

## **Factors which may affect my broadband speed?**

One of the main reasons is that **all** broadband is contended. The contention or more commonly known as a "contention ratio" is basically a word for sharing.

The "contention ratio" is the maximum number of other people you will have to share the connection infrastructure with. In this case, we will assume a contention ratio of 48:1. This would mean that the maximum number of people you could be sharing the connection with at anytime is 47 other people. If all 48 people were downloading at the same time then your download speed could drop hugely, in reality though this doesn't happen. This is a theoretical worst case, and in fact, all broadband works on a principle that individual users do not make unreasonable traffic demands that are outside acceptable usage; and as a result you can enjoy much faster download speeds than the worst case.

So from this you can see that a contention ratio of "48:1" is shared among users, but the occurrences that if all 48 customers are utilizing a network connection simultaneously are exceptionally rare.

However, there is likelihood that you are sharing simultaneously with a few customers, for instance 3 others. For this example, if we use 4 customers on a 10 Mbps package and all are using the service simultaneously – then each user will receive 2.5 Mbps or (10Mbps / 4 users)

So when you visit speed test servers such as ours at <http://derry.speedtest.net> and click test, you will see what your speed is at that exact time.

If you were to test again, more than likely you will get a different speed result, depending on your own usage within the house, depending on the network usage and typically we would consider prime usage time from 6pm till 12 midnight.



If you were achieving speeds of 5Mbps on a 10Mbps package, then typically we would say you are at that time contended 2:1. With the best possible contention 1:1 and worst being 48:1 we would suggest that a 2:1 contention is quite acceptable for a contended service.

### **Additional Factors other than contention**

Please bear in mind that wireless signals have their own limitations. We keep our broadband sites as high as we can, however if there is foliage (trees and bushes) in the path between your premises and the broadband site – the signal to your house will be adversely effected, and we cannot provide any guarantee of service. These are referred to as No Line of Sight, and as a rule we do not support this type of installation. If, as a result of time, trees grow up in the wireless path, we encourage that a local arrangement is made between yourself and the owner of the trees to resolve the issue.

Additionally, similar to ADSL and distance from a telephone exchange, the further your premises is from our broadband site, the lower the data rates the radio equipment can support, resulting in slightly less speed or throughput. This is most evident in high capacity circuits that are delivered far from transmitter sites. In these cases, every effort is made leave the system at its peak performance at time of install, however the laws of physics are constant, and if the package chosen is more than the wireless equipment can deliver, then the peak package may never be reached.

Remember Wireless within your house! And that while you are enjoying the online experience, so may your other home devices such as; phones, Ipad/Iphone, games consoles, computers, TV's and other entertainment devices. When looking at speeds please remember that these can all be using your broadband without you realizing! Please also ensure that your wireless router is secured with a Strong password and uses WPA2 or similar to ensure that your neighbors are not enjoying the free use of you broadband without your knowledge!



*If you are not happy with the contended service and wish to move to a business package with less contention, or a dedicated service with no contention, please contact our sales department and they will be more than happy to deal with your query.*

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