

One way audio calls

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One way audio call is a common problem in broadband telephony (VOIP). The person you are calling can hear you but you can't hear them or visa-versa.

There are two reasons for experiencing one way audio.

1. A phone problem.

This is more usual in the case of a soft-phone. Check your speakers and microphone are plugged in. Make sure other applications which use audio are closed. You can test your audio setup with the 'Audio Tuning Wizard' on the x-lite soft phone by right clicking on the menu beside the 'CLEAR' button.

2. An internet routing problem.

You may find that some call cases have one-way audio while others do not. For example calls from your phone are ok but calls to your phone have one-way audio. The most common reason for this type problem is the setup of your home network - most typically the type of router you are using and the configuration it has.

*Some common causes***Firewalls.** It's recommended to disable your firewalls while you are testing for one-way audio problems. You typically will have a firewall enabled on your broadband router, If you are using a soft-phone, you may also have a firewall activated on your PC - both of these should be disabled. Once you have found the source of the one-way audio please re-activate your firewall with the appropriate settings for allowing calls take place (see your owners manual).

Routers. This is the most common cause of one way audio. All home broadband routers have a device built in called a NAT (Network Address Translation). The NAT inside your router allows you to connect many devices using a single internet (IP) address (Your IP address identifies your device on the internet). The NAT is designed for initiating connections out to the internet and can have problems with connections coming from the internet to you. To get over this problem there are three methods you can use UPnP, STUN and Symmetric RTP (see [Support Center](#) » [Knowledgebase](#) » [Glossary of terms](#)). You may have implemented one of these methods to get around the problem caused by a NAT but due to the many types of NAT available sometimes these methods will fail even if you can register your phone and some calls work.

Normally with a router problem the other party will hear you but you will not hear them (incoming audio routed incorrectly).

Here's some things you can do to resolve this issue

- Make sure you have the latest firmware in your router.
- Check all your settings are correct in your phone.
- Disable other phones on your network. For example if you are using a hardware phone and soft-phone this may cause problems.

- Try a different method for NAT traversal - If you are using STUN then turn it off and your phone should default to symmetric RTP (note: your phone must support symmetric RTP - refer to your owners manual).
 - Try a different phone. If you are using a hardware phone, check if the software phone works. As there are different types of NAT's it is impossible to recommend a particular phone as the problem will be determined by the phone/router combination.
 - Make sure you are not cascading NAT's ie. placing one router behind another, your DSL modem may have only ethernet one port but it probably has a built in router. You can normally stop your DSL modem from being a router by placing it in 'bridged mode' (refer to owners manual).
 - Manually setup your router. Some routers are just not suitable for VOIP. Try to re-configure your router and place your SIP phone in a DMZ (demilitarised zone) OR setup a virtual server and forward the correct ports to your local IP address. (configured on your SIP phone - typically 5004-5060). Refer to your router manual to do this.
 - Change your router. . The best type of router is one that can act as a VOIP gateway, this will have the added benefit of improving the quality of your broadband calls these are normally SIP aware and can even fix bad quality VOIP phones. look at [ez-connect - general information](#).
 - Use a telephone adaptor with built in router. If you are doing this make sure to place the adaptor/router on the public IP address.
- Incompatible/Faulty Phone.** If the problem seems to go away and come back at random you may have a faulty phone or a poor implementation of STUN, UPnP and Symmetric RTP. If you have a problem when making/receiving calls from a particular freespeech phone user *all of the time*, then this is an issue with the phones (even if you have not got problems with others).
- To fix this problem you or the other client should replace their phone.