

**THE NEW HAMPSHIRE
RATE WATCHER**
(It's Your Money)

The Consumer Newsletter of the
New Hampshire Office of Consumer Advocate
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*Q. What's new in the telephone industry?
A. E-911, VoIP or Internet Voice, Wi-Fi and more!*

**SPRING RATEWATCHER 911 NEWS:
CORRECTION**

The Spring 2005 Ratewatcher included a discussion about the use of global positioning system equipment to identify the location of mobile phone callers to 911. Readers were cautioned that not all mobile phones are equipped with such location-detection technology. The discussion, however, neglected to mention that **not all 911 call centers are equipped to receive location signals from GPS technology.**

New Hampshire's E911 call center is equipped for and capable of receiving location signals from global positioning system equipment installed in mobile phones. If you travel outside of New Hampshire and make a call to 911 from a mobile phone equipped with GPS technology, however, the 911 call center receiving your call may not be equipped to receive your location information. Consequently, you may want to provide your location and call back number immediately upon your connection from a mobile phone to any 911 call center.

VOIP/INTERNET VOICE

Voice over Internet Protocol ("VoIP") or Internet Voice uses a broadband Internet connection (instead of a regular analog phone) to make telephone calls. VoIP is a method for taking spoken words - in the form of analog sound waves and turning them into digital signals - or "bits" of data - that can be transmitted efficiently over the Internet and

reconverted to analog waves at the other end of a call.

A broadband Internet connection is required. A Broadband Internet connection is a high-speed connection, typically known as "Cable Internet" or "DSL". A Broadband Internet connection is "ALWAYS ON" and supplied either by your cable company through a cable modem, or by way of your local phone company or competitor using a DSL modem.

Once a broadband connection is established, there are three ways to make a VoIP call: two alternatives require special equipment and may bypass a computer; one alternative allows calls to occur from one computer to another. A brief description of the three calling options follows:

- ATA or analog telephone adaptor - allows you to connect a standard phone to your computer or your Internet connection for use with VoIP. ATA is an analog-to-digital converter. It takes the analog signal from your traditional phone and converts it into digital data for transmission over the Internet.
- IP Phones look just like normal phones with a handset, cradle and buttons but have an "Ethernet" connector (Ethernet is a network standard of communication using either coaxial or twisted pair cable.). IP phones connect directly to a "router" and have all the hardware and software necessary right onboard to handle the IP call.

- Computer-to-Computer - requires the software, a microphone, speakers, a sound card and an Internet connection.

Some VoIP services only allow you to call other people who subscribe to the VoIP same service. Others may allow you to call anyone who has a telephone number. The person you are calling does not need any special equipment, just a phone.

Some VoIP providers allow subscribers to call other subscribers free of charge. Some VoIP providers charge for long distance calls - a call to a number outside your calling area - similar to existing, traditional wireline telephone service. Others providers permit subscribers to call anywhere at a flat rate for a fixed number of minutes.

With VoIP, you may select an area code and local exchange different from the area in which you live. If your provider charges for long distance, then charges could be based on whether you call within the calling area assigned to that area code and local exchange rather than within the geographic area where you live. Also, people calling you may incur long distance charges depending on the area code and local exchange you choose and service provided. For example, you may have relatives living in Albany, New York. If you select a VoIP telephone number with the same area code and local exchange as Albany, New York, your calls to and from your relatives living there - no matter where you are located geographically when you place or receive these calls - will not be long distance. Calls to and from your next-door neighbor in New Hampshire - from and to your Albany, New York telephone number, however, will be long distance calls.

As suggested above, VoIP is a portable service. You may be able to use your VoIP service wherever you travel provided you have a broadband Internet connection available. Generally, no additional charges apply.

Some VoIP providers allow subscribers to transfer their current landline telephone number to the VoIP service. A subscriber making such an election to “port” their telephone number, however, may not be able to transfer their telephone number back to their landline or to another VoIP provider.

Some VoIP services do not work during power outages and the service provider may not offer backup power. Some VoIP providers may not offer directory assistance or white pages.

Some services may not be able to connect to a 911 emergency dispatch center or other emergency services. Those services that are able to connect a subscriber/customer to 911 or emergency services may not be able to identify a VoIP caller’s location or call-back number for the dispatcher). This, however, may not be the case for long.

On May 19, 2005, the Federal Communications Commission (“FCC”) ordered certain VoIP providers (i.e., those connected to the public switched telephone network) to supply, within 120 days of the order, enhanced 911 services as a mandatory feature of service. In pertinent part, the FCC order requires VoIP providers to provide callers with direct connections to emergency numbers at 911 call centers (instead of connecting those calls to an administrative or non-emergency number). The FCC also ordered VoIP providers to equip their systems to electronically transmit to emergency operators a call-back number and the location information provided by the subscriber/customer to the VoIP provider. Also, the FCC stated its intention to adopt, in a future order, an advanced E-911 solution that includes a method for determining the customer’s location without the customer having to self-report this information.

The U.S. House and Senate are also presently considering legislation that would mandate VoIP providers to provide E911 access.

The following lists some VoIP providers in New Hampshire and their pricing for the VoIP component only (broadband access not included). Not all VoIP providers serve all areas of New Hampshire.

<i>Company</i>	<i>Unlimited North America</i>	<i>Limited North America</i>
AT&T	\$29.99	Local = \$19.99+ \$.04 Min LD
Dialpad	1,200 Min = \$19.99	800 Min = \$9.99
Deltathree	\$29.99	800 Min = \$15.99
Net2phone	\$29.99	500 Min = \$14.99
Packet 8	\$19.95	N/A
Verizon	\$29.95	500 Min = \$19.95
Voice Pulse	\$24.99	Local = \$14.99+ 200 LD
Vonage	\$24.99	500 Min = \$14.99

VoIP Shopping TIPS

If you're interested in trying VoIP, then you should check out some of the free VoIP software available on the internet. You should be able to download and set it up in about three to five minutes. Get a friend to download the software, too, and you can start tinkering with VoIP to get a feel for how it works. One place to look is <http://www.skype.com>.

When shopping for VoIP broadband phone services, always be cautious and read the fine print before signing up and committing to any length of billing.

Always check the billing increments, monthly service charges, contract cancellation penalties, and of course the per minute rates the VoIP broadband service provider is offering.

When receiving VoIP services always check your bill for any suspicious fees or unauthorized add-ons. Contact your VoIP service provider immediately if you notice anything unusual.

Always make sure to save your bills for future reference. An old VoIP or long distance bill can be an excellent reference tool for comparing current costs and monthly usage against past costs and usage for figuring savings or wrong charges.

Always check for VoIP 911 phone access availability, rates and what you need to do to assure that your calls to 911 from your VoIP phone will be routed to an emergency line at a 911 call center (and not to an administrative number that may or may not be answered by qualified emergency personnel or any one at all). This is very important.

Who regulates VoIP?

Historically, the FCC has not regulated the Internet or the services provided over it. In February 2004, the FCC found that an entirely Internet-based VoIP service (i.e., computer to computer) was an unregulated information service. In November 2004, the FCC ruled that VoIP services provided via the public-switched telephone network fall within its jurisdiction and outside of the jurisdiction of state regulators (i.e., N.H. Public Utilities Commission).

The FCC has organized an FCC Internet Policy Working Group to identify, evaluate and address policy issues that will arise as telecommunications services move to Internet-based platforms. For more information on the Working Group, please visit www.fcc.gov/ipwg. In the meantime, questions, concerns and complaints about VoIP services and providers should be directed in the first instance to the FCC.

WI-FI TECHNOLOGY

The term “Wi-Fi” means “Wireless Fidelity”. Instead of moving data through a network using Ethernet cable, Wi-Fi uses radio waves to move data across different frequencies.

The best way to use this technology is to tap into a high-speed Internet connection. A wireless access point remains hooked up to your wired network (broadband connection). If you have the right PC card, your laptop, PC, or personal digital assistant (“PDA”) can get the signal.

Certain cafés, airports, and universities let you tap into their wireless network so you can get Internet access on your Wi-Fi-equipped laptop. There are many places in NH (111 as of May 23, 2005) that provide Wi-Fi access. Some provide free access; at others you pay a fee. Check www.jiwire.com for locations in NH. The United States is at the top of the list of Wi-Fi locations reaching over 25,000 locations to date.

MODEM HIJACKING

With our use of technology increasing, the risks accompanying our use are increasing as well. A recent computer scam known as “modem hijacking” fraudulently adds charges on your telephone bill. To learn more about this scam and ways of protecting yourself, please visit the OCA’s website at www.oca.nh.gov or contact the OCA at (603) 271-1172.

CELL PHONE DIRECTORY

You may have heard some talk about the publishing of a wireless (cell phone) directory. Some have raised concerns that such a directory would list cell phone customers without their consent and that the directory would be available

to telemarketers and used to generate unwanted calls to cell phone customers, using up the customers’ costly air-time minutes.

The truth about the cell phone directory is that a Wireless 411 Service is planned for launch in 2006. Wireless customers will be offered, without cost, the opportunity to be listed in - or “opt into” - the existing nationwide landline 411 system. Consumers may choose to remove their number at any time without cost. No directory will ever exist, either printed, electronic, or on the internet. For more information on the Wireless 411 Service please visit www.wireless411service.com.

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If you have any ideas or suggestions for any upcoming newsletters, or have any comments regarding present or past newsletters, please contact Christina Martin at 271-1172.

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