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Internet Telephones: Hanging up on Regulation?

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Executive Summary

The Federal Communications Commission has requested comments on the regulation of voice telephone services delivered over the Internet, dubbed "VoIP" or Voice over Internet Protocol. This paper examines whether there is a need to regulate VoIP. We conclude that there is no economic rationale for regulating VoIP and that consumers will likely be worse off if VoIP is regulated. Furthermore, the emergence of new technologies, such as VoIP, is rapidly eroding the rationale for continuing to regulate local telephone services.

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Telephones

Hanging up on Regulation?

By Robert W. Crandall, Robert W. Hahn, Robert E. Litan and Scott Wallsten

The first half of 2004 saw a flurry of activity involving ordinary voice telephone service delivered over the Internet – the technology known as Voice over Internet Protocol, or simply VoIP. Indeed, as of April, one company (Vonage) had signed up more than 100,000 VoIP customers. Vonage's success has attracted the attention of AT&T, Verizon, Qwest and the cable companies, which are all racing to offer VoIP across the country.

The wild card in this birth of a new industry is the response of the telecommunications regulators, who have been promoting local phone competition under a mandate from Congress for the past eight years while simultaneously distorting free-market outcomes by subsidizing various telecom constituencies. Because the subsidies are funded through taxes on traditional telephone service, Internet telephony threatens to reduce the revenues for such subsidies and may therefore represent more competition than regulators will tolerate.

Policymakers are deeply divided on the issue. The chairman of the Federal Communications Commission, Michael Powell, has concluded that the burden of the argument for regulating VoIP "should be on those who want regulations extended." Bills recently introduced by Republicans in both the House and Senate would bar states from regulating VoIP and would limit the types of regulations the feds could impose on it. Meanwhile, the FCC is embroiled in a debate over how or whether to regulate VoIP, while state regulators, concerned about their ability to raise revenues through telecommunications taxes, are pushing for the right to regulate it.

A close look suggests there is no solid economic rationale for regulating VoIP at either the federal or state levels. In fact, the explosion of wireless telephone service, along with the emergence of new technologies like VoIP, erodes the economic rationale for regulating voice telephony of any form.

MICHAEL SIPE

DOMINANT? WHO'S DOMINANT?

For decades, the states and the FCC regulated telephones under the so-called dominant-carrier standard. This was based on the premise that if a phone company dominates its market, i.e., if it has market power, consumers have to be protected from its ability to raise prices, deny service, or degrade quality. That's why AT&T's long distance service was regulated until 1995, and why most of the Baby Bells' local services are still regulated.

But the dominance these phone companies once enjoyed has been seriously eroded by both technology and new sources of competititon. Cellular telephone service began in 1983, eventually providing a large share of the country's phone subscribers with at least one choice other than the local fixed-wire company. Long distance competition began in earnest with the breakup of AT&T in 1984, along with the rapid growth of MCI, Sprint and later, WorldCom. A number of new carriers entered the market after the government auctioned a large swath of new spectrum for cell service in 1996. And while most of the competition has come from these new cellphone entrants, the 1996 Telecommunications Act also allowed a number of new telephone companies to provide local telephone service. Even some cable television companies began to offer telephone service after 1996.

Today, most consumers can buy telephone service from their traditional fixed-wire carrier (generally a Baby Bell), one of six national cellular carriers, one of the three major long distance companies, one of the new entrants, or, in some places, their cable television providers. Each of these carriers offers a variety of local and long distance plans, along with bundles of local, long distance and other services, like high-speed Internet access. There are now more than 148 million cellphone subscribers in the United States. And thanks to the large number of off-peak minutes available at no extra charge in many cellular packages, the average subscriber uses a cellphone more than a fixed-line telephone. Thus, it is unclear that any carriers are "dominant" in offering telephone service.

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ENTER VOIP

Given this expanding array of choices and the competitive pressure placed on all telephone services, revenues from non-wireless telephone are declining steadily. Consumers can buy all the residential telephone service they want – that is, unlimited local and long distance calling – for $50 per month or less. Why, then, would anyone want to offer voice calling over the Internet? Because it is a cheaper way to deliver the service.

VoIP is very inexpensive to provide because it is delivered by high-speed Internet. Simply by adding a relatively modest software program to their computers or by plugging a small device into their Internet connections, consumers can have voice calls delivered over cable or digitally enhanced copper telephone wires to ordinary handsets located anywhere near a cable jack. Most of the cost of traditional telephone service is the local network's delivery of the call. Once a call is switched from a local telephone company to a long distance carrier, it costs only a small fraction of a cent per minute to deliver it to another local telephone company – even if the call recipient is halfway around the world. If consumers can avoid the costs of using the switching capacity of local networks, the cost of a call falls dramatically.

For years, VoIP was ignored by the market because of its poor signal quality. The Internet was not designed to deliver real-time voice services. Delays in delivering the Internet's millions of tiny packets of data created interruptions and distortions. But these technical problems are being solved rapidly.

In addition, as the number of households with always-on high-speed Internet service grows, the potential market for transmitting voice over the Internet grows with it. Today, about one household in five operates in the Internet fast lane, and the number is expanding rapidly.

The economics underlying VoIP are solid. VoIP can be delivered at a fraction of the price of the new unlimited bundled services, perhaps for as little as $20 per month. Therefore, if the companies offering this service can identify households that have high-speed Internet connections and bring in new customers at a cost of, say, $200 per household, they can expect to make money by offering the service at $30 or $35 a month if customers are reasonably loyal. No one knows whether consumers will find the current quality of VoIP acceptable, but it is safe to say that traditional telephone companies and their regulators are worried.

WHY REGULATE VOIP?

The market in which Internet telephony operates is already very competitive and will become even more competitive once VoIP joins the mainstream. Yet some state regulators, led by Minnesota's, have already tried to regulate VoIP, and the FCC has launched an inquiry into a parallel endeavor. No objective observer could conclude that these new companies are dominant in the delivery of telephony. As noted above, Vonage, the largest VoIP carrier, has about 100,000 subscribers, while wireless companies have 148 million subscribers and fixed-wire telephone companies maintain 180 million subscriber lines.

Unfortunately, though, telephone regulation involves much more than efforts to limit market power. Indeed, regulators have been instructed by Congress and state legislatures to advance social agendas under the cover of dominant-carrier regulation.

- They keep rural rates for access to the network low by doling out benefits to rural carriers.
- They make sure that the cost of a call on low-density routes is no higher than that for a call on dense routes, where the average overhead per call is much lower.
- They subsidize low-income telephone subscribers.
- They tax telephone revenues to support communications services for schools, libraries and rural health facilities.
- They encourage local competition by allowing new (post-1996) companies to use the older, fixed-line companies' facilities at prices below the latter's embedded costs.

Aggressive competition from new services like VoIP threatens this entire superstructure of social policy disguised as monopoly regulation, because it reduces the cash that regulators can shift.

THE REGULATORS' DILEMMA

Regulators have no legislative authority to second-guess the rates set by the six national wireless carriers. As a result, these companies have been competing aggressively with fixed-wire telephone companies, taking away at least 30 percent of their long distance traffic and perhaps 3 to 5 percent of their local subscribers in the past four years. Cable companies are also largely unregulated, and, by no coincidence, have aggressively marketed new digital video services and broadband Internet access. Soon, however, every cable company could become a major competitor in telephony, probably through VoIP.

Can the regulators let them drive down telephone rates the way wireless companies have driven down long distance rates? If they do, they surely will have to deregulate the dominant local carriers and watch as competition aligns telephone rates with costs.

The result would be an increase in fixed-line local residential charges in rural areas and a decline in the rates charged to virtually all others. It would also mean rapid erosion of the interstate revenue base, now used to subsidize low income households, high-cost rural telephone companies, schools, libraries and rural health facilities.

A BETTER POLICY?

A variety of interests will probably want to bring VoIP under the regulatory tent. Competing fixed-wire carriers will surely argue that if they are regulated and taxed under the current regulatory framework, competitors offering VoIP should be subject to the same rules. The wireless carriers will fashion similar arguments for extending the regulatory taxes to VoIP because interstate wireless revenues are currently taxed heavily (but not regulated). Others will contend that VoIP must be regulated so that it meets the same quality standards as other voice services, including emergency 911 service, standby power during electrical power failures, and access for wiretapping by police and national security authorities.

The argument against extending such regulation is more convincing. Jerry Hausman of MIT has estimated that taxes on interstate and international telephone revenues that are used to support low-income subscribers, high-cost carriers, schools, libraries and rural health facilities, are about three times more costly to the economy than the same sums would be if they were raised through general income or consumption taxes. If regulators were deprived of the ability to carry out these redistributive social policies because they could no longer contend that any carrier is dominant, telephone rates would decline substantially and consumers would benefit enormously – and probably by more than their estimated cost, because of the salutary effects on investment and innovation.

Such deregulation would free companies to invest in new technologies without the fear that regulators would expropriate the gains from successful innovation. So even if VoIP does not turn out to be a smashing success (which is certainly possible) some other technology that is faster, better and cheaper would be more likely to emerge.

If legislators want to continue to subsidize classes of carriers or consumers, they could fund the subsidies from other revenue sources at a far lower cost to the economy. Note that these subsidies would be on-budget – and therefore more visible to voters. Some might even ask if the subsidies are worth their cost.

A FINAL WORD

With the emergence of productive new technologies, the rationale for continuing to regulate local telephone service is rapidly disappearing. But there will always be pressure to regulate, because the losers from new technologies have incentives to use the political process to limit their losses, while regulators and legislators are loath to give up the right to divvy up the spoils. As economists, we can only point out that the social costs of regulating services like VoIP are likely to be substantial. The trick to getting rid of inefficient regulation is making these costs sufficiently visible to force politicians and regulators to pay attention to them.