How to fix slow broadband speeds

Here are the steps you can take yourself to diagnose and fix broadband slow speed issues. Please follow the instructions carefully and in the order shown.

You may also want to get a BT Broadband Accelerator. Although a speed increase isn't guaranteed, tests on 36,000 lines showed that an I-Plate will boost line speeds on average by 1.5Mbps.

Step 1: If you are using a modem, please check you are using the latest drivers.

- If your modem was supplied by BT, you can download these from http://www.btyahoo.com/drivers.
- If your modem was not supplied by BT, please refer to your modem manufacturer's website.

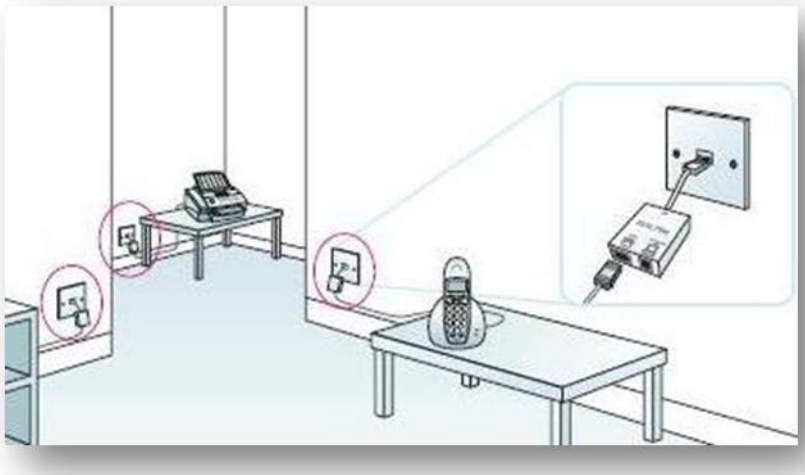
Router owners - you do not need drivers, please ignore this step.

Step 2: Check your broadband connection (line) speed

- Your connection speed (or 'line rate') is the speed of your phone line between your router or modem and the local exchange. It is determined principally by the length of your line and its condition. (Note that old wiring is more susceptible to interference and faults.)
- You can find out your line's connection speed by accessing your router or modem's configuration pages. Do this by typing into your web browser either the IP address 192.168.1.1 (for BT Voyager and Speedtouch routers) or 192.168.1.254 (for BT Home Hubs). On the displayed page, look for the term 'connection speed', 'line speed' or 'line rate', which will usually be shown in Megabits or Kilobits per second (Mbps or Kbps). Please note this speed for later comparison purposes.

Step 3: Check for faulty microfilters or phone equipment

1. Unplug all your broadband microfilters and phones except for your broadband router or modem and its associated microfilter. You should include all corded and cordless phones, fax machines, Sky set-top boxes, and any phone-connected burglar alarms.



2. Restart your router (switch off, wait 30 seconds, then switch on) or modem (reconnect to Internet), then recheck your connection speed as in Step 2 above. Before taking the speed reading, you must refresh your browser page (press the 'Refresh' button on your browser toolbar, or hit F5). If your connection speed increases, this suggests that one of the devices you have removed was generating interference and was causing your broadband service to slow down to compensate.
3. Reconnect your microfilters one-by-one, then reconnect your phone devices one-by-one, **repeating between each the speed test described in Step 2** (remembering to refresh your browser each time). Again, if you connect a device which is causing interference, you should see the connection speed drop (you can then double-check this by disconnecting the faulty item before repeating the speed test in Step 2. It should revert to its previous speed).
4. We recommend you leave the faulty device permanently disconnected or arrange to replace it. (You can buy more microfilters at many electrical retailers or order from www.bt.com/shop by calling 0800 800 150)
5. If no faulty microfilter or phone equipment has been detected, proceed to Step 4.

Step 4: Check for faulty home internal phone wiring

Poorly-installed home phone wiring or poor quality phone extension leads (often with a flat rather then round cable profile) are the most common causes of slow broadband speeds. This is because they are more prone to electrical interference, which causes BT Broadband to reduce data speeds to compensate. You can test for this as follows:

1. If you have a phone master socket like the one in the photo here (that is, square with a horizontal groove halfway down it, and removable upper and lower cover), we recommend you remove the **lower cover** as shown, taking care not to dislodge any wiring. **Do not remove the upper cover.** This will reveal a test socket on the right-hand side. This connects directly to the exchange, bypassing your home phone wiring and extensions.
2. Plug your router or modem directly into this test socket via a microfilter.
3. Recheck your connection speed as per Step 2 above, ensuring you refresh your browser page first. If your connection speed has increased significantly, this indicates a likely fault or interference source within your home wiring. If it remains unchanged, this indicates either no fault, or the fault or interference is more likely to be in BT's wiring or in your local exchange.
4. If you do not have a master socket of the type shown above, or cannot plug your router or modem directly into it, we recommend you minimise the length of any phone wiring between your master phone socket and your router or modem, avoid the use of flat or aluminium phone extension leads (go for round copper cable instead, which may sometimes be marked 'DSLMax-compatible'), and route cables to avoid areas of electrical interference such as near power cables, digital phones, microwave ovens, Christmas tree lights, high-wattage equipment, halogen lighting and so on.

Step 5: Connection speed v throughput speed

The tests above measure connection speed – the maximum data speed your phone line can support. Fluctuations in it usually indicate possible wiring or interference issues, either in BT's network or your home phone wiring. However, the speed at which you see web pages or download files is determined by more than just the speed of your phone line – this is also governed by the speed of your computer, congestion in BT's network and in the Internet, and speed of website servers.

This end-to-end speed is measured by 'throughput' speed - the actual rather than maximum speed your data is travelling at in given moment. Throughput is the speed reported by most online speed-test websites. It is normal for your throughput speed to reduce significantly between 5pm and 10pm daily, as this is the time when BT network and Internet congestion is at its heaviest (rather like the rush-hour on a motorway). You can test this by carrying out a speedtest (for example, at **http://speedtester.bt.com**) at, say, 7pm (in other words. during the peak) and again at 11pm (after the peak) to compare the difference. Note that a slow throughput speed is not generally an indicator of a line fault.

Important note about speed tests

Every time you switch off or reconnect your router or modem, your broadband service refreshes your connection speed. Note, however, that where this has increased, your throughput speed will not increase for a further 3 days. This is a to minimise the risk of data loss which would occur if the exchange tried to send data down your phone line at a faster rate than it is capable of handling.
To avoid this happening, your exchange waits for three days of consistently higher connection speeds before it will increase the speed at which it passes data down your line. Also note that if your connection speed dips for any reason during the three-day period (eg. due to electrical interference or a fault), the exchange will restart the three-day period.

For these reasons we recommend you leave your router switched on all the time, and avoid measuring your throughput speed until three days after you last switched on or rebooted your router or modem.