



Getting an interim basic broadband service guide

Satellite broadband subsidy scheme

What is basic broadband?

Basic broadband is described as being a service that is capable of download speeds of greater than 2Megabytes per second (Mbps).

What is the scheme for?

This scheme has been designed to provide support to the homes and businesses that are unable to receive broadband speeds in excess of 2Mb per second and who will not be benefitting from the superfast broadband roll out.

Why is there a subsidy available?

The national broadband scheme identifies what the maximum costs should be for a service. For basic broadband this cost has been set at £400 per year. This means that a premise should not have to pay more than £400 over a 12 month period to access a basic broadband service. This cost represents the monthly charges, installation, hardware and activation costs. The subsidy scheme helps make basic broadband affordable for many premises by contributing towards the costs of the equipment and the installation.

Why can I only have a subsidy for satellite broadband?

As part of the contracts to deliver superfast broadband, the suppliers were required to provide a solution that will give 100% of premises within an area covered by a contract access to a minimum of 2Mbps. The only solution that is available to nearly 100% of premises within the UK is satellite broadband and therefore this solution was presented by the supplier (in this case BT) as being the technology that could be deployed.

What are my other options for better broadband?

You may already be able to access superfast broadband services. You can check current and planned availability of superfast broadband services in Oxfordshire elsewhere on this website: <http://www.betterbroadbandoxfordshire.org.uk>

You may be able to get a 4G mobile broadband connection. You can check current availability of 4G mobile broadband services at the Ofcom Mobile Coverage Checker: <http://tinyurl.com/of6zmkw>



In some parts of Oxfordshire, there are local wireless broadband service providers. You can check whether they cover your area at their websites:

Sugarnet: <http://www.sugarnet.co.uk/>

Village Networks: <http://www.vnworks.net/> Tel: 0845 6860869; Village Networks Ltd, Maids Moreton House, Buckingham, MK18 1SW

If you are a local wireless broadband provider in Oxfordshire and would like to be added to this list, please email us your name and website address to: broadband@oxfordshire.gov.uk

How does the scheme work?

If your home or business is eligible your local project will provide you with a subsidy code. This subsidy code will allow you to receive up to £300.00 to cover the costs of hardware and installation of a satellite broadband connection. You will be able to choose from a number of retail service providers and from a variety of packages to suit your budget and needs.

What will I pay?

The available packages will vary in price depending on retailer and on what amount of data you would like access to. At present the average satellite broadband customer subscribes to 10GB of data per month. The subsidy code will pay for your hardware (the dish, cabling etc.) and will contribute towards the installation costs. You may be required to pay an additional amount for your installation and a connection fee (usually between £15 and £40). You will then be responsible for the monthly payments. These will start at about £20 and go up to £60 or £70 depending on how much data you would like to buy.

Is there a contract?

You will sign a contract with your chosen retailer. You will need to commit to a minimum of 12 months contract. If you want to terminate your contract within the first 12 months you may be required to pay an early termination fee and be required to repay the government subsidy that you have benefitted from (up to £300).



What will the scheme provide?

The scheme will provide a 'voucher' (in the form of a unique code) that you will be able to present to one of a selected number of retail service providers to obtain a satellite broadband service.

You will need to place an order with one of the selected retail service providers, and enter into a contract for satellite broadband services provision for a minimum period of 12 months.

The voucher will cover most of the cost of installation and commissioning of your satellite broadband service. You will be responsible for paying any remaining cost of installation and commissioning (if any), for choosing the features of the satellite broadband service you require, and for paying the monthly subscription for the service you have selected, and for paying any VAT on the amounts payable.

The voucher does not have a specific fixed value, but when used to obtain a satellite broadband service from one of the selected retail service providers, the use of the voucher will reduce the total cost (i.e. installation and commissioning costs plus 12 monthly subscriptions) by up to £300. The voucher has no other value, and cannot be redeemed in any other way than through the scheme.

When can I apply?

The scheme is available now in Oxfordshire and will be available for applications until the end of 2018.

You can apply to benefit from the scheme by completing an application form at:

<http://www.betterbroadbandoxfordshire.gov.uk/satellite>



Will I be eligible to benefit from the scheme?

You will be eligible to benefit from the scheme, and will be issued with a voucher, if you currently experience poor broadband speeds (i.e. broadband download speeds of less than 2Mbps), or you are unable to obtain an affordable broadband service at all, providing that:

- (a) We determine that your home or business is not currently able to access a broadband download speed of at least 2Mbps;
- (b) There are no alternative affordable broadband services available to you, which would provide a broadband download speed of at least 2Mbps;

we will ask you to confirm on your application that to the best of your knowledge, there are no alternative affordable broadband services available to you, which would provide you with a broadband download speed of at least 2Mbps;

we will check our records of existing and planned coverage of broadband services to confirm that there are no alternative affordable broadband services available to you, which would provide you with a broadband download speed of at least 2Mbps;

if we determine there may be an alternative affordable broadband service available to you, which may be able to provide you with a broadband download speed of at least 2Mbps, we will refer you to the relevant provider for you to obtain that service (and not issue you with a voucher under the scheme). However, if an alternative affordable broadband service is not actually available to you, we will consider issuing you with a voucher under the scheme (subject to the other eligibility tests described here), and add your post code to our list of those where we are proposing to make vouchers available, which we will make publicly available to service providers for consultation.

(Note: adding post codes to our list of those where we are proposing to make vouchers available, and making that list publicly available to service providers for consultation, is a condition of the European Union's State Aid Decision, which provides clearance for the Scheme, and is designed to prevent publicly-subsidised broadband schemes 'crowding out' private investment in making broadband services available).

- (c) There are no plans to provide superfast broadband to you within 12 months of your application;

we will check our roll-out plans for superfast broadband to see whether you are likely to benefit within 12 months of your application;



if you are likely to benefit from superfast broadband within 12 months of your application, you may not wish to enter into a minimum 12 month contract with a satellite broadband retail service provider under the scheme, and may prefer to wait until superfast broadband becomes available to you;

we will advise you of when superfast broadband is likely to be available, and if this is within 12 months of your application, then we will not issue you with a voucher under the scheme. However, if you are unlikely to benefit from superfast broadband within 12 months of your application (i.e. superfast broadband availability is more than 12 months away, or not yet planned), we will issue you with a voucher under the scheme.

Why do I have to wait to get better broadband?

There are strict rules around spending public funding to support the delivery of services. One of the rules prevents spending public money twice on a solution. Our view is that we should not waste public money providing two solutions to a premise within 12 months. We therefore advise you to wait for the superfast roll out where you will be able to benefit from faster broadband at lower costs.

I'm in the superfast roll out but I will not get a service for a long time and I'm less than 2Mbps?

There may be a time when you are in the roll out for superfast broadband and currently have poor broadband but the roll out will not reach your home or business for a year or more. In this situation we will look at the options and if we are able to determine that you currently cannot access speeds in excess of 2Mbps and that the roll out of superfast has not reached the stage of surveying the structures needed to bring superfast to your premise, you may be entitled to a subsidised satellite connection.

If I apply to the scheme and take a satellite broadband service, will I still be considered for superfast broadband deployment?

Yes. Taking a satellite broadband service under the scheme has no effect on our plans for further deployment of superfast broadband, and your premises will be included within those plans, whether you take a satellite broadband service under the scheme, or you choose not to do so.

How will I know the outcome of my application?

We will aim to make a decision on your application as quickly as possible (within one month of receiving your completed application), and we will advise you of the outcome of your application by email.

If we decide to issue you with a voucher under the scheme, we will send you a unique voucher code via email, together with the list of the satellite broadband retail service providers currently operating under the scheme, and their contacts details.



If we decide not to issue you with a voucher under the scheme, we will send you an email with the reasons for our decision.

Can I appeal against a decision not to issue me with a voucher?

If you are not satisfied with our decision not to issue you with a voucher under the scheme, and the reasons we have given for that decision, you may submit one appeal by email setting-out the grounds for your appeal, and why you believe we should have issued you with a voucher. We will review our decision in the light of your appeal, and will make a final decision on whether or not to issue you with a voucher under the scheme. We are not able to consider more than one appeal in relation to any one applicant.

How do I use the voucher?

Once you have received a unique voucher code, and the list of satellite broadband retail service providers currently operating under the scheme, you should review the products and prices available from each provider, to select the product that best meets your requirements and the amount of monthly subscriptions you are willing to pay.

You should then approach your chosen satellite broadband retail service provider to order the service you require, and provide them with your unique voucher code. The satellite broadband retail service provider will confirm the features of the product you have chosen, and the costs involved in a minimum 12 months service contract, after the voucher has been taken into account.

The voucher will cover most of the cost of installation and commissioning of your satellite broadband service. You will be responsible for paying any remaining cost of installation and commissioning (if any), and paying the monthly subscription for the service you have selected, and for paying any VAT on the amounts payable.

Can I use the voucher with retail service providers that are not part of the scheme?

No, the voucher can only be used with satellite broadband retail service providers operating under the scheme. Other satellite broadband retail service providers may join the scheme after launch, and you will be advised of the list of satellite broadband retail service providers currently operating under the scheme at the time that you are issued with your unique voucher code.

Other satellite broadband retail service providers not operating under the Scheme may also offer services in your area, and you may choose to use such an alternative satellite broadband retail service provider, but you will not be able to use a voucher issued under the scheme with that alternative provider, and you will have to meet the full cost of installation and commissioning and using the service yourself.



What else is available?

Unfortunately the subsidy scheme will only provide access to a satellite broadband service however your premise may be able to access a service from another type of supplier. This could be a mobile 4G broadband solution or a local fixed wireless network. If there is a local network that covers your premise and would cost less than £400 for a 12 month service then this could be a better solution for your requirements. Many local suppliers will advertise their services and a few of these are listed on our webpages. As part of your application process we will ask you to confirm that no other, affordable, basic broadband service is available to your premise.

The limitations of satellite broadband

Satellite broadband is different to standard ADSL or fibre broadband. The connection to the internet is made using a satellite in space. This means you do not need to have a phone line. A maximum rate of 22Mb download speed and 6Mb upload speed are available. The speed of the service ultimately depends on other factors such as how many users are on the network. Superfast satellite is available as an option and will provide speeds greater than 24Mb.

There are a number of variables that influence the download and upload speeds a premise may receive. As the number of people that are using the network, at any given time increases, the speeds may reduce. The more people accessing it; the slower it goes. Due to this you may find that during peak times your download speeds are slightly less than usual. This typically would be down to congestion on the network. This is something all internet providers have to account for.

Are there any limits on how much data can be downloaded?

Yes. Depending on the package purchased, which will give a data threshold, all of the satellite broadband services are subject to a *Fair Access Policy (FAP)*. The idea of the *Fair Access Policy* is to maintain quality of service for all customers on the network. Each service level is given a data allowance for a 1 calendar month period. If you exceed this threshold then you will see a significant reduction in speed across your connection.

Are there requirements for the installation of satellite broadband?

Yes. The satellite dish needs a clear line of sight to the southern facing sky. The exact angle is 9 degrees east of south and pointing up approximately 30 degrees from the horizontal. The modem requires a power supply. The new dish being used for the KA-Service is expected to be around 76cm. This is a reduction in size of the larger 1m dish used for the Ku-band service.

Can I use wireless at home with satellite broadband?

Yes. Satellite broadband can integrate a wireless router of your choosing with the satellite broadband system. The router does need to be an Ethernet Router for connection to the satellite modem. An ADSL router will not provide the right connection to the satellite.



What is latency?

Latency is the term used for the time lapse in your request, and for that request to reach the server. For satellite connections latency is around 600 milliseconds. This means certain applications such as on line gaming and VPN connections may not work as well over satellite. It depends on what game you are playing. Games such as chess or other turn-based games where a reaction time is not essential will work. For action games where reaction time is critical then satellite broadband service is not suitable.

Satellite broadband – typical usage

Application	Operation via satellite	Recommendations / limitations
HTTP (web) browsing	Works very well	
TV on demand such as BBC iPlayer	Works very well	Consider data allowance limitations - an SD film uses 0.75 GB and a HD film 4.5GB of your data allowance
Facebook, LinkedIn and other social media sites	Works very well	
FTP and TFTP applications	Works very well	
Video on demand such as Love Film & Netflix	Works very well	Consider data allowance limitations - an SD film uses 0.75 GB and a HD film 4.5GB of your data allowance
Internet Radio	Works very well	Consider data allowance limitations - 8 hours of internet radio will use 1GB of your data allowance
Interactive online gaming.	Works with limitations	It is not recommended to play so called “first-person shooter” games. Any kind of combat or game that involves the need for an immediate reaction will not work so well just due to the extra time involved in the trip to the satellite and back that your data has to make.
You Tube video viewing and sharing	Works very well	Consider data allowance limitations - a 5 min video clip on YouTube will use 0.1GB of your data allowance

Application	Operation via satellite	Recommendations / limitations
Web mail access to e-mail IMAPI servers	Works very well	
POP3/SMTP email	Works well	You should check with your existing ISP that you can access your current email address from a different network other than your current ISP, and the settings required to set up their email client.
Skype	Work with limitations	Skype utilises Peer 2 Peer protocols and will function but performance of the call (Voice and or Video) cannot be guaranteed.
Wireless Access Points	Works very well	Customer will need to purchase their own wireless router and these devices are available from most high street computer stores.

Satellite Broadband – specialist usage

Application	Operation via satellite	Recommendations / limitations
Citrix (Thick client)	Operates but some issues are known	Citrix acknowledge the adverse effect of high latency links on their application. Three options must be utilised to improve Citrix operation (SpeedScreen, Bitmap Caching & Mouse & keyboard queuing)
Citrix (Thin client)	Works well	A Citrix engineer should be consulted prior to its use over satellite to optimise the timeout parameters on the server.
SSL VPN	Works very well	Unfortunately SSL VPN encryption only works for web-based applications, therefore cannot allow secure file transfers from a data centre or FTP sever
IPSec VPN	Works but limited to typically 150kbps or lower per TCP session	IPSec is a more secure encryption method than SSL enabling full packet encryption. This however renders all satellite network accelerators and optimisers ineffective.

Application	Operation via satellite	Recommendations / limitations
IMAPI e-mail (Microsoft Exchange server etc.)	Works with noticeable delay	Newer versions are continually improving the chatty protocol causing the lowered performance. A specialist should be consulted re possible alternative solutions to improve performance.
Voice over IP (VoIP)	Work with limitations	You can use VoIP but there is no guarantee that voice quality will be maintained throughout the call.
Database applications	Work with limitations	Large database transfers are accelerated but not queries or directory synchronisation. A database engineer should be consulted prior to its use over satellite to optimise the timeout parameters on the server.
Terminal emulators	Work with limitations	Must have local-echo enabled at the remote site in order to perform properly
Shared desktop	Work with limitations	TCP acceleration helps with bitmap files of screen images,
File Transfer Protocol (FTP) & Trivial File Transfer Protocol (TFTP)	Works very well	
NetBIOS	Does Not function	This is a local area network (LAN) technology that cannot be accelerated as it is not a routable function in a wide area network (WAN) environment.
Shared drives or drive-mapping	Works with very noticeable delay	This not recommended over satellite except through a virtual private network (VPN) tunnel. A specialist should be consulted re possible alternative solutions to improve performance. E.g. web based portals or WAN optimisation.

Who operates the scheme?

The scheme fulfils a government commitment first made in December 2010, when the government announced public funding to extend Superfast Broadband beyond the reach of commercial deployment to 90% of UK premises. The 2Mbps Universal Service Commitment (USC) was to offer a service providing broadband speeds of at least 2Mbps for anyone yet to benefit from superfast broadband by the end of 2015. The government subsequently made further public funding available to raise the target for superfast broadband coverage to 95% of UK premises by the end of 2017.

The scheme to deliver the 2Mbps Universal Service Commitment (USC) is operated by a partnership between DCMS, Local Bodies, BT, a number of satellite broadband retail service providers, and a number of satellite broadband platform providers. The national scheme is operated under a framework contract awarded to BT by DCMS.

The scheme in Oxfordshire is operated under a contract between BT and Oxfordshire County Council (non-framework).

DCMS having overall responsibility for implementing the government's policy on the 2Mbps Universal Service Commitment (USC), works with BT to operate the national scheme, and works with Local Bodies to ensure that the scheme is implemented consistently across the UK. DCMS and Local Bodies provide matched public funding for the operation of the scheme.

BT acts as a supplier to DCMS/Local Bodies as a wholesales provider of satellite broadband services, working with the satellite broadband platform providers, and a number of satellite broadband retail services providers.

Applications under the scheme and decisions to award vouchers in Oxfordshire are made by Oxfordshire County Council, using a nationally agreed process and eligibility criteria. DCMS provides a central process for creating unique voucher codes (which are issued by Oxfordshire County Council), and for assuring payments between the partners operating the scheme.

Satellite broadband retail service providers operating under the scheme claim voucher payments from BT, with BT billing Oxfordshire County Council for vouchers issued.

If you have any queries on the Scheme, you can send us an email to broadband@oxfordshire.gov.uk.