ResourceNATION

VoIP Phone Systems

Internet Speak-Easy

Buyers Guide to VoIP Phone Systems

1. **What is VoIP?**
2. **Switching to VoIP**
3. **VoIP Terms and Vocabulary**
4. **Saving money with VoIP**
5. **Points to think about before making the switch**

What is VoIP and why should my business upgrade?

VoIP, short for Voice over Internet Protocol, is an online phone system with traditional landline capabilities as well as new interactive communicative technologies such as video conferencing and single-click dialing. The first use of an Internet phone was back in 1995 and was developed by Vocaltec. The software Vocaltec designed ran on a PC and on a H.323 protocol instead of the SIP protocol that is more popular today. The reason this software didn't take off back then was due to the fact many households and businesses didn't use broadband Internet, making the sound quality less then desired compared to the traditional phone lines.

With recent improvements in technology as well as the low cost of connecting calls over the internet, VoIP has quickly become an easy sell to businesses looking for a way to save money as well as increase communication productivity. Especially for businesses that have multiple offices, which can all be hooked up to the same account--allowing these types of businesses to transfer calls from offices that could be in other cities or states.

Internet phone systems also have the benefit of not charging for peak calling hours. In the long run, VoIP offers businesses a chance to save considerably on phone bills while still retaining simple landline options such as caller ID, voicemail, and call-forwarding in addition to new features like video conferencing and improved call quality.

This buyer's guide details the basics of converting to VoIP, such as finding the right hardware and which internet connection would benefit the user, as well as provide information on the potential costs as well as drawbacks of using an internet based phone system.

Switching to VoIP Services

Switching to a VoIP system can be both inexpensive and relatively easy, as long as you take the time to choose the right high speed internet connection and the right equipment for your business needs. Having the right internet connection involves determining the call volume that comes in and out from your local business.

VoIP works by transmitting calls as "packets" of information over the internet, similar to sending digital files through email. The only difference is that the calls can be made to traditional landlines, cell phones, and other internet phone systems. Therefore, the more calls that need to be made, the better it is for the business to have a faster internet connection.

This is actually fairly easy, and mainly involves determining how many employees you have, what their estimated call volumes during business hours will be, and what features you will need – video conferencing needs more bandwidth than a simple voice call, for example. Most VoIP providers will test your connection speeds for you and help determine if you actually need an upgrade.

The same goes for VoIP equipment as well, where how much you spend depends on what exactly you plan to do with your business. Most companies hear internet services and expect their budgets to sky-rocket because of new equipment costs, but this is far from the case as many businesses can use their existing traditional phones and purchase adaptors instead of VoIP phone sets. These sets can cost up to $50, depending on what you ultimately go with, but will work with anything from desktop phones to headsets to simple computer speakers and microphones.

If your business wants to do a complete upgrade to VoIP systems, and this will benefit you in the long run because VoIP quality improvements may require upgrades in the future, the costs can build up. Then again, this depends on the specific brands and models that you choose – top of the line systems can run into triple digit price tags, but they can also be much cheaper if you choose quality over flash.

Again, like determining your internet connection needs, many providers will help you figure out what upgrades are needed and provide you with a price quote for whichever system you want to go with. In most cases, your phone bills can be combined with your internet services, and the set-up can be finished within a matter of days.

VoIP Terms and Vocabulary

Before you begin looking into services or talking to providers to ask for a quote, you might want to familiarize yourself with some common VoIP industry terms. To connect to the Internet, you need a _router_ and an _ISP_, or Internet service provider. ISP's offer many different types of connection services with different types of _bandwidth_ speeds. Bandwidth is the term used to measure your connection to the internet in terms of bits per second, and this will be how you ultimately determine how much call volume your office needs.

ISP's offer connection speeds from dial-up to digital subscriber lines (_DSL_) to asymmetric digital subscriber lines _(ADSL_) and finally, to _broadband_ internet connections. While you won't need to memorize these terms, they can come in handy when you are trying to pick the correct bandwidth needs of your business.

Dial-up is the most basic of the services, and usually only serves simple internet browsing. Next is DSL, which uses a copper telephone wire to send information, and then ADSL, which uses thicker copper wire cables than DSL, thus transferring more information "packets" and offering more bandwidth. Broadband is the fastest of the services, and offers speeds of at least 100kbps, which is what you will probably need for uninterrupted video conferencing, but again, your ISP will help you determine all of this.

As far as equipment goes, the type of systems that you currently use for traditional landlines are public switched telephone networks, or _PSTN_. These landlines have geographic origins, and are the reason you have long-distance and international charges as well as peak-calling hours.

The handsets used by PSTN connections are _analog_ phones, and work by converting sound into electrical vibrations that are transmitted across phone lines – think two cups connected by a thin wire in terms of technology. In VoIP, voice is transmitted as data "packets," and these packets hold digital information such as the sound and video that VoIP systems use.

Your business can either look into specific VoIP phone systems that are built to process these packets of information, or you can use an analog telephone adaptor, or _ATA_, to convert the information to your traditional analog handsets.

Saving money with VoIP

The major benefit of switching from a traditional analog PSTN to an internet based phone system is cost savings. High call volumes from PSTN's incur charges for long distance, peak-hour calls, and most importantly international connections. Since VoIP operates over the internet, you will only be paying for monthly internet service charges.

By sending digital information packets instead of placing individual connection calls, your business is essentially using the internet like it normally would to send emails or browse the internet. Internet services have flat rates, and instead of charging for things like single emails, the bill only comes out to your monthly connection charges of DSL, ADSL, or broadband usage.

Simply put, while PSTN companies can charge by each call that is dialed and connected, internet calls aren't regulated by distance or even call times, and the information sent over the internet, which isn't measured and is actually available on an unlimited basis, is paid on a standard monthly fee by your ISP.

This also means that companies can place calls between branches nationally or internationally without extra charges, and also provides a way for callers to be connected or transferred to employees anywhere within the system from a single location. This basically allows for instances where one person answering phones can help direct calls all across the globe.

In addition to call savings, you will also be saving on traditional analog service add-ons, where options such as call-forwarding, call-waiting and voicemail are usually less expensive. VoIP providers also offer many traditional service features such as call blocking, caller ID, 3-way calling or conference connections, and faxing services.

Internet phone providers also offer service specific options that can help increase productivity. One feature that is exclusive to VoIP services is an option called "Follow Me," which allows a single phone number to connect and ring across multiple lines and locations like cell phones and Wi-Fi connected laptops.

"Follow Me" allows for employees to travel without missing calls and erases the need for separate phone bills or long distance lines. Also included as private VoIP features are Hold Music and Information voice options, where callers can listen to prerecorded business information or listen to hold music.

Another innovative option called Outlook Integration allows calls to be sent from Outlook email boxes. VoIP service providers usually offer their own packages, and may even offer more options depending on the company.

4 Points to think about before making the switch to VoIP

The potential cost of VoIP services depends on the services chosen, the provider's individual fees, and also the type of equipment used. While you've read about how equipment costs can add up, it is also important for you to learn how much VoIP can cost right off the bat.

1. **Start-up Costs:** Start-up costs for VoIP can include things like having technicians come in to reroute your offices internet connections, setting up a stable power supply, and most importantly, upgrading to an ISP service (DSL, ADSL, and broadband) that can support your business' call volumes.

   On another note, if your business is brand new and looking to establish monthly costs, choosing a VoIP service from the start can cut your costs considerably if you are thinking about upgrading in the future. Upgrade costs can end up being a lot more than starting costs, because of the lack of old equipment to dispose of and you can establish a more stable budget that doesn't need to be changed down the line.

2. **Maintenance Fees:** If you talk to an ISP about upgrading, remember to ask if they charge for monthly maintenance or if they have established wait-times for technicians to come in. Also, think about the time it will take to train employees to use the system and also how long it can take for them to become familiar with the new equipment.

   Employees will have to learn how to restart, disconnect, or even connect the systems themselves if your business chooses not to hire maintenance personnel. While comparing prices for equipment and services, be sure to pick a provider you feel you can trust and rely on, and most importantly, get a hold of in case of an emergency.

3. **Backup Plan:** It is important for your business to have a backup plan, as technology has a way of outwitting its users and going down when you least expect it, the same way traditional phone lines can go out and power outages can take place.

   Having a back-up phone line in place is a good way to make sure you can still place emergency 911 calls, and if the landline is only used in special cases, the phone bills will stay low. Also, make sure you have the right internet service chosen for your business needs, as services like DSL and ADSL can slow down when too many people are online and calls can potentially be dropped if there is not enough bandwidth to go around.

4. **Security:** Another important factor to consider when thinking about VoIP services is that the potential for Internet problems can affect your phone systems as well. Hacking and viral breaches such as eavesdropping will need added security from your ISP to prevent. Although many of these problems can deter users from switching, they can almost all be prevented by making sure that your vendor has a strong history of customer support and satisfaction when you decide to start shopping.

Once you have thought all of these options out, you should be able to find the best VoIP vendor for your company's needs. Saving money, especially in these hard economic times, is becoming more and more crucial for business owners. With savings on long distance calls, and the convenience of traditional phone capabilities, VoIP seems to be a win-win.