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VOICE OVER INTERNET PROTOCOL: NEW TELEPHONE SERVICE POSES REGULATORY CHALLENGES

Telephone service choices are becoming more complex. Wireless telephony is already widely used, but consumers can now receive telephone service by using their broadband computer modems. Should the federal and state governments regulate this service in much the same way as standard telephone service, or is a different approach appropriate? Several states have begun to address the regulatory issues, but the federal government may end up preempting state authority. Wisconsin's Public Service Commission continues to study the issue, and the 2003 Wisconsin Legislature considered but did not enact legislation on VoIP.

WHAT IS VOIP?

Using the Internet to make telephone calls is called Voice over Internet Protocol (VoIP), also known as Internet telephony or Internet voice. VoIP can take different forms, but all involve converting sound into encoded data packets transmitted over the Internet's infrastructure rather than over conventional analogue telephone lines. The data are converted back into sound at the other end of the connection.

During the 1990s some computer enthusiasts used VoIP to avoid long distance charges for some calls by calling computer-to-computer rather than by telephone to others who used the same kind of software. Sound quality could be inconsistent, but the calls were free. Today, the technology has improved and many companies are promoting VoIP to broadband Internet subscribers as a potentially less expensive alternative to conventional long distance and local telephone companies. With the introduction of telephone adapters for VoIP, a

caller can place calls with a telephone as well as with a computer. Furthermore, the VoIP subscriber can make calls with the same telephone number from almost any broadband connection in the world. VoIP subscribers are also no longer limited to calling other Internet voice users, but, depending on the service purchased, can also reach conventional telephone subscribers or anyone else with a telephone number. Some estimates suggest that about one million people currently use VoIP in the United States.

VoIP service is not, however, without the potential for problems. Because it requires a functioning computer modem and Internet service to function, a VoIP telephone customer could be without the ability to make or receive calls during a power outage or an Internet Service Provider's (ISP) service interruption. Because VoIP uses the Internet to transmit calls, it could be subject to virus, spam, or denial of service attacks. 911 service with VoIP could be a challenge if the 911 system cannot identify the location of the emergency call. Law enforcement officials are concerned that

VoIP will hinder their wiretapping capabilities in investigating suspected criminal activity. Hearing impaired users are concerned that VoIP companies are not required to provide appropriate services.

Nonetheless, as VoIP develops to the point that it can substitute for conventional telephone service for an increasing number of users, the growth of this new industry raises a number of technological, economic, and regulatory questions that the federal government and state governments are only beginning to address.

REGULATORY ISSUES

The heart of the regulatory debate over VoIP is how to define the service and its underlying technology. Federal law distinguishes between "telecommunications services" and "information services." Standard telephone service and other telecommunications services are subject to state and federal regulation. The Internet is considered an "information service," and is generally not subject to regulation. VoIP falls in the grey area between the two. It functions as telephone service and many VoIP providers openly advertise it as telephone service to replace that of consumers' current telephone companies, but the manner of transmission is as addressed data packets over the Internet, rather than over analogue telephone lines, until it intersects with the public switched telephone network (PSTN).

VoIP companies and other opponents of VoIP regulation argue that regulation will hinder development of the emerging technology because it imposes regulation from a different era on their services. Some standard telephone companies (many of which are employing digital technology for some services) and others contend that exempting VoIP from the regulations and taxation pertaining to telephone companies violates the principle of a level playing field by

giving VoIP providers the unfair advantage of a free-ride as they compete with each other for customers. Others note that the early development of the Internet itself, on which VoIP is based, was aided by government regulation and federal funding.

The Federal Communications Commission (FCC), in February 2004, has already ruled that "pure" VoIP services, calls made from computer-to-computer, are information services exempt from state regulation. The more difficult question is the treatment of computer-to-telephone and telephone-to-telephone VoIP services. The FCC hosted a forum in December 2003 to receive testimony on the issue. The public comment period ended in July, and the FCC expects to make some decisions late in 2004.

STATE REGULATION AND TAXATION

State governments are concerned that a major shift of telephone business from traditional telephone networks to unregulated Internet voice services will result in a severe reduction in the tax revenues that fund 911 emergency services and programs such as universal service or school and library technology funds ("e-rate" fund). Some states have begun to address the issue, generally arguing that functionally equivalent services should be treated equally from a regulatory and tax perspective, regardless of the specific technology used to provide the end product. Any future state regulation, however, may be limited by federal action if the FCC decides that the Internet component of the service means that federal jurisdiction preempts state action. A number of states have begun to study VoIP more carefully, and a few have emerged as early leaders.

Wisconsin. In September 2003 the Wisconsin Public Service Commission (PSC) informed a California company that its Internet voice service needed to receive certification, as would any other telephone company,

to be able to provide voice calling services legally in the state. Without certification, the company's bills for voice calls in Wisconsin would be void. The PSC is still investigating possible regulatory approaches for VoIP.

Companion bills introduced in the Wisconsin Legislature during the 2003-04 session, Assembly Bill 672 and Senate Bill 302, addressed possible regulation of VoIP by exempting broadband service from state and local regulation. The bills, as introduced, excluded broadband service (defined to include voice conveyance) from the definition of a "telecommunications service." The substitute amendments, however, defined "broadband service" as a telecommunications service, but excluded it from the telecommunications services that are subject to regulation. Both bills failed to pass.

Minnesota. Minnesota was the first state to take on the issue directly. In July 2003 the Minnesota Department of Commerce filed a complaint with the Minnesota Public Utilities Commission that Vonage Holdings Corporation (one of the major VoIP companies) was offering local exchange service and long distance telephone services without first obtaining the certificate of authority required by Minnesota statutes, that it failed to provide adequate 911 service or pay any of the required 911 fees, and that it had not filed Commission-approved rates for services. Although Minnesota statutes define what a "telephone company" is, they do not, specifically define what a "telephone service" is.

Focusing on the manner in which service is provided rather than the function of the service, Vonage countered that it was offering an "information service" rather than "telephone service" and was, therefore, not subject to the laws that apply to telephone services.

The Commission accepted public comments and heard the case in August 2003.

In its September ruling, the Commission noted that Vonage offers unlimited local and long distance calling, Caller ID, Call Waiting, and Voicemail services and advertises that it provides all-inclusive phone service that can replace a customer's current telephone company service. Although the customer must have an ISP and computer modem, calls are made and received on ordinary touch-tone telephones and the service intersects with the PSTN. Because the service is functionally equivalent to standard telephone service and because the Minnesota Legislature had not exempted VoIP technology from state regulation, it ordered Vonage to comply with Minnesota statutes and rules pertaining to telephone service and to pay 911 fees for the period it served Minnesota customers but did not pay fees.

Vonage challenged the order and, in October 2003, federal district court judge Michael Davis ruled for Vonage, rejecting the "if it quacks like a duck, it's a duck" argument, calling VoIP an information service, and therefore protected by federal law from state telecommunications regulations. The decision applies only in Minnesota, but may influence future proceedings in other states.

California. The California Public Utilities Commission (CPUC) notified six VoIP providers in September 2003 that they needed to obtain telephone operator business licenses to be able to do business in California, citing the state's Public Utilities Code, which defines a telephone line "as any asset used to facilitate telephone communication," and also, unlike Minnesota law, specifically defines "telephone service." The CPUC began an investigation into possible VoIP regulations in February 2004, and is expected to be one of the most influential states in establishing a pattern that other states may follow.

Florida. A law enacted in 1985 that taxes businesses that bypass the local telephone net-

work by establishing their own communications networks is reportedly rarely enforced, with only about 10 companies voluntarily paying the tax. The law was originally designed to ensure that such businesses paid the same tax as businesses using the regular telephone system. If this "substitute communication" tax and associated local option taxes were to be enforced on such services – including VoIP – it could bring the state and local governments more than \$1 billion in annual revenues, rather than the current \$600,000. The Florida Senate passed a bill that would have prevented collection of the tax until 2006, but the Florida House of Representatives refused to act on the bill before the close of the legislative session in April 2004. The Florida Department of Revenue will now develop rules for the enforcement of the tax.

New York. In May 2004 the New York State Public Service Commission ruled that VoIP provider Vonage Holdings is a telephone company and as such is, therefore, subject to state regulation. In announcing its decision, however, the commission noted that it did not intend regulation to interfere with the "deployment of new technologies."

FEDERAL LEGISLATION

The Senate Commerce, Science, and Transportation Committee recommended in July 2004 an amended version of a bill, S.2281, sponsored by Sen. John Sununu (R-NH) and called the VoIP Regulatory Freedom Act of 2004, that proposes to exempt VoIP from most regulation applicable to other telephone companies. The original bill gave the federal government sole authority to regulate VoIP, prohibiting state involvement. It required a universal service fee and law enforcement access, but made 911 and disability access voluntary subjects for the industry. Amendments to the bill would give the states the authority to have VoIP companies provide

911 services, contribute to state universal service programs, and pay intrastate access charges to other telecommunications providers.

A similar bill in the House of Representatives, H.R.4757, introduced by Rep. Cliff Stearns (R-FL), has not received approval from the House Subcommittee on Telecommunications and the Internet. The proposed Advanced Internet Communications Services Act of 2004, would establish a new form of service, called Advanced Internet Communications Services as a way around the question of whether VoIP is a telecommunications service or an information service. The bill would give the FCC exclusive regulatory authority, but neither the FCC nor the states would be able to regulate rates or terms of service. The bill does include requirements for universal service funding, 911 service, disability access, and compensation to the affected telephone companies when a VoIP user calls a traditional telephone user on the PSTN.

CANADA

Canada appears to be taking a different approach from that of the FCC to date in the United States.

In April 2004, the Canadian Radio-television and Telecommunications Commission (CRTC) released a nonbinding decision that any company supplying subscribers with 10-digit telephone numbers and allowing them to dial and receive calls on traditional equipment would be subject to the same regulations as other telephone companies. The CRTC found that Internet and traditional switching networks have common functional characteristics that ought to be "subject to the same regulatory framework for local competition."