

December, 2010

White Paper Voice over IP or VOIP

So! You're contemplating ordering Voice over IP now that you have broadband installed. You've looked at the online advertisements and the price is really attractive. This brief white paper is designed to help you make a choice that will enhance your communications experience.

Overview

Voice over IP is telephone service that sends your voice across the Internet or other IP network as data, along with all of the other data that is traversing the Internet. The following paragraphs will provide an overview of the technology and some opinions about some of the VOIP services offered.

How does it work?

When you contract for VOIP service, you receive an electronic appliance called a VOIP Residential Gateway. You are instructed to plug a corded or cordless telephone into the VOIP Gateway as well as your home network.

The role of the gateway is to maintain a session with the VOIP provider's network and equipment, to provide dial-tone to the telephone that you connected to the Gateway and to convert your voice into data packets that will be sent through the VOIP Provider's network and equipment to the destination phone number that you are calling and the reverse; that is, to convert the voice data packets sent by the person you are talking to into voice that you can hear on the telephone you connected to the Gateway.

How well does it work?

VOIP can work astonishingly well, providing as clear if not clearer voice transport than the Public Switched Telephone Network (PSTN) that you have used all of your life. Nationally, most VOIP providers are the the ISP providing you Internet service. Cox and **AZCI.net** are both ISPs and VOIP Providers. **AZCI.net** has designed it's ePhone Service so that the voice traffic **NEVER** leaves our managed network and never travels onto the public Internet. Other providers, such as Vonage, MagicJack, 8x8, have to send your voice traffic across the public, unmanaged Internet to reach their VOIP equipment. Many times, the Internet traffic interferes with you voice traffic and you and you called party have a difficult time understanding, sometimes, the voice that you send and hear will be garbled. While VOIP providers like Vonage, MagicJack and 8x8 **cannot** guarantee the quality of the voice experience since the packets travel over the Internet and the Internet is a non-managed public network, **AZCI.net** can and DOES guarantee the quality of your voice conversations, provided that the person on the other end is using a landline phone from a Local Exchange Carrier licensed by the called party's state Public Utilities Commission.

How can one assure that VOIP quality will be acceptable?

If you choose **AZCI.net's ePhone Service**, your voice quality is guaranteed!

Should you Choose VOIP?

If you are an **AZCI.net** customer, you have nothing to lose and everything to gain, so for sure choose ePhone Service.

Powering Community Hi Speed Internet

What calling features are available with AZCI.net's ePhone Service?

Basic ePhone Service comes with a rich set of features normally charged for by telephone providers. These include but are not limited to:

- Voicemail to Email
- CallerID
- Call Transfer
- Call Waiting
- Call hold with Music on Hold
- Three-way Calling

Additional ePhone Service options include, but are not limited to:

- Fax on Different Phone Number Service – analogous to Distinctive Ring or Custom Ring Service, but better because it allows you to advertise a different Phone Number for your FAX or to port in an EXISTING Fax Number to you new ePhone Service
- Commercial Virtual PBX Service – Replaces onstyle Electronic PBXs with nothing to buy.
- Commercial SIP Trunk Service – can be paired with either VOIP Ready PBXs or old style FXS/FXO PBXs.
- International Calling Services

Author: Gregory A. Friedman
AZCI.net Engineering and Support