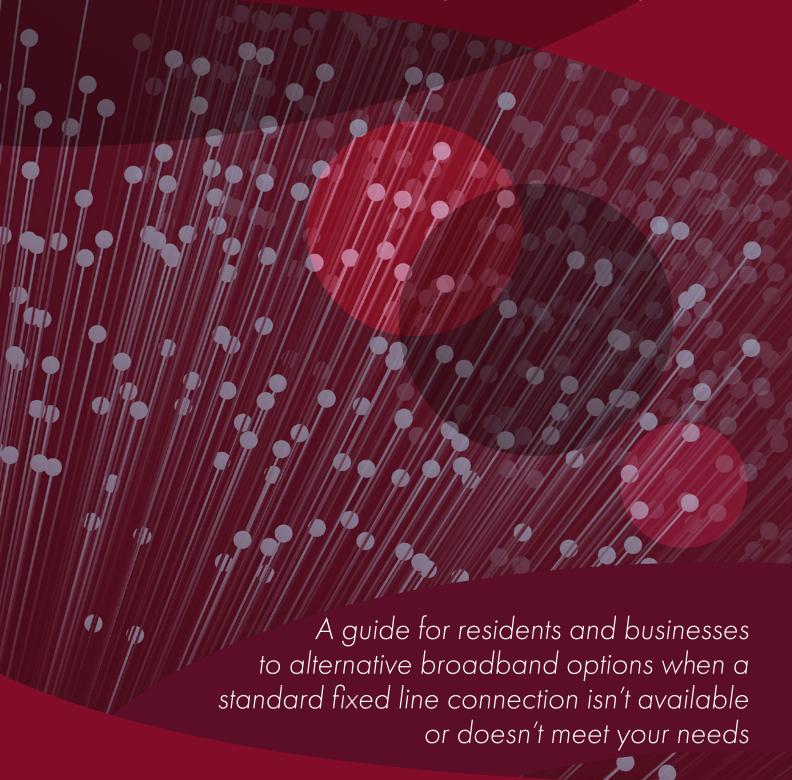
# Broadband alternatives: Your options when standard connections aren't good enough

One in a series of Digital Connectivity Guides





#### **Broadband in Worcestershire**

In the last few years, our society has become increasingly dependent on broadband to meet a wide variety of our needs. Whether its streaming on-demand TV, online gaming, working from home or businesses providing services online, a good broadband connection has become vital. The fastest, most reliable full fibre broadband is quickly being made available across our county but it's not available everywhere yet and some areas will have to wait years (and not months) for it to become a reality.

If you've already used our guide, Broadband Basics: How to check what's available, to check what's available to you now (or what will be available soon through the build of the commercial operators) or you already know it doesn't meet your needs, then read on to learn more about alternative solutions that could get you connected sooner rather than later.

#### How many alternatives are there?

When the broadband available doesn't meet your needs there are a wide range of alternative solutions that could improve your connection temporarily or provide a long-term fix. These range from using Government funding to subsidise the building of new infrastructure in your area to connecting to satellites orbiting in space. Below, we describe the main alternative solutions to your connectivity requirements including details of whether the connection is fixed or wireless and who it might be most suitable for.

#### What programmes exist to improve broadband services

#### Project Gigabit – a county wide contract

Who is it for? This option will cover residents and businesses but you won't have an option to choose to be included.

**How will it connect you?** This option will provide 'full fibre to the premises' connections.

Project Gigabit is the government's flagship £5 billion programme to enable hard-to-reach communities to access gigabit-capable broadband. It targets homes and businesses that are not included in broadband suppliers' commercial plans, reaching parts of the UK that might otherwise miss out on getting the digital connectivity they need.

As part of this programme the Government body, Building Digital UK (BDUK), is awarding contracts to suppliers to connect those hard-to-reach locations that will need government support towards the cost of gigabit-capable broadband. Worcestershire could benefit from up to six of these contracts but we expect one contract that will cover most of the county to be awarded by the end of 2023, but it will not reach everyone.

This will not be a quick process but plans should become clearer and new infrastructure start to be built in 2024.

If you are covered by this scheme, it will be a case of waiting for the new infrastructure to become available and then signing up for the service. As there will be a delay you may want to consider the alternatives in the rest of this guide to get you connected sooner even if that's only temporarily.

We will share information from BDUK (Building Digital UK) through our usual channels as soon as we have the details to help residents and businesses make the best decisions for them:

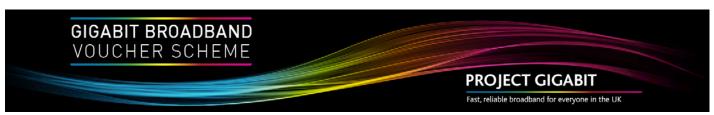
www.worcestershire.gov.uk/digitalconnectivity





The latest timeline for the procurement of these contracts can be found in BDUK's Project Gigabit quarterly updates website page:

www.gov.uk/government/collections/project-gigabit-quarterly-updates.



#### Project Gigabit – a voucher scheme

Who is it for? This option will cover residents and businesses who are prepared to work together in their local community.

**How will it connect you?** This option will provide 'full fibre to the premises' connections.

BDUK has allocated up to £210 million to give people in eligible rural areas financial help to get gigabit-capable speeds. You access the scheme by asking suppliers that have registered with BDUK to give you a quote for the cost of connecting your community.

Ideally, the vouchers worth up to £4,500 for each home and business will cover the full cost of installing gigabit broadband right to your premises. The scheme is only available to premises not included in any of the commercial or Project Gigabit builds.

We have very successfully assisted many communities access this funding so please get in touch if you have any questions or would like some help to get started: broadband@worcestershire.gov.uk



This scheme will become available to residents and businesses of Worcestershire once the main contract described in the scheme above has been awarded. You can then start the process by checking if you're eligible for a voucher at your address on the Gigabit Broadband Voucher Scheme website:

www.gigabitvoucher.culture.gov.uk.

#### **Universal Service Obligation (USO)**

Who is it for? This option covers residents and businesses who cannot receive a minimum of a 10Mbps download speed and a 1Mbps upload speed (described as a 'decent connection'), but you have to ask for it.

**How will it connect you?** This option will provide funding towards a 'decent connection' only, through upgrading local infrastructure.

This scheme is run by BT in Worcestershire and only guarantees a 'decent connection' of 10Mbps download and 1 Mbps upload if the costs of doing so are £3,400 per premises or less. You can check your eligibility by following this guide provided by the telecoms regulator, Ofcom:

www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/broadband-uso-need-to-know

#### Alternate Solutions Leased line

Who is it for? This is typically an option for businesses connection to the internet delivering virtually any who are looking for the fastest most reliable speeds with dedicated support and guaranteed levels of service.

How will it connect you? This option will provide a dedicated 'full fibre to the premises' connection.

Ethernet/Leased (private) lines for businesses are private fibre connections often requested for businesses, without access to Fibre to the Premises (FTTP) networks. The cable is run from the exchange and terminates at your premises and provides you with a dedicated, uncontended, and consistent

speed you require. Speeds go up to 10Gbps (or 10,000Mbps) but usually 1Gbps is sufficient for business.

Businesses can choose Leased lines due to their service requirements but note that this solution can be a costly option as the initial installation from nearest connection point to your premises is a major consideration alongside the ongoing monthly costs. With the build of commercial 1 Gbps networks, business may want to review their current leased line packages based on cost and service needs.

#### Fibre on Demand

Who is it for? This option is for residents and businesses who don't want to wait for a wider commercial deployment.

How will it connect you? This option will provide 'full fibre to the premises' connections.

Fibre to the Premises on Demand (FTTPoD) enables you to order Generic Ethernet Access over FTTP with speeds up to 1 Gbps for customers who are within a Fibre to the Cabinet (FTTC) exchange area and are served by a FTTC enabled cabinet. Here are some examples of suppliers offering FTTPoD services:

- www.businesstelco.co.uk
- www.fluidone.com

- www.openreach.co.uk
- www.cerberusnetworks.co.uk

This option will generally be significantly more costly than waiting for connections to become widely available in your area as full fibre is rolled out.



#### Mobile broadband (4G / 5G)

Who is it for? This option can cover residents and businesses.

**How will it connect you?** This option will provide broadband connections wirelessly to your premises using available mobile networks.

This can be an alternative solution for those that can't get an adequate fixed line broadband service. With 4G coverage expanding and 5G now being deployed now within our county this is becoming an increasingly viable option.

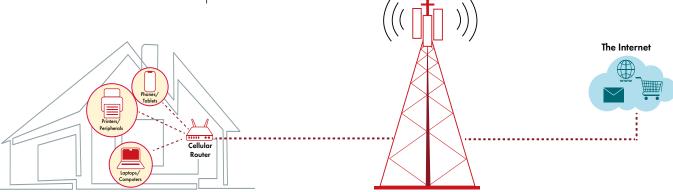
Either a mobile router or a "Dongle" device, with a 4G/5G sim in it, can be used. If you do not have a strong mobile signal within your property, often an affordable external aerial can be provided that

ensures the signal is strong enough to support mobile broadband within the home.

Depending on your location, mobile providers should confirm your potential connection speed, as this technology works using mobile phone signals.

You can also check how strong your signal should be (inside and outside) by visiting the Ofcom mobile coverage and fixed broadband checker. It is worth noting that mobile packages often come with a limited usage allowance, although there have been several unlimited packages for less than £20 per month. Search for 'mobile broadband' or similar via an internet search engine for a wide range of options.

Cellular Network



#### **Satellite**

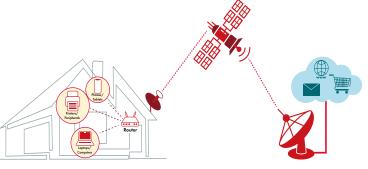
Who is it for? This option can cover residents and businesses.

**How will it connect you?** This option will provide broadband connections wirelessly to your premises using satellites.

The availability of low earth orbit satellite broadband services has recently increased, offering a possible alternative for customers in areas where they cannot access an acceptable broadband service for them.

Low Earth Orbit (LEO) satellite constellations are now available offering residential and business broadband to UK customers. LEO satellites can deliver lower latency services, than older 'satellite broadband', due to their lower orbit (below 2,000 km), enabling a more seamless use of applications like two-way video calling and gaming.

Search for 'satellite broadband' or similar via an internet search engine to view the available options.



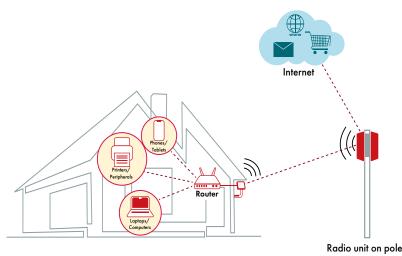
#### **Fixed Wireless Access (FWA)**

Who is it for? This option will cover residents and businesses.

**How will it connect you?** This option will provide broadband connections wirelessly to your premises using 'radio' technology.

This solution provides wireless connectivity through radio links between two fixed points (normally a transmitter and your premises). This reduces the requirement for laying expensive fibre and cables to hard-to-reach sub-urban and rural areas where the costs are commercially prohibitive.

FWA has been around for several years at superfast speeds (greater than 30Mbps) but the speeds offered through this technology have notably increased towards gigabit capable in recent trials.



The availability of this technology is currently limited but it's worth completing an internet search for 'FWA broadband near me' or similar to check if it's something available to you.

#### **Bonded Solutions**

Bonded Internet provides high-performance internet connectivity for your business and residential premises.

Bonded Internet access is the technology that some businesses use to deploy improved quality, reliable internet access, which works by combining multiple wireless 4G and / or other internet lines from different carriers into a single connection. This solution can also provide resilience if one of the connections goes down.

More information is available should you wish to explore this solution.

#### How to Guides

This guide is one of number of guides Worcestershire County Council has created to help support residents, businesses, and visitors to get the most out of their broadband and mobile connectivity.

Other guides can be found on the Worcestershire County Council website:

www.worcestershire.gov.uk/digitalconnectivity

The information provided by Worcestershire County Council through these Mobile and Broadband Connectivity Guides is for general informational and educational purposes only and is not a substitute for professional advice. Accordingly, if you are not familiar with the technology and before taking any actions based upon such information, we encourage you to consult with the appropriate professionals.

All information is provided in good faith; however, we make no representation or warranty of any kind, express or implied, regarding the accuracy, adequacy, validity, reliability, availability, or completeness of any information within these Connectivity Guides.

