



VoIP

VoIP: It's A Phone, It's a Computer, It's ...

Voice over Internet Protocol—VoIP—is one way people are making and receiving telephone calls using a broadband Internet connection rather than a regular phone line. VoIP converts your phone call—actually, the voice signal from your phone—into a digital signal that travels through the Internet to the person you are calling. If you are calling a plain old telephone number, the signal is converted back at the other end. If you're comfortable with new technology, you may want to learn more about VoIP. OnGuard Online suggests that it's smart to do some research on this technology before signing up for it

VoIP Technology

VoIP technology is offered by some companies that specialize in VoIP service, some traditional telephone and cable companies, as well as some Internet Service Providers. Most services using VoIP allow you to call anyone with a telephone number—including local, long distance, cellular, and international numbers. Others may allow you to call only people with the same service. In addition, most VoIP services allow you to use a traditional telephone through an adaptor, but others work only over your computer or a special VoIP phone.

If you get VoIP service that allows you to make a call using a phone with an adaptor, you dial the same way you always have. If you get a VoIP service that works directly from your computer, you need to use special software, a microphone, speakers, and a sound card. If your service assigns you a regular phone number, anyone can call you from a regular phone—analogue or digital—without any special equipment.

VoIP Services

Many VoIP services include unlimited local and long distance calling plans (at least within the United States and Canada) for a fixed price, plus a range of interesting features, like:

- the ability to have more than one phone number, including phone numbers with different area codes. For example, if you live in New York and your kids live in San Francisco, you can have a San Francisco phone number, and their calls to you will be local.
- integrated voicemail and email message systems so you can listen to your voicemail on your computer or your email on your phone.
- with special software and hardware, the ability to take your VoIP system with you if you travel with your computer. That means personal or business calls can be routed to you no matter where you are.



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Caveats

Any decision to sign up for a VoIP service should be based on careful consideration of the facts, and your comfort level with technology. Investigate the companies you are considering for your service. Many Internet search engines can lead you to a wealth of information about consumer experiences with particular providers.

Among the issues to think about are:

Terms and Conditions. Ask about the costs, terms, and conditions of service. Many VoIP providers offer monthly calling plans: make sure you know the number and type of calls included in the amount you'll be billed. VoIP plans generally look inexpensive compared to regular telephone plans, but don't forget the cost of broadband Internet access. For most people, that will mean paying separately for cable modem service or digital subscriber line (DSL) service.

911 Services. The Federal Communications Commission requires most VoIP companies to provide 911 call services as a mandatory feature. That means they must transmit all 911 calls, callback numbers, and your registered physical location to your local emergency authorities or a statewide emergency operator. Before the provider can activate your phone service, you must register the physical location from which you'll use the VoIP service; the provider must give you an easy way to update that information. Keep your information up-to-date so emergency services can locate you.

But, depending on your area, there are exceptions to this requirement that could leave you without access to 911 call services. Confirm with any VoIP company you're considering that they provide VoIP 911 call services and ask if there are any limitations on those services.

Limits of Service.

- **Phone Number:** Many VoIP companies can arrange for your current phone number to be switched to your VoIP service, but that could take time; in the interim, you will have a new phone number.
- **Directory Assistance:** VoIP services don't have the same access to directory assistance services as traditional telephone service does. Your telephone number probably won't be included in directory service listings provided by the local telephone company.
- **Power or Service Outages:** Consider backup phone service for power or service outages.



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- **Do Not Call Registry.** When you switch your telephone service to a VoIP provider, you may need to re-register your telephone number with the National Do Not Call Registry—even if your number stays the same. In addition, some actions (changing calling plans or other services, or changing the billing name on the account) may cause your registered phone number to be deleted from the Registry—even if your service has not been interrupted. To verify that your number is in the Registry, visit www.donotcall.gov or call 1-888-382-1222 (TTY 1-866-290-4236). Each time you re-register, telemarketers will have 31 days to take your number off their call lists.

Equipment and Installation. Installing VoIP service is not as simple as plugging in a telephone. You may have to connect equipment and adjust to a new system. Note that there are different ways to use the technology: An analog terminal adaptor works on your regular phone to enable VoIP calls. Or you can use special Internet telephones, known as IP phones, that look like traditional phones but have all the software and hardware necessary to connect directly to your computer's router to make or receive calls. If you use VoIP to make computer-to-computer calls, you'll need special software, a microphone, a sound card, and speakers. If you're using VoIP and a phone adaptor to make calls, your computer doesn't have to be turned on as long as your broadband Internet connection is working.

Security. VoIP calls are transmitted over the Internet, which raises security risks that are not an issue with regular telephone service. For example, VoIP services can be attacked by computer viruses or worms; you can be subject to SPIT (Spam over Internet Telephony), a new kind of spam, and left with mass voice mail messages in your inbox; and you can be caught in a denial of service attack.

OnGuardOnline.gov provides practical tips from the federal government and the technology industry to help you be on guard against Internet fraud, secure your computer, and protect your personal information.

August 2006