Speed Testing your connection.

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SPEED TESTING

In order to make sure we give you the best connectivity, we have put effort into testing connections and looking at methods of testing them. This article will date as speeds increase but as of 2019 this is how we see it:

For FTTC broadband then generally there are aren't too many issues testing but the points below still apply. As the connections get faster and FTTP becomes more commonplace, the issues with 'delivering the number' on a single machine start to mount.

So with this in mind, as connection speeds increase this is our minor wisdom:

Faster link gives reduced latency and reduced jitter - this is important for voice and video communications and gaming. It is not important for streaming video as that is buffered so the latency / jitter don't matter.

A Faster link will let more things happen simultaneously without affecting each other. For example, a PC with Anti-Virus on it may not achieve more than 250 / 300Mb/s on a genuine and empty 1Gb/s link - that does not mean that another machine in the same network can't do the same at the same time.

"It's not us, it's you"

WiFi - we love WiFi but there is WiFi and WiFi! This is not a discussion of range, frequency, interference, channel crowding, standards and the rest. Suffice to say WiFi can deliver XXXXXMbps but that does not mean that it will - you may be limited to 30Mbps or have packet loss from interference.

For testing the 'connection' connect with a network cable, preferably, direct to your router or firewall.

Network interface on your computer - the network interface on your PC can have a dramatic effect on speed tests - particularly affecting download. This is particularly noticeable on USB network interfaces, They can connect at 1Gb/s but that does not mean

that they can deal with that level of throughput. The chipset that the controller uses has an effect, newer is generally better. We are not about to recommend Intel over Broadcom or vice-versa. For laptops, we have seen a dramatic difference between an external network adaptor and an adaptor built into a manufacturer provided 'dock' which gave the best results for any non-10Gb/s machine we tested.

Anti-Virus on your computer - This can (depending on the types that we have tested) more than half the speed that you get on a PC. We have had significantly better throughput from a phone than a new top spec machine both using AC WiFi. In order to test gigabit links, we were forced to disable AV scanning to deliver speeds.

Firewall traffic analysis - A UTM firewall can easily be reduced to 10% or less of its maximum throughput by turning the traffic analysis up to the max - you may wish to check the CPU utilisation on the firewall if you are not getting the throughput you expect.

"Well, it may be us"

We are not infallible and it could well be the link not responding properly or may be suffering from packet loss - in which case it is a fault and should be fixed - Openreach sometimes disagree about what is broken but we are clear that "packet loss on a link that isn't full, is an issue".

We may be suffering from link congestion, though we manage our bandwidth to ensure that we really shouldn't. We do see congestion on third-party networks delivering broadband and these can be seen from a number of customers served from the same exchange all having similar issues at the same time when other users don't

If we have a problem then we are very keen to fix it.

Speed testing links

- We notice that anti virus software is often an issue to getting a faster test result
- We notice that testing on wifi 'may' not deliver an accurate result of the link speed
- We notice that on Windows 10 the speedtest.net app often performs noticeably better at testing higher speed connections than the regular browser.

here are a couple of speed test links

http:\speedtest.net

http:\speedtest.ic.net.uk this is html 5 and works on phones without needing an app.

Online URL: https://kb2.ic.uk/article.php?id=256