

## **Broadband Mini Primer**

It is true to say that the Internet has gone through a revolution in the UK with the advent of broadband. There are now more users with it than with dialup and BT claims (almost) all exchanges are now broadband enabled. More recently we have seen the advent of higher speed links even outside of the metropolitan centres

### **What is broadband access.**

Broadband access is an always on, high speed Internet connection. For most gone are the days when you will have to dial your ISP and go through all the warbling noises and error messages, the Internet is instantly available to you.

For the great majority of users, there are really only three high speed technologies in the frame at present.

ADSL (Asymmetric Digital Subscriber Line) - supplied by BT & others

Cable modems - supplied by cable companies

ISDN (Integrated Services Digital Network) - supplied by BT & others

ISDN isn't really broadband and cannot be considered the media of choice because the user is still charged for the time on line. If a leased line is a realistic solution, then you will be in a company, and will need to leave the choices to the IT dept (if you don't have an IT dept, get in touch with us!).

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There is a fourth option, Satellite broadband. However if you have any other options they will be cheaper since prices are typically around 20% higher than an 8Mbits/s wired connection. Whether they would be faster depends on whether you can get typically more than 3.6Mbits/s from a wired link. In rural areas it may be your only broadband option.

Using ADSL or Cable Modems, you should be able to connect from speeds of 128Kbits/s, up to 50Mbits/s with Virgin and 24Mbits/s with Be Broadband. With ISDN you get 64Kbits/s using one channel and 128Kbits/s using both channels, although you will be charged for two calls if you do use two channels.

There are, of course, one or two caveats regarding the services. The ISP you sign up with should be able to give you a contention ratio for the service. This is the maximum number of users per circuit.

Because of contention, during peak times the connection will probably slow down. The current ratio for business users is set by BT at 20:1, which means that up to twenty other users may be sharing the same bandwidth. The current domestic ratio is more often 50:1, and these ratios will not change unless the local loop is un-bundled at your exchange since all ISP's have to use BT gear at present. With cable modems, each user is technically part of a wide area network, so it depends on how many other users are connected.

More recently we are seeing the rollout of BT's 21CN network, which should enable ISP's who do not have local loop access at the exchange to offer speeds 'up to 24Mbits/s'. The key here is 'up to' as you may in fact not see an awful lot of difference in speed between a theoretical 8Mbits/s connection and an up to 24Mbits/s. A lot relies on your distance from the exchange and the quality of the cabling both outside and inside your property. If you are more than 4kms from the exchange you won't see much improvement.