

## **Voice over Internet Protocol (VoIP): *Just another Internet Application***

Using the Internet for voice conversations is just a natural next step in the migration of communications to the Internet. The trend started with e-mail, the first Killer App on the Internet. Then came instant text messaging, now voice calls, and next we'll be conferencing via voice and video from multiple IP-enabled devices. It's an irresistible trend made possible by technology and infrastructure investments, and driven by compelling economics.

### **Why all the buzz about VoIP?**

Since the early 1990s, e-mail has been displacing regular mail for written communications. Similarly, cellular phones are displacing land-line telephones, to the point where some consumers are pulling the plug on their land-line phone service. Neither of these trends has caused significant public policy concerns, since they are the natural outcome of new technology and market forces. But the notion that voice could migrate from the legacy phone system to the Internet has captured the attention of telecom regulators, tax commissioners, and lawmakers.

### **VoIP: an Internet application that had to happen.**

Instant text messaging applications like Microsoft Messenger, Yahoo Messenger, ICQ, and AOL Instant Messenger are all forerunners of voice over IP. In fact, these text messaging products already allow voice conversations, so long as both users have either a computer headset or an IP telephone handset. VoIP software is an incremental evolution from text messaging, adding just the capability to sample and digitize voices picked up by the computer's microphone. Once that capability is in place, it's easy to add services such as contact management, directory assistance, call forwarding, voicemail, and conference calling.

### **How can governments tax something that's free?**

Text messaging software is widely provided for free, and the text packets are carried via internet access services paid for by users on both ends of the conversation. It's the same with VoIP conversations—the creators of KaZaa have spawned Skype, a free peer-to-peer VoIP service that's growing by 1.2 million users every month. With no separate charge for using peer-to-peer text or voice messaging, there's no billing amount on which to base telecom taxes sought by state and local governments. That's why tax commissioners everywhere are anxious about VoIP.

### **No good at all if you can't complete the call**

However, not everyone we want to talk to is continuously connected to the Internet. To complete a VoIP call to or from a land line or mobile number, VoIP services have to interconnect with the public switched telephone network (PSTN), which is already extensively regulated and taxed. The resulting interconnect charges have to be covered somehow, whether by monthly fees, per-call charges, bundled with access, or through advertising-based business models. VoIP vendor Vonage, for example, provides 500 minutes of U.S. interconnect for just \$15 per month.

### **Public Policy recommendations for VoIP**

- **Renew the moratorium on Internet access taxes.** Big tax burdens on Internet access will hinder VoIP adoption by lower-income Americans and reduce provider investments in broadband infrastructure.
- **Give VoIP providers flexibility to meet requirements for E911, CALEA, and disabled access.** VoIP is fundamentally different than PSTN and cellular in how it makes connections, so regulators should be flexible and patient in allowing vendors to develop innovative technical solutions for these requirements.
- **Reform the contribution and spending mechanisms of the Universal Service Fund.** VoIP can bring low-cost telecom to rural America, but not if USF funds subsidize old technologies. USF reform should reassess funding and consider vouchers to allow consumer choice and encourage competition.
- **Avoid a patchwork of ever-changing state & local regulation.** The surest way to kill a 'killer app' like VoIP is to allow uncertain and inconsistent regulatory and tax regimes at every level of government. Congress and FCC should adopt and maintain a single, coherent federal policy.

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<sup>1</sup> The February 7, 2003 Forrester Brief "The Internet Tax Man Cometh – Who Cares?"  
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