INTERNET LONG-DISTANCE CALLS COST LESS BUT FACE QUALITY PROBLEMS

SO YOU WANT TO FIND SOME COOL NEW way to use the net? You've tried chat rooms, you've played online games, but you're not quite ready for anything like Internet-enabled remote-surgery? How about free or discounted long distance calls over the net? Have I got your attention?

WHAT IS INTERNET TELEPHONY?

Internet Telephony is the transmission of voice over an IP (Internet protocol) data network. IP is the language by which most of today's data networks (including the Internet) communicate. One of the most interesting aspects of Internet telephony is toll bypass (free long distance!)

At one time the Internet supported only low speed data applications. But the advances in transmission technology aided by compression and error checking algorithms have made possible the transmission of real-time voice. You may hear the terms Internet Telephony, Voice Over IP (VoIP), Voice Over Packet etc. The premise is the same — take a live stream of analog voice, digitize, packetize, and pump it over the net. Internet telephone calls!

Okay, so now you're thinking, "I'm never going to get charged for a long distance call again!" Not so fast! Is anything ever that easy? Yes, you can place free long distance calls, but you trade cost for ease of use and quality of service. Also, unless you subscribe to an ITSP (Internet Telephony Service Provider) you can only talk to other people on the Internet.

The advances in transmission technology have made it possible to transmit real-time voice.

QUALITY OF SERVICE

The biggest challenge to sending real-time voice over the Internet is quality of service. IP networks do not guarantee service and therefore delays are common and packets do get lost. Delays during our normal web-browsing activities may be tolerable — you might have to watch the meteor shower on the Netscape logo for a few extra seconds, but the data eventually appears. If these delays were to occur during a phone call, the nuances of these pauses might be misconstrued by the other party.

If packets get lost you might miss important pieces of the conversation. Echoes (caused by signal reflection) and jitter (caused by inter-packet timing problems) are other side effects of voice over IP. Typical delays for an Internet call are on the order of up to one second. Aside from quality of service, another challenge is ease of use. To place these free calls you have to configure your PC instead of just picking up the phone and dialing the number, or you may have to use the numeric keypad on your telephone to sign on to your ISP if you are not using a PC.

INTERNET TELEPHONY SERVICE PROVIDERS

A growing number of ITSPs offer lower long distance rates than your traditional long distance companies with qualilty of service somewhere in between the Regional Bell Operating Companies. The advantage of signing up with an ITSP is that calls you place over your PC can be routed to anyone in the world with a phone. The person on the receiving end of the call does not even necessarily know that you are on a PC. (Although quality issues may give you away).

Some vendors now have products on the market that cater to part of the population that doesn't own or want to own a PC, but would still like to save on long distance calls. These vendors sell hardware that connects to your phone and places calls over the Internet sans PC. You still have to have an ISP (Internet service provider) and go through the hassle of configuring the call setup.

BROWSE FOR PRODUCTS

An astounding number of products on the Web address Internet telephony. I found the following samples while browsing.

Free Tel offers a free functional Internet Telephony software (cost supported by advertising). This might be a good start for those wanting a quick and cheap introduction. You can download Free Tel at http://www.freetel.com/

If you don't have a PC and are still interested in trying to save on long distance, check out the following product reviews: http://www.cnet.com/Content/Reviews/JustIn/Items/0,118,345,00.html

For an example of an ITSP, check out the following site: http://www.accesspower.com/