

VoIP Quality & Stability

Most non-cellular telephone calls in the USA are now carried by VoIP (Voice over Internet Protocol). Some phone services are openly labeled as VoIP while many others appear to be traditional land lines or T1 lines, but in actuality they are VoIP behind the scenes. The advantages of VoIP over wired lines are much lower costs and more sophisticated features, including the ability to create virtual PBXs.

When VoIP was created a number of years ago, the quality was fairly poor. The quality and stability has greatly improved over the last 4 or 5 years but it is still dependent on many variable factors, some of which can cause degradation.

For details about how VoIP works: http://en.wikipedia.org/wiki/Voice_over_IP

Primary factors that users depend on for quality and stability of their VoIP are as follows:

- 1) Sufficient internet bandwidth
- 2) A router (or modem) that is designed for VoIP
- 3) Access of VoIP calls through any firewalls on user's computer

Here is a link to important requirement details:

<http://www.helpmedial.com/dialer-product-requirements>

Here is a link to test your internet:

<http://www.speedtest.net/>

In addition, VoIP telephone calls have to go through multiple routes before they end up ringing on the phone of the person called. If anything goes wrong on the way, there can be latency (delays), jitter (hiccups between words), dropped calls, etc.

Here is a link to the real time stability of phone service routed among the many VoIP backbone carriers:

<http://www.internetpulse.net/>

Internet service continues to get better and better across the nation; therefore, helping to improve VoIP call quality and stability. but...

If your internet service goes down, your VoIP phone service goes down, too.

When there is ample available bandwidth, calls usually go through properly, but if other people are using much of your internet bandwidth at the time you are trying to make calls, your calls may suffer.

If your router is not designed specifically for VoIP or if it needs to be rebooted, your calls can suffer until a VoIP compatible router is installed.

Plus various servers and connections through which your calls travel in route to their destinations can have brief, intermittent, or long term problems. Calls that go through a specific carrier having a problem at that moment will likely result in a deficient or failed call; however, immediately thereafter, a call may be successful because it is using a different carrier or route. VoIP carriers frequently have to re-route calls around problems. If no one reports the problems and fixes them, the problem may continue for awhile or it can clear up at any time. There are currently about 177,000 telephone prefixes (the first 3 numbers after an area code) and more are being added as the demand for cell phone and VoIP phone numbers continues. Some carriers do not always promptly add those new prefixes to their systems, so calls to those prefixes fail until the carrier adds them.

Example of dependency on internet service: When you try to go to a web page on the internet, that page can pop up almost instantaneously, but the next time you go there it might be slow to pop up. You probably don't mind because it was only a few seconds. But, when a VoIP call (which is composed of digitized voice packets) is attempted, if it encounters that same internet delay (latency) to its destination, the call can drop or the sound of the voice may be "broken up" or "jittery" because the voice packets have slight delays between them. VoIP is therefore not as forgiving as just waiting for a web page to load visually.

Actually, considering all the above, VoIP is amazing! It's a wonder that it works at all!

VoIP is not perfect and may never be, but EVS is working hard to make our ZoomCalls VoIP Phone Service the best that current technology will allow.