

What the Heck is VOIP and How Does it Benefit YOU!

Once upon a time, only the most elite of people had a telephone in their home. Then, once the technology got better and truly caught on, the majority of homes, especially in urban areas had one, and one alone. Flash forward a couple of decades and the lowly telephone had found its way into multiple rooms in the home, sometimes even the bathroom!

Of course, technology never stagnates for long, and the telecommunications arena soon had a new contender when mobile calling became a reality. It was nothing to see busy city streets filled with people chatting away on mammoth wireless phones. The networks soon got bigger to keep up with the ever growing demand, while the phones got smaller to please the public. Soon the basic phone had features like built in cameras, music and games. The boring ring gave way to nearly any sound bite or effect that you could imagine. Cell phones are now in every color, and some do more tricks than even the most techno forward people could imagine. But cell phone plans can be tricky and very expensive; at times they are even more expensive than the traditional landline phone service. Fed up, phone customers far and wide have cried out for a more cost effective alternative for their telecommunication needs and finally, their cries have been heard.

Voice over Internet Provider, or VOIP has actually been around for a while now, but is really seeing a surge in usage now. With VOIP, a user can make long distance calls via your broadband Internet connection for free. With a minimum of equipment, the user is soon seeing huge savings for all of their calls, often enough to more than make up for some of the minor disadvantages of the service. There are bound to be some bugs in the system, and while some are more serious than others, customers should rest assured that the service will only improve with time and its own growing popularity.

Many companies have brought VOIP in as an integral part of their telecommunications system although many have stopped short of converting to a solely voice over IP network. The bugs in the systems and the inherent drawbacks prevent that at this time, but it will probably be a reality in the coming years. Both the business and private user should be confident in the service and its coming improvement.

The service offers many of the same features of the traditional telephone service, including call waiting, caller id and others, although just like the phone company, VOIP service providers may charge extra fees for these.

VOIP is not a passing fancy; the technology will catch on for more and more people. Regular phone systems will be phased out in certain parts of the country as the demand for service overextends and overtaxes the circuit based systems. Circuits are expensive to install and maintain, driving the cost of using them beyond the reach of many families. Packet switching, such as that by used voice over IP is more cost effective and much more efficient. The savings are then passed on to the customer who enjoys a low monthly fee and free long distance service, a win-win for everyone.

Using VOIP to Add Another Line at Home or Office

Although voice over IP does have its place in the office set up, it is not reliable enough quite yet to take the place of all PSTN and mobile calling plans. It can however, be useful to add an additional line, especially for those set ups that are already frequent computer users. It just makes sense to use your computer to make phone calls if you are going to be setting there anyway.

The equipment is not expensive, nor is there a ton of it necessary to get started and in many cases the software is a free download. Hook up the right connections to the right places, download and install the right program and off you go, making phone calls while you are busy doing other things. This set up would truly benefit the people who want to do away with their expensive landlines but do not want to over use their cell phones either. It would also be beneficial to those people who find that they do not have cell phone service at one location or another for whatever reason. Do some research before you rush out and buy the gear however, remember, you will need high speed internet access to make VOIP phone calls, and you may not have that in certain places. Many rural areas remain cell and high-speed Internet service free, so know what is available to you.

Voice over Internet IP will allow other aspects of your telecommunications network to remain active in the money making aspect of your business, and it will save you money. Say that for instance, you are making a ten phone calls to Fresno during a week's time. Those phone calls cost roughly \$15 each, for a total of \$150. During the course of a month, those calls are going to equal out to \$600, a huge chunk for any company to expend on one business contact. Now, say that if a call is known to last over ten minutes of time, it will be made using VOIP and all other calls will be made with either system; the savings would be immediate and remarkable. The business does not think that Fresno is any less important, nor do they care any less, they are just going to save money and increase their profit margin.

The same concept can be applied to VOIP for home use as well. For those calls that are local or brief in duration, it would be perfectly fine to use the

landline telephone, but if you calling relatives in another state, it would be cheaper in the long run to use voice over internet IP. Because you can call anybody, no matter what type of network they are currently using, there is no need to let anybody know that how you are calling.

Either way, home or office, it might not be the best idea to make voice over internet your only telecommunications method, the system has too many bugs and disadvantages to take care of first, but as an additional line, it works efficiently and economically.

The Extras that You Can Still Get with VOIP

Many people assume that if they are using voice over Internet, they will lose many of the additional features that they enjoy from the regular phone company. Not true, my friend, not true at all. Many, if not all of the features that you need and enjoy from your traditional phone company are offered with voice over Internet IP. You should know however, that like the phone company, VOIP does charge an additional fee for these services as well.

Call forwarding, which can be a blessing on those days that you cannot pinpoint exactly where you will be from minute to minute will allow your calls to be sent to VOIP if you are heading back to your office or to switch from VOIP to your cell phone if your are going to have to go mobile for one reason or another.

Automatic redial will allow you to reattempt a connection if the first failed for one reason or another. Connecting with VOIP requires the same type of information as a regular phone call, with the exception that VOIP is using IP addresses and the PSTN call uses phone numbers. Either way, it is a bother to have to continually re-key the same information over and over and this service ends that problem.

Caller ID is probably the one feature that most people would pay nearly any amount for. The advantage of being able to choose what calls you answer and when is a huge advantage, especially if you are trying to avoid the timewasters, the annoying prattlers, and of course, the in-laws. In the business world, caller id can give the advantage of being able to refer to a caller by their name right off the bat, which can sometimes give a bit of an edge in this ultra-competitive world.

Teleconferencing with VOIP though, may have a distinct advantage over the same service with the more traditional phone company. When you are using

the phone for a teleconferencing call and find that you need information beyond what you already have, you may find yourself having to move to another location to find it. With VOIP teleconferencing, you are right there on your computer and all of the information that you could possibly want or need is right there at your fingertips, just a mouse click away. Many of the voice over Internet services have additional software specifically for teleconferencing usage, something the traditional phone company cannot boast at all.

And although you will probably be paying some additional charges for these services with voice over Internet IP, it is not likely to be more than what you are paying for comparable services with a PSTN. Your savings with long distance phone calls alone should more than make up for any fees that you would have to pay for additional services.

In the end, you must realize that nothing comes free, and that most things in life include some kind of a tradeoff. With VOIP you get free long distance service over a reliable network with many of the traditional phone company's perks and benefits. Yes, you do have to pay for them, but you would have to pay for them anyway, and pay for long distance service on top of it!

Integrating Other Online Services with Your Telecommunication Needs

Voice over IP offers the distinct advantage over the PSTN by allowing users to access other aspects of Internet service while using their computer based telephone. With the traditional phone, you can both surf and talk if you are lucky enough to have a high speed connection and can multitask or, if you are not as lucky, you can surf than talk if you are stuck with a dial up internet connection.

With your service integrated right into your computer, you can set up file transfers and have video conversations all with from the same computer and Internet connection. You will no longer have to transfer files, then call to make sure that the files were received by the one they were sent to, as it can be done all at one time. Some cell phones do have web capabilities, but because of their small size, they do not have the available memory space to hold very large files and can be unreliable during such applications to begin with. It is safer to trust a phone call made over your Internet connection during file transfers than the other way around.

Many cell phones have picture taking abilities, and some do some very brief life footage video, but none can offer a multi person video conference conversation as efficiently as the voice over IP. For this reason alone, many people are switching over to VOIP, especially for business usage.

Phone Calls Whenever

VOIP can offer an alternative to the PSTN or cell phone whenever there is a problem with either service. Pretend your drunken neighbor just backed out of his driveway and killed the phone pole- no one is going to have telephone service until the phone company comes, assesses the damages and gets a new pole set in place and re-hooks everything. That could take days at least to repair. If you are in an area that your cell phone does not work as well, how will you ever make a single phone call? Now you have the option of going to your computer and making your calls right from there.

If you have a laptop computer with enough battery back up, you can usually use your voice over Internet service to make calls, provided that your additional equipment does not need electricity to work properly. If it does not, you can be making phone calls in the complete dark, regardless of your cell phone and its service availability.

As people often do, there are peak times for phone calls, especially during special occasions and holidays. We will all seemingly reach for the phone at the same time, which puts a mighty strain on the phone company and its networks. With more and more people reaching for their VOIP services instead, the phone companies should start experiencing far less network bog down than they ever had in the past. Of course, the phone company does not want anybody else to know that, but it is true. VOIP can be just the alternative that a person needs to make a quick, efficient phone call without having to wait for a non peak time to do so.

Where Can I Sign Up?

Of course, the first step should be to see if voice over internet is even an option for you. Ask yourself the following questions:

1. Am I ready to start saving money on my long distance phone calls?
2. Do I have a home or office computer?
3. Do I have high speed Internet connectivity?
4. What exactly am I waiting for ?

Once you have figured out whether or not you have high speed Internet service or not, then you can start researching the different VOIP service providers. Do not sign up with the first one that you talk to, compare some prices, see what all is available for you in your area. There is a chance that there will be only one game in town for you, so the question will not be who

will be the best provider, but whether or not the service is right for you or not. If you are lucky enough to have more than one company to choose from, make sure that you select the right service plan, at the best price for you. Take advantage of any special sign up bonuses and ask about shorter term contracts to be sure that you are happy with the service. There is nothing worse than signing up for a two year contract and finding out that you hate the service or cannot really use it. Make sure that you understand the contract, the equipment and the service itself before you sign anything at all.

Many of the services are stand alone companies, while others are tied in with existing telephone networks. The old fashioned phone companies saw a huge opportunity to jump on board with this fast growing technology or risk losing growing portions of their core customer base. To keep up with the times, the major PSTN are now offering VOIP services as well, and if they have not already, rest assured, it is in the works for them as well.

Just like cell phones, many of the VOIP providers have a monthly rate plan that allows users to sign up and pay a single, flat rate for the entire month for a basic plan. Additional fees for additional services will apply, of course, but in most cases, long distance service is included for free. Again, make sure you understand the contract before signing it, because some companies will charge additional fees and penalties for early termination of service.

Additional information that you will need before signing up for service are things like, who pays for installation and other setup tasks? Which equipment will be provided and which will have to be purchased by you, yourself? How difficult is the recommended equipment to set up and use and last, but possibly most importantly, is there a tech desk to answer any installation or usage questions that may arise?

Start your research of this new technology on the web, looking up VOIP service providers and doing a side by side comparison of the ones that look promising to you. Again, make sure that the ones that you choose actually provide service to your area. A final thought to consider when choosing a VOIP provider: there are many of them that are not tied into the existing 9-1-1 call system which should be a red flag to just about anybody that is looking for service. While some providers do not tie in to the system, others do and go one step above and beyond with enhanced 9-1-1 which will not only give your location, but other vital information to the dispatcher whenever an emergency call is made using your VOIP.

The Equipment

To get started, you will of course need the right provider. Hopefully, you followed the previous sections guidelines and found the right provider at the right price for you telecommunication needs. You will also need a computer of course, and a high speed (broadband) Internet connection. Next, you will either need the specialized VOIP phone, or an ATA, which is simply an analog telephone adaptor for your old phone if you would prefer. If you are making what is known as computer to computer calls, you will need a microphone and speakers, as well as a sound card. Many of the newer computers, in response to the growing trend toward Internet phone use, are integrating microphones and speakers right in their set ups.

The ATA will allow you to keep the phone that you are comfortable and familiar with, but still connect to the computer for free long distance and the other advantages of the voice over IP system. Usually no more than a simple plug in operation, the entire process should take no more than sixty seconds to complete.

The regular, VOIP specialized phone looks like a regular phone with all of the same parts, but has a different connection in back to allow it to hook directly to the computer for VOIP use.

Finding any of this equipment is not difficult, and you should be allowed to find it in enough places to do some careful research before making the purchase. Which will be the best for your particular situation? What kind of system would be easiest for you to set up and to use? Do you need to know any certain kind of techno-lingo to understand any part of the set up for any of this equipment? What does the service provider recommend? After you find the best type of equipment, you should then look for the right price.

Many of the equipment can be found at electronic stores of course, but many of the big box retailers also carry selected types as well. Make sure that you know what you are looking for before walking into the store and do not allow a high pressure salesperson to change or sway your opinion once you get there.

The Software

As with anything that you do using your computer, your VOIP system will require you to download software that will run the program. Once you download the program onto your computer's hard drive, it will be there until you uninstall it, so you will not have to continually do this relatively simple operation. Of course, as the technology grows and improves, there will bound to be upgrades, so you may have to upgrade your software from time

to time to keep up. This too should be a simple process, but let's do this one step at a time, shall we?

Some equipment or service providers will include the software as part of the package, so you will simply insert the disc into your drive and then follow the onscreen directions to complete the installation. With installation wizard as part of most basic computer set ups, there should be no real trouble in doing this part. Once installation is complete, you will have the option of using the program immediately, or waiting to try it out. You can also choose where to keep the icon on your toolbar, customizing it to your own liking and needs.

If the software is not included in your equipment packaging or as part of your contract with your service provider, you still may not have to purchase it- there are many websites that will allow you to download the appropriate software for free or for a nominal fee- just check with your service provider to be sure that it is in fact compatible with your plan before downloading anything onto your computer.

It might be in your best interest to check with your provider about software and upgrades before signing up for a contract. Will you be financially responsible for any and all upgrades to equipment or software as they become necessary? Some providers will alert you to an impending upgrade, while others may not, forcing you to keep up with the market and technology trends for yourself.

Many people find sharing software to be unethical, but if the cost of a program is too high for one person to comfortably afford, why shouldn't they split the cost with another person? Thankfully, for the most part the necessary VOIP software is free or very low cost, so that is not such an issue here.

A Few Words of Warning to Consider

It may sound like a dream come true, and for many people, having free long distance service is just that: a dream come true. It may sound like science fiction- sitting at your computer making phone calls to people half the world away. The world is changing in remarkable ways nearly every single day. And while voice over internet may be an economical, easy way to add an additional line for a business, or a quick and cheap way to make calls from home, it is not a fool proof, risk free venture by any stretch of the imagination. There are many bugs and snafus left in the system that must be worked out- preferably before it catches on and blows up as big as the predictions indicate. All newer technologies have problems, that is a given., but some of the VOIP issues are big enough to give the most savvy among

us a bit of a pause before they sign up for the service. If you think that you are ready to make the leap, read on for a few of the things that you should keep in mind and be prepared for.

- 1) Most voice over Internet providers are not tied into existing 9-1-1. Although we covered that in this guide, it is important enough to bear repeating. If you are at all worried about getting help in an emergency system then go with a provider that does have enhanced 9-1-1 or have an alternate forms of communication in addition to your VOIP service.
- 2) There might be issues with power during outages. For many people, their VOIP will be connected to their desktop computer, which is run by electricity. For those people, if voice over Internet is their only means of telecommunications, they will be without an option during a power failure. If your voice over internet system is connected to your laptop computer however, you will have phone service, that is at least as long as your battery holds up.
- 3) There might be issues if you have other systems in your home that work via your phone line. These could include digital television, and digital video recorders. Right now these services are competing with each other for your phone line, the providers must find a satisfactory way to get all their customers all of the services that they might want to have and to enjoy.
- 4) Security remains a huge issue with VOIP right now. Without some serious upgrades to security systems, this service can invite viruses and worms into your computer during phone calls, leaving you vulnerable for system wide attacks and information mining hackers. No one really wants to see their computer crash because of a spy ware bug, so encryption and other security methods must be added to voice over internet service before it creates a huge meltdown with computers worldwide.
- 5) Quality of service remains part of the issue with VOIP. Granted, it is a newer technology with a new and ever-growing network, but the problem with quality of call remains a huge sticking point. Jitter, which is detected by users as distortion or dropped conversation is the major problem right now and can be reduced by using a jitter buffer, but once you start adding more and more pieces of equipment to handle each individual problem, you start losing part of the savings that drove you to the service in the first place. No one wants to have to pay out a ton of money to compete a million little problems as they arise, why would they when they can just go back to the phone company and make clear, problem free calls without the extra hassle?

VOIP is a packet switched system, which routes the packets of information (in this case, the words that you speak) to the end user via the least

congested route that it finds. It does not have to travel any certain, set path that is beneficial when the network is busy in one area, but can lead to delays that are unacceptable to either party. No one is going to say "Will you marry me?" on one end of a VOIP call and then patiently wait for five or ten minutes for the answer to come back. This delay is even less acceptable in the business world when deals are made or broken in the blink of an eye.

6) And finally, the quality and power of the computers themselves. Since there is not a standard set for the computer that is being used for VOIP calls, there will be undoubted variations in the amount of power, memory and speed that each will have. A slower or older computer may only have enough power to provide clear VOIP if it is the only system running at that time, but many people want the ease of using the computer to do many things at one time. In that older computer, opening a new program may cause a drop in the quality of service, or may disconnect the call altogether. Either way, the system may not move fast enough to handle VOIP and the decision will have to be made, use the computer for only one purpose at a time, or drop the voice over internet service.

Finally, The Wrap Up

Voice over Internet service is relatively new to the general public, although the technology has been around for quite some time. There will be issues, and there will be growing pains, but you must remember the old standard telephone company had the exact same types of hurdles to leap through during its early days. The service has some distinct advantages and will only get better as it becomes more popular. For many people, dealing with some minor issues now is worth the money they save in the long run. For others, they are just curious about the next big thing, and will either like it enough to keep the service or will not. Either way the system is only going to improve, especially as it grows into the giant telecommunications monster that experts are predicting it to be.

The regular phone companies doubted that mobile phones would catch on back in the day, and then nearly got burned by that concept. They all had to scramble to provide their own cellular service to stay competitive, and learned a valuable lesson in the process. Now, whenever a new telecommunications technology becomes available, the phone companies are faster to provide their own version of it so that they can stay in the game. VOIP is the latest game, so the traditional phone companies are working hard to get their own versions up and running. Again, do not simply sign up for a service based on name recognition alone. By all means use that as part of your process, but do not allow it to be your only factor. You still must make sure that you get the best service, at the best price for you, regardless of what service you ultimately end up signing with.

The equipment is easy to understand for the most part, but might take some getting used to, so make sure that you read any information that you get carefully and thoroughly. Also, make sure that you know how to correctly install your software and to use it.

VOIP is not for everyone, but it can be a nice addition to the existing telecommunications system for home or office. The service is bound to improve as time goes by, making it safer, faster and better for everyone in the long run. Only you know what your needs and standards are, so make sure that you consider everything before you sign up for service and then enjoy your free long distance!