

## 8. VoIP Quality

There can be lots of reasons for poor VoIP call quality. Here's a few of them.

Poor call quality is not usually the fault of the VoIP service provider (VSP), although it can be. Let's not forget that for VoIP to VoIP calls that if you connect via a VSP that the rest of the call is not routed through their network. For calls to PSTN numbers (regular landline and mobile numbers) the quality of the PSTN leg, wherever that might be routed through and end up, is not within the control of the VSP, unless they have chosen to route/terminate their calls via an unreliable Telco.

There are other issues which can affect the quality of a VoIP call:

1. The quality/latency of your connection to the web, which is down to your choice of ISP. (VoIP over a non-line of sight, non-WiFi hotspot, broadband wireless connection can have the same issues as VoIP over any other type of connection, as well as particular issues that are mentioned in point 9.)
2. The quality/latency of the other person's connection to the web if you are doing VoIP to VoIP, which is down to their choice of ISP.
3. Your choice of codec, as some codecs will give higher fidelity sound than others, although none of the commonly used codecs will give lousy sound quality, all other matters being equal. (The codec that you select on your softphone or VoIP hardware device must match one that is supported by your VSP. If you are still having a call quality problem after having tried all the other ways listed on this page of fixing it, then have a look at the following thread where the further matching of codecs through to the end point of your call is discussed in some detail: [forum-replies.cfm?t=423641](#) )
4. If you are using a softphone or a USB ATA, whether or not you are running too much other stuff on your computer thereby slowing down its processor too much. Similarly, whether your computer's processor is fast enough.
5. If you are using a softphone or a USB ATA, whether or not you are using one of the better sound quality/echo options of using a noise canceling microphone, a USB headset or USB phone, rather than a regular headset that plugs into your sound card.
6. Whether or not you have enough bandwidth available to make a good quality call. That will depend on your choice of codec and whether or not you are running other applications/computers which are accessing the web via the same internet connection which you are using for the call. QOS software/firmware can prioritise your VoIP traffic to ensure you have enough bandwidth available for your calls; also some ISPs support QOS over their networks. Similarly you can simply ensure that no other application/computer is accessing the web while you are making your calls, thereby achieving the same result as QOS.
7. Whether or not you have echo cancellation firmware/software, and whether or not you use it. Similarly, whether or not the speaker volume on your IP Phone / regular phone plugged into an ATA / USB phone / ATA / headset or softphone is too high, thereby resulting in feedback induced echo to the person to whom you are talking.