

# What Is VoIP and How Does It Work

## Introduction

The way we make phone calls is changing. In fact in many circumstances things have already changed. Take long distance calls for instance, many service providers are already using a technology called Voice Over IP or VOIP for short. If you have never heard of VOIP before, then the following article will change the way you think about how long distance phone calls are being made now, and about how all phone calls will be made in the future. Voice Over IP (VOIP) is a method for turning analogue audio signals into digital data that can be transferred over the Internet.

You may be asking yourself how this is useful. Well think about it for a few seconds. If it is possible to turn analogue signals into digital data, then VOIP can turn a standard Internet connection into a method for placing phone calls anywhere in the world virtually free, except for your Internet service fee, enabling you to bypass the phone companies entirely.

Voice Over IP (VOIP) has the potential to completely revolutionise the way the worlds phone systems operate. There are many VOIP service providers that have been around for a while, and are growing steadily. Now the worlds leading telecommunications operators are waking up to the endless possibilities of this new technology, setting up VOIP calling centres around the world and promoting the sales of Voice Over IP phone systems. Read more information: <http://online-articles.org/voip/site-map.php>

## Making a call

With VOIP phone systems it is possible to make a call in one of three ways:

ATA (gateway) ? The simplest way to make a VOIP phone call is through the use of ATA's (analogue telephone adaptor) sometimes called gateways. These devices enable you to make use of your existing standard analogue phones. You simply plug your standard handset into the ATA (gateway) then connect the ATA to your

computer or your Internet connection, enabling you to make VOIP calls. An ATA takes the analogue signal from your standard phone and turns it into a digital signal that ready for transmission over the Internet. Some ATA's (gateways) come with additional software that is loaded onto a host computer, enabling you to configure it for VOIP accurately.

IP Phones ? These handsets look just like normal standard handsets. They have an RJ 45 Ethernet connector instead of the standard RJ 11 connectors. These phones have all the necessary software and hardware to handle VOIP calls already built in them. They connect directly to your router, providing a very fast and cost effective entry into the world of Voice Over IP.

Computer to computer ? This is the easiest way to make use of the VOIP technology. There are many companies offering cost effective software that you can use for this type of VOIP. Usually the only charge you pay is the monthly one from your Internet service provider, even for long distance calls. All you need is a microphone, speakers, a suitable sound card and a fast Internet connection.

Chances are that you have already made a VOIP call without even realising it. The major phone companies already use VOIP to route thousands of long distance calls through a circuit switch and into an IP gateway. This is then received by a gateway at the other end and then routed to another local circuit switch. More and more companies are installing VOIP phone systems, and the technology will grow and grow until it finds its way into every business and household across the globe. Read more information: <http://online-articles.org/voip/site-map.php>

## **VoIP Features**

Because with VOIP you can make calls from anywhere you have access to a broadband connection, users can take their IP phones or ATA's with them on trips and still have access to what is essentially their home phone.

Some people use a softphone to access their VOIP service. A softphone is a specially developed software application that loads the VOIP service onto your desktop computer or laptop. Some even have an interface on the screen that looks like a traditional phone. These softphone applications allow you to place VOIP calls

from your laptop; anywhere in the world you have access to a broadband connection.

Most traditional phone companies charge you for extra features that are added to your account. With VOIP service providers these usually come as standard.

Features such as:

1. Caller ID
2. Call Waiting
3. Call Transfer
4. Repeat Dialling
5. Return Call
6. Three-Way Dialling

Some VOIP service providers also offer advanced call filtering features. These additional features allow you to decide how calls to a specific number are handled by using caller ID information. They allow you to:

1. Forward the call to a particular number
2. Send the call directly to voicemail
3. Give the caller a busy signal
4. Play a "not-in-service" message

Many VOIP services also allow you to check your voicemail over the Internet or attach messages to an e-mail that is sent to your computer or PDA. It's best to check with VOIP phone system suppliers and service operators exactly what features they offer as package and service prices vary greatly.

There are many other cost saving benefits that arise from a streamlined VOIP phone system network. For the network administrators, a VOIP phone system means they only have one network to maintain instead of two. The portability of the phone

system is also greatly simplified. This is because most VOIP phone systems can be configured using a web interface, which can be managed by the network administrator. The MAC (move, add, change) process is made much easier, and you will not have to call your system/service provider for every MAC you carry out. All this means lower ongoing costs for your company.

Another cost saving for companies who implement a VOIP system is, because multiple offices, no matter where they are in the world are seamlessly connected, they can share many of the features VOIP can offer, such as:

1. One single receptionist
2. Auto attendant facilities
3. Voice mail system

**Source: <http://www.go4expert.com/articles/voip-t875/>**