



What You Need to Know About

VoIP (Voice over Internet Protocol)

Several companies offering local and long-distance telephone service are now using customers' existing high-speed broadband connections instead of traditional poles and wires. Voice over Internet Protocol, or VoIP, technology provides additional choices and potential savings. However, important consumer protection issues are still unresolved and the Office of the Ohio Consumers' Counsel (OCC) has produced this fact sheet to provide you with additional information about VoIP and address some frequently asked questions.

The basics of VoIP telephone service

Just as graphics, e-mail and video are carried at a fast speed through broadband connections, VoIP technology allows these lines to also carry telephone calls. Calls are instantaneously converted to bits of data, transmitted through these lines and heard by the recipient just the same as a traditional call.

Many VoIP companies offer service to customers who have existing broadband through their telephone (DSL) or cable lines. Some cable companies may offer local and long-distance service over their digital cable lines that does not require a high-speed broadband connection. This type of service is not VoIP.

Customers who subscribe to a VoIP service must connect special equipment (such as an adaptor) to make and receive calls using most standard telephones. Many VoIP services allow customers to call any telephone, regardless of whether the recipient uses VoIP or traditional telephone service. Typically, VoIP service packages include unlimited local and long-distance calls for one monthly fee. Features such as call waiting and voicemail also may be offered.

As a result of today's technology, calls made using many VoIP telephone services offer about the same sound quality as traditional telephone calls.

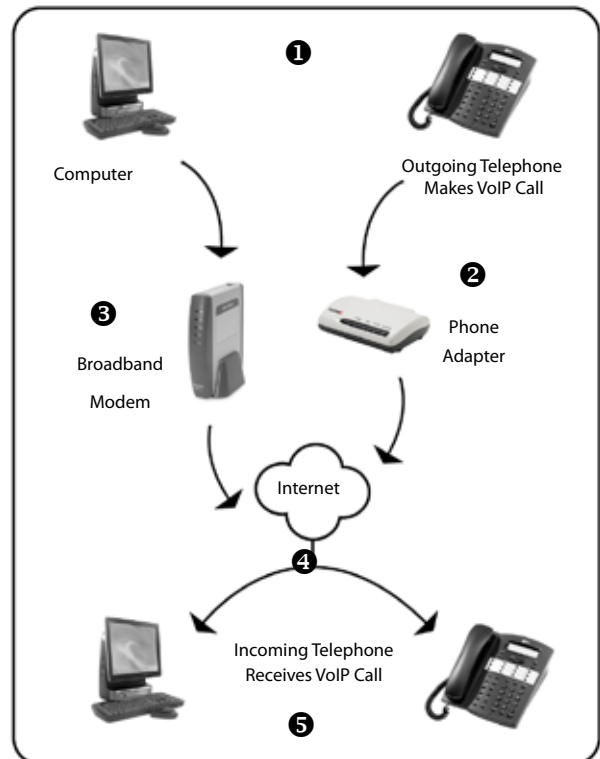
For a list of VoIP providers, click [here](#)

Essential equipment

Most VoIP service may be accessed only through a high-speed connection. Be sure to ask VoIP providers about any required or recommended equipment, which could include a computer meeting certain specifications.

Customers who have a high-speed connection through their local telephone company's DSL service should remember that this service probably is carried on their telephone line. So, most DSL customers signing up for a VoIP plan are not able to drop their existing telephone line because it is needed to maintain the high-speed connection.

How Voice over Internet Protocol typically works:



- 1 VoIP features are set up on the computer and then calls can be made using most traditional telephones.
- 2 The computer and phone plug into an adapter which converts the analog signal to digital.
- 3 A high speed modem carries the signal.
- 4 The signal travels to a hub and converts the signal back to analog.
- 5 The call is received.

Additional equipment that may be needed includes a special VoIP modem or adaptor, which may be available through the VoIP provider, and any standard telephone. Most VoIP services do not operate using the multiple telephone jacks contained throughout a home or apartment. Instead, VoIP service typically relies on the single telephone or cable jack from which the customer receives their high-speed connection.

Since VoIP service is typically connected to a single telephone outlet or jack, consumers may want to consider purchasing a long-range cordless telephone with multiple handsets. This type of cordless telephone has a "base unit" which can be placed near the Internet connection. The additional handsets work from a signal sent from the base unit and can be used as "extensions" by being placed in several rooms.



coming into those telephones may not be answered quickly or at all.

Consumers using VoIP as their only home telephone service also should be aware that during a power outage, VoIP service might not work. Problems with a customer's computer, broadband connection or VoIP equipment could also eliminate the ability to make and receive calls.

Home security systems typically must use a traditional telephone line to activate the alarm and notify the security provider of an emergency. These systems may not function for customers with VoIP service, since consumers may have dropped their telephone line or have already split their line to allow for a DSL connection. The telephone line cannot be split again to allow for an alarm system.

Public safety issues

Currently, there are public safety concerns when residential consumers replace their traditional home telephone service with a service using VoIP technology. Consumers should be aware that dialing "9-1-1" using a VoIP service may not function in the same manner as when using a traditional telephone service. Depending on the VoIP provider, 9-1-1 may not be available or may not enable customers to have direct contact with local emergency services. In addition, a customer's address, which automatically is visible to a 9-1-1 operator when using a traditional service, may not be generated when using VoIP service.

Consumers should ask about the availability and functionality of 9-1-1 before signing up for service and if any form of activation is needed for 9-1-1 to work properly. If 9-1-1 is not available through a VoIP provider and a consumer still wishes to sign up for service, he or she should find and consider using local seven-digit police and fire telephone numbers in case of an emergency. Consumers may be able to program those numbers into their telephone for easier access in the future. However, seven-digit police and fire numbers may be administrative numbers that ring into an office or reception area. There is a possibility that calls

Consumer protections may not apply

The OCC believes companies providing VoIP services should be required to provide consumer protections and adhere to service quality standards. For example, VoIP providers should be required to comply with standards comparable to Ohio's Minimum Telephone Service Standards.

The OCC will continue to advocate that all customers receive important protections. For more information or a copy of the OCC's "Know Your Telephone Rights" fact sheet, visit www.pickocc.org or call 1-877-PICKOCC (1-877-742-5622) toll free.

Features and services

Consumers should be aware of the availability and functionality of features like Caller ID and services like Directory Assistance through a VoIP provider. Some providers may not offer certain features and services, or offer products that operate differently than a customer is used to with his or her traditional telephone service. On the other hand, VoIP providers may offer additional features and options unavailable to those customers with traditional service. For example, some VoIP providers allow

consumers to use the service from other high-speed connections while traveling.

Consumers should be aware that if they drop their traditional local telephone service, they might not be listed in the local "white pages" telephone directory. They also may no longer be guaranteed to receive a directory from the local telephone company free of charge.

Potential savings

For consumers who have an existing need or desire for high-speed access, VoIP telephone services may offer cost savings. Currently, many VoIP providers do not pay some fees and charges required by other companies that provide local and long-distance telephone service.

When comparing plans among traditional and VoIP providers, consumers should ask about any taxes and surcharges that will appear on their monthly bill. Considering the total cost of one month's

service will give consumers a better indication of potential savings.

In addition, some VoIP providers charge an early termination fee if a customer drops the service before a certain period of time. Most VoIP services must be paid through a customer's credit card.

While VoIP promises to bring more choices and savings opportunities to some parts of Ohio, important consumer protection and public safety issues are still being addressed at the federal and state levels. The OCC will update this fact sheet to bring you current information about VoIP technology and related consumer protection issues.

The Office of the Ohio Consumers' Counsel (OCC), the residential utility consumer advocate, represents the interests of 4.5 million households in proceedings before state and federal regulators and in the courts. The state agency also educates consumers about electric, natural gas, telephone and water issues and resolves complaints from individuals. To receive utility information, brochures, schedule a presentation or file a utility complaint, residential consumers may call 1-877-PICKOCC (1-877-742-5622) toll free in Ohio or visit the OCC Web site at www.pickocc.org.

The Office of the Ohio Consumers' Counsel is an equal opportunity employer and provider of services.

For additional information from the Office of the Ohio Consumers' Counsel:

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