Harnessing the Disruptive Power of Voice-over-IP Technology

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Whack-a-Mole is a zany arcade game that can be found on a few boardwalks and midways around the country, wedged between the much flashier electronic video games. Children and adults alike delight in attempting to smack down a mechanical mole named “Holey Moley” as he randomly pops out of his many holes, and quickly ducks into the safety of his underground den.

Curiously, Holey Moley comes to mind as I survey the emerging debate over the regulation of Voice-over-Internet Protocol (VoIP). Yet another innovative technology has tunneled through the manicured landscape of telecom regulation unannounced. Grounds keepers are now gathering to deliberate whether to exterminate the varmint or to somehow weave its damage into their intricate handiwork.

Recently the FCC, and several states before it, grasped the regulatory thistle created by this technology when it opened an inquiry into VoIP. U.S. regulators have been able to dodge the issues raised by VoIP as long as technical weaknesses limited its commercial potential. The technology has advanced to the stage where it now threatens to be the next “disruptive technology” of telecommunications – one that could replace circuit-switched delivery of traditional services and to give birth to a stream of innovative applications.

Events have unfolded much differently in the area of international telecommunications. In the 1990s, several foreign governments came down decisively on the use of VoIP for international services. While their policies show little consistency – ranging from outright ban to explicit subsidization – it is instructive that regulatory action first occurred in these markets. The huge price-cost discrepancies erected by the international settlements process offered arbitrage opportunities to carriers using innovate technologies including VoIP. Over time, the competition that materialized helped close some of these gaps and it is safe to say that, today, the structure of international rates is better aligned with economic reality as a result.

The valuable lesson of this experience is that new technologies enable competition that expose distortions in the regulatory fabric – whether well-intentioned cross-subsidies or brazen attempts to redistribute rents – and proceed to instigate reform of those policies that caused the distortions in the first place. *If allowed to do so, VoIP has the potential to overhaul domestic regulation of telecom markets in this same way.*

The current inquiries will begin, as they should, by questioning whether services using VoIP technology should be regulated at all. Economists approach this question by asking whether VoIP services have demand and supply characteristics that would likely rob consumers of the full potential of the technology. The presumption is that, when those characteristics are absent, the market trumps regulation as a way to organize provision of these services. In fact, it is hard to see how VoIP as a network application would result in market power, the usual source of consumer harm. Services using VoIP have many close substitutes and the supply of those services does not exhibit scale and scope economies that are unusual relative to other telecommunications services.

If doubts regarding the efficacy of the market mechanism persist, as I expect they will, the analysis should proceed by first articulating clearly what policy would be imposed in its place. Before counting the benefits that may flow from any regulation of VoIP, policy makers should consider only “incentive compatible” outcomes, i.e., when consumers and firms all behave in ways that serve their self-interest. In particular, policy needs to obey the common-sense principle of economics that, if an activity is taxed, less of it will occur – along with its corollary, a taxed activity will seek out more hospitable locations. Attempts to “tax” services using VoIP are likely to be futile as they, like Holey Moley, will simply pop up elsewhere. This point was made at a recent FCC hearing that domestic regulation of VoIP could very well drive VoIP services off shore.

The ease with which VoIP technology can re-locate derives from its cross-platform nature. Voice and other content sent over Internet Protocol are simply applications that ride on a standardized transport layer of physical networks of all kinds – copper pair, coaxial cable, optical fiber and terrestrial wireless and satellite. In recent months, each of the four RBOCs, all three of the major long distance carriers, and the largest cable operators have announced plans to offer VoIP services to business and/or residential customers within the year. Already most of these providers have been transporting voice over their packet networks to some extent.

The portability of VoIP technology underscores the need for parity in treatment across services, platforms, and networks. “Regulatory parity” has become a common refrain in today’s increasingly crowded telecommunications marketplace. It is especially critical in the case of VoIP, however, since its deployment is so responsive to financial incentives at the same time the technology holds so much promise of long-run consumer benefits. The great danger is that regulators will attempt to achieve parity by imposing existing regulations applied to traditional telecom services on new services using VoIP technology. This move could choke off use of this technology by both incumbents and entrants, and send it off to elsewhere.

The questions addressed in the present policy debate need to be re-framed. Rather than asking if and how to regulate VoIP services, it should ask how this technology can be employed to identify regulations that are now, or will soon be, unnecessary or harmful to consumer welfare. Of course, revisiting old regulations is not much fun – certainly not as much fun as crafting new policy for new technologies. It is downright painful to contemplate re-opening issues like access charges, the funding of universal service and E911, even if these rules themselves continue to evolve. But therein lies some of the great benefits that technologies like VoIP offer: they create the opportunity and the capability to purge the regulatory system of obsolete rules.

The FCC and the states should be commended as they embark on their policy debates over VoIP. I wish them well protecting those processes from special interests seeking to secure rents from this promising technology. In all likelihood, the outcome of these proceedings will in many cases be a call to “exempt” VoIP from regulation, if only temporarily. While I would agree with such a move, I fear that it sends the implicit message that the preferred long-run policy is regulation. Far more importantly, however, it would represent the loss of a much greater opportunity. The industry, and the U.S. economy, would be better served by enlisting the forces enabled by these technologies to identify flaws in the current regulatory system and to dismantle those parts that are no longer justified. The alternative of the *status quo* is a seemingly endless, and ultimately futile, defense of the current system, with regulators whacking the technological moles that unexpectedly and incessantly poke holes in their regulatory landscape.