



# **BROADBAND**

## **SOLUTIONS**

# Robust & Reliable Business **Broadband**

We only connect to Tier 1 partners, including Openreach, BT and Talk Talk Business, ensuring a robust and reliable service.

## Complete flexibility:

- Monthly rental pricing
  - Minute bundles
  - Contract length
  - Unlimited, business grade broadband and fibre packages
- Competitive call rates
- Comprehensive support from our experienced fixed and data team

We have the full range of single analogue, multi analogue and ISDN2/30 lines so that we can offer a solution for every business customer regardless of their size. We have one broadband package (up to 20Mbps download and 1Mbps upload) and two fibre packages – 40/10 and 80/20. They have been designed with business use in mind and come with unlimited data, so that you do not have to worry about incurring overage charges.

We have everything you need in one place, if you are unsure about what solution is appropriate for your business, then please do contact us.



# Broadband Explained

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At first, some of the terminology may seem a little confusing so we'll go through the basics.

## Landline

Everyone is familiar with the everyday analogue telephone line. It is sometimes referred to as a PSTN Line (Public Switched Telephone Network) and is the most common type of installations from consumers to business. A typical installation would see it installed in your premises, using the ordinary copper network and terminated at a white telephone socket sometimes called the NTE, or a Master Socket.

## Premium Landline

The premium landline includes a higher, level 2 care package. Please refer to our Service Level Agreement for full details on the care packages and service levels that apply to fixed.plan.

## ISDN2e

Integrated Services for Digital Network (ISDN) is installed into your premises using the standard copper pairs that a normal telephone uses. The key difference is that it is capable of carrying more than one service. Rarely now, but historically it was often used for higher speed internet access back in the days of the old modems. Now it is generally just used for phone calls. The key attraction with ISDN is that it can carry more than a single call, ISDN2e will carry up to two, it also allows for the addition of extra numbers often known as DDI's or Direct Dialling Inwards.

To utilise an ISDN an internal PBX is required. Often up to 4 ISDN2e will be installed giving up to eight simultaneous calls. However, with a PBX there may be many more internal extensions and desk phones, as rarely is everyone on the phone at the same time.

## iSDN30

Offering similar services to ISDN2e, the major difference is that an iSDN30 is provided using Fibre Optic cable to the premises and as the name would suggest, is capable of supporting 30 channels. The channels can carry both calls and data, the latter being less common.

Availability of iSDN30 can be a major factor in rural and suburban areas. The infrastructure is rarely already there so must be installed for the customer. This often entails "blowing" or installing a new Fibre in the street back to the exchange and is charged per meter. These "excess construction charges" can often run into the thousands, which is in addition to the normal installation charges.

**Although termed "30", this is the maximum channel capacity and there is no need to have all 30 activated. There is a minimum however of 8 which aligns with the general cut of point of 4 x ISDN2e = 8 and is the next logical step.**

# Data, Internet & Broadband

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The term “broadband” is essentially an overarching term used for the provision of high speed internet connections to customers premises, using a wide variety of technologies. Some of these technologies will be more familiar, such as the more consumer focussed and very common ADSL (provided by BT, O2 and PlusNet etc.), other more business orientated options such as EFM may be less familiar.

## Bandwidth

Bandwidth is the amount of information that can be transmitted down the internet connection at any time. The more people using or sharing your broadband connection, the more bandwidth you will require. Two figures are often stated such as 80/20 FTTC, in this instance, the 80 being down and the 20 being up and FTTC the product type;

## Download or Downstream

The amount of information you can access from other sources.

## Upload or Upstream

The amount of information you can send to another place.

It might come as no surprise that in general people download more information than they send. This is the reason why on the majority of connection types, the download figure is the higher of them.

## Asymmetric or Symmetric

It sounds more complicated that it really is; as mentioned, generally the majority of users will download more than they upload, but this is not true of everyone and some need just as much upload bandwidth.

### • Asymmetric – The download speed will always be greater than the upload speed

- ADSL
- FTTC
- FTTP
- Cable Broadband

### • Symmetric – The upload is equal to the download speed or (Symmetrical)

- EFM
- SDSL
- Fibre
- Contention

Back at the exchange users are “grouped” together. Generally for businesses, 20 connections share bandwidth together and this is known as the contention ratio or 20:1. If all use their connection heavily none will achieve their maximum speed. An un-contended or an Assured product ensures the user receives 100% of what they are paying for.

## **VoIP and Broadband**

As with everything, the transmission of a VoIP call over the internet utilises bandwidth. As a call is two way information sent in both directions, it is obvious that the emphasis on download for most products could be a problem here. Additionally, if the broadband connection is being heavily utilised for data, there might not be enough for the VoIP, so a dedicated connection is usually recommended. Even more so an uncontended assured product may be required.

## **ADSL**

ADSL has been around for a long time and has seen several revisions in its time as speed has gradually increased. The standard offering these days is ADSL2+ which has a download speed of 24Mb and an Upload speed of about 1.3Mb.

These speeds however are always stated as an “up to”, as varying factors can reduce the speed of the connection. The main factor being the distance of the customers’ premises from the actual telephone exchange because the signal breaks down over long distances.

## **ADSL Annex M**

Works the same as ADSL however a portion of the download speed is traded off for upload speed, increasing to about 2.5Mb. An ideal line for a small VoIP phone system to sit on.

## **FTTC**

Often advertised as BT Infinity or SFBB (Super Fast Broad Band) it is often written as FTTC or Fibre To The Cabinet. This new addition to the broadband family offers speeds of up to 80Mb download and 20Mb upload. The difference is that the copper wire only needs to take a signal from the premises back to the first green cabinet in the street, a much shorter distance. From here it is converted and sent the rest of the way over a Fibre Optic connection, which is not affected by distance or signal breakdown.

## **FTTP**

Similar to the above, however this time the Fibre Optic cable reaches all the way to the actual customer’s premises giving up to 300Mb download and 30Mb upload. This package can be quite costly and availability is currently limited, so one to recommend on caution.

## **SDSL**

Similar to ADSL - Symmetrical DSL works using very similar technology however the up and down speeds are as the name would suggest, the same. With a top speed of 2Mb it is a fairly redundant option however, it does work well over longer distances.

## **EFM**

An EFM line is also symmetric. EFM makes use of a standard pair of telephone lines to achieve a connection, but the actual speeds are fairly low at around 2-5Mb. multiple pairs can be “bonded” together increasing the speed reaching around 40Mb, making it a flexible option for companies that are expanding. New technologies also make this fairly redundant however it is an uncontended product meaning it does have a niche position in the market and again is ideal for VoIP.

## **Fibre**

Fibre or leased line is a direct fibre connection purposely installed for the customer. Speeds run from 1 to 1000Mb in both directions. Installations can be costly with high “excess construction” charges. This product really is focused for the high end corporate installations.

**please contact us if you  
have any questions..**

# Standard Lead Times

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The standard lead-times are detailed below:

Options	Lead Time
Install of new ADSL broadband	5-7 working days from the order being placed.
Install of new FTTC	10-12 working days from the order being placed.
Upgrade from ADSL broadband to FTTC	10-12 working days from the order being placed.
Line only Installation or Transfer:	10-12 working days from the order being placed.
Simultaneous Provide	10-12 working days from the order being placed. If the customer is having a brand new line installed at their premises, we will always endeavour to provide both line and ADSL / FTTC at the same time to reduce inconvenience to your customer. Unfortunately, under certain circumstances it is not possible to place a simultaneous order & on some occasions the simultaneous line order may fail to match with the broadband order, in these instances the broadband would be supplied as a new install after the line installation is completed.
Simultaneous Transfer	10-12 working days from the order being placed. If the customer is transferring from a provider outside of the Openreach network such as TalkTalk or Sky, we will always endeavour to provide both line and broadband at the same time to reduce inconvenience to the customer. Unfortunately, under certain circumstances it is not possible to place a simultaneous transfer & on some occasions the simultaneous line order may fail to match with the broadband order, in these instances the broadband would be supplied as a new install after the line installation is completed.

( In all instances, once plan.com has the confirmed installation or transfer date we will inform the partner & customer )





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