

## VoIP Phone Home?

The movie Extra Terrestrial (ET) coined the phrase "phone home" and each year Americans look for more cost effective ways to do just that. The past 10 years have seen the development and growing popularity of Voice over Internet Protocol (VoIP) technologies to achieve cost savings over the traditional circuit-switched telephone networks. The two dominant technologies used for VoIP are: (1) the Session Initiation Protocol (SIP) and (2) Peer-2-Peer (P2P). For business and educational institutions SIP VoIP solutions have produced substantial savings. For home voice users, however, SIP VoIP is still value challenged. A typical circuit-switched landline phone costs about \$19.95 per month (plus tax). The good old American landline phone should be graphically depicted beside the word "reliable" in the dictionary. Not only does it keep working, even when all electrical power fails, but it can even provide you with a light to dial with. At \$15 dollars per month SIP VoIP is still value challenged due to the lack of full support for E9-1-1 emergency services and of course the reliability issues inherent with using a real time application over a "best effort" network like today's Internet. Although few VoIP articles still reference Internet Request For Comments (RFC) 3714 "IAB Concerns Regarding Congestion Control," the technical challenges associated with VoIP are widely known. Further, even with the recent dubious edict by the Federal Communications Commission (FCC) that VoIP service providers will provision support for E9-1-1 within 90 days, this still leaves the reliability issues unresolved. The use of adaptive rate CODECs to prevent congestion collapse is a swell idea if it applies to my neighbor's service but not my own. Using adaptive rate CODECs to elicit voluntary user preemption has no appeal in the modern world. Technology is supposed to be getting better and it is clearly not better that users receive disconnects or degraded service quality in order to constrain network bandwidth consumption. Quality of Service (QoS) has been the four letter word of the Internet for a very long time. Yet, we know that real time applications such as video and voice are a mismatch for "best effort" service models. Cost savings are important, but not if they require users to accept backward technology leaps. After 9/11 the United States should have begun standardization efforts to insure that VoIP QoS levels would be equivalent to circuit-switched networks, especially where emergency E9-1-1 calls are concerned. The recent FCC order only requires that E9-1-1 call center traffic be properly routed. It does nothing to insure QoS of the connection once the call is completed. As for VoIP in the home, there is too little incentive for savvy consumers to part with more of their hard earned communications dollars for an industry offering that simply does not meet the needs of the user. Until something concrete can be done to move SIP VoIP forward, service based on P2P such as Skype seems to be the only sensible choice on the kitchen table. Why should home users pay \$15 or more per month for less reliable communications than they already have with their land line? Skype gives users the ability to experience "best effort" voice over the Internet for FREE. Could this be the reason why more than 125 million copies of Skype's P2P software has been downloaded? And for the occasions where interconnection with the existing circuit-switched telephone networks is required, Skype offers a very competitive 2 cents per minute interconnection rate. With Skype you can talk for 12 ½ hours interconnected to the phone system for the same cost as a basic rate SIP VoIP service. Until genuine changes are made to SIP VoIP QoS there does not appear to be a convincing or compelling reason today for users to choose anything other than P2P VoIP services such as Skype to render Internet "best effort" home phone services. You can try Skype for FREE by clicking here. Jason Canon has authored numerous technical research papers including: photonic switching, gigabit networking, VoIP E9-1-1 and others. He is an expert author for EzineArticles.com. E-mail: Jason Canon at [jmc@canon.org](mailto:jmc@canon.org). NEW Computer Laptop PC Headphone Headset ...\$0.9931m NEW Motorola Bluetooth Headset H500 Univ ...\$19.9531m View all 8013 items on eBay disclaimer