

## Benefits of Leased Lines for Businesses

Imagine, if you will, that your Internet connection is a busy motorway, with numerous other users zipping “to and fro”. At rush hour it’ll take you a lot longer to complete your journey than at quieter times. This varying service level can have significant business impacts, leading to lower levels of computational and communication efficiency.



But there’s more. What happens when there’s an accident, or the local council wants to carry out maintenance? Suddenly the problem gets worse. Traffic might even stop entirely under such a scenario.

In today’s agile business environment even being cut off for short periods of time can have a significant impact on bottom-line results.



Fortunately, companies no longer need to survive the vagaries of such a service, which is where a leased line can come in.

In brief, a leased line is defined as a dedicated telecommunication line between two or more locations. Sometimes known as a private circuit, renting a leased line is rather like having your own private road. No longer must you compromise on service as you have full and complete control of both the speed limit and traffic levels. As a result, your company can continue to operate effectively at all times, irrespective of your ever-changing business needs.

Here are some of the most mission-critical benefits of investing in a leased line for your business...

### SYMMETRICAL TRANSMISSION

Most standard Internet connections are designed to download data much faster than it can be uploaded. In a domestic environment this makes perfect sense – most consumer’s access websites and social media far more than they upload data. However, in a business environment such an asymmetric connection can hamper results.

Examples can include the use of VoIP telephony services, regular data backups, the push-pull nature of financial trading terminals or where there are dozens or hundreds of people using the same service.

For many data-heavy businesses a symmetric transmission system can be more effective, something which typically comes as standard with leased lines.



### FASTER SPEED



Each packet-carrying communication line has a maximum bandwidth limit. With most shared connections (such as ADSL) this is split among a multitude of users. As a result, many companies suffer from an overall lack of speed.

Going back to our analogy of the road, our leased line is rather more reminiscent of a private road. We have it to ourselves – with no interruptions and no other traffic – so we’re able to travel along it at much greater speed due to the lack of impediment.

Leased lines are typically available in a range of different bandwidths, and you are able to choose the most suitable solution for your needs. In some cases, such as leased lines from Numberite, it is even possible to increase the bandwidth in time, providing a flexible system which can grow with your business needs.

## LOWER LATENCY

Latency can be a challenging concept and is the delay in data being sent and received. If you have been comparing business broadband solutions, then you will have no doubt found that the majority of lines are sold on the basis of bandwidth – but this is hardly the whole story.



Latency is the delay in time it takes for each element of the data to be received or send. This is best explained with the following analogy; imagine individual Lorries each can carrying an amount of data at one time, this is the bandwidth or load they can carry. As more Lorries are required (i.e. more data) the traffic can slow the arrival and leaving of the data. This delay is the latency and measured in milliseconds can affect how quickly your data arrives and leaves. The higher the latency the slower data is sent and received.

In other words, low latency means faster transmission. So while high bandwidth is beneficial for transmitting large files (such as video conferencing), it is latency which can be a major driver in how quickly data actually arrives. For situations such as VoIP telephone systems, or financial trading, a low latency line is critical to maintain service standards.

Fortunately, in general leased lines tend to offer far lower levels of latency than standard business broadband.

## CONTINUOUS CONNECTION SPEED

As a final benefit, consider that the total available bandwidth of a network such as the BT cabinet or exchange is shared among all the users in a location or town and their multiple devices. This means that maximum bandwidth levels can change over time with demand.

This can result in data being transmitted more slowly at some times than others, leading to “lag”.

The issue is worse with country locations where the exchange or cabinet will have limited available connections; low requirement but also low availability of service.

Such an inconvenience is however largely dispensed with when using a leased line, where all the bandwidth is dedicated to your establishment alone.

As you can see, while there are of course cost implications to consider, leased lines can offer significant benefits to those companies and institutions who need to be certain of the highest quality connection possible.



## HOW MUCH BANDWIHTH DO I NEED?



Leased lines are supplied with two figures such as **100/1000Mbps**. The first number is the **upload and download** speed of the connection so **100Mbps** upload and **100Mbps** download; leased lines are symmetrical. The second number is the available speed on the line or the “Bearer” which is the maximum speed the lease line can carry; in our example this would be **1000Mbps**. Therefore should you see **1000/1000Mbps** this is a **1000Mbps** upload and **1000Mbps** download, which is also called a full-Gigabit service.

The bandwidth you require will depend on the number of people and devices sharing the line at one time best explained with this example:

We have a Caravan park with 100 lodges. Each lodge could potentially house 4 people giving 400 visitors. If each lodge has a smart TV and all want to watch catch-up TV or Netflix or similar on laptops, tablets or smartphones, there is a minimum requirement of 3Mbps per lodge and you would therefore want to specify at least a 300/1000Mbps connection. 3Mbps would be OK for standard definition viewing, this goes up to 5-8Mbps for high definition. While you may not imagine all 100 lodges doing the same thing, there is an expectation of freely available high-speed broadband, for streaming from multiple devices.

To discuss your requirements and Lease lines please call Numberite on 01392 241666.