

A guide to **CONNECTIVITY**





Introduction

New business trends require many businesses like yours to rethink their telecoms infrastructure. We understand that changing your internet connection can be a daunting experience and the range of connectivity options and technologies now available to businesses can be confusing.

You can count on SCG to support and guide you at every single step of your journey.

We have produced this guide to connectivity to help you get to grips with the various options available to your business. It explains the technologies that are currently available and explains their key features to help you choose the most suitable option for your business.



**Dedicated
Account
Manager**



Expertise



**Tailored
solution
s**



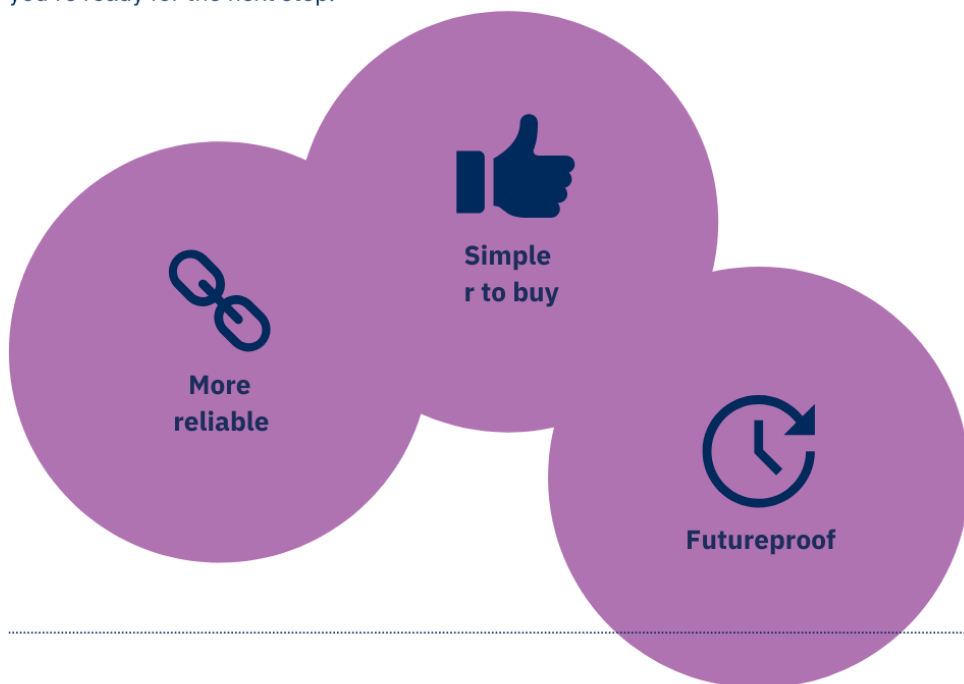


The Great British Switch Off and the end of traditional voice products

To respond to the market needs for faster and more reliable internet connections, Openreach has started to replace our aging telephone network with a brand new, ultrafast full-fibre network.

Openreach has already begun to stop the sale of traditional voice line products in parts of the country. In these areas, people and businesses are no longer able to buy or upgrade any telecoms product that requires a landline, making these products obsolete.

Openreach will gradually extend this to the whole of the UK before switching off traditional landlines altogether. It is important to ensure you're ready for the next step.



Single order products

To replace their legacy products, Openreach has introduced single order products.

This new category of products does not require a landline and can be ordered as a standalone service.

Single orders products include:

<p>SOGEA Up to 80 Mbps</p>	<p>SOG.fast Up to 330 Mbps</p>	<p>FTTP Up to 1 Gbps</p>
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FTTP and Leased Lines remain businesses' safest and most futureproof options as no change will be needed in the coming years, unlike other products that will be withdrawn.



Glossary



Explaining Speed

Put simply, broadband speed outlines how fast data can come (download) and go (upload) through your connection.

Broadband is an asymmetrical service, which means it always has a higher download speed than upload speed. That's because most users are data consumers, streaming video, browsing the internet and/or downloading files.

Recommended product & The Great British Switch Off approved badges



Recommended product



Great British Switch Off approved

Measuring Speed

Speed is measured in megabits per second (Mbps), and the higher the number of megabits you can download per second, the faster the connection. For example, a basic copper broadband at 16Mbps can download an HD movie in 12 minutes. With Fibre Broadband at 50Mbps you could download the same film in just under 2 minutes.

Dedicated one-to-one connectivity like Leased Lines can support speeds of up to 10Gbps (equivalent to 10,000 Mbps) depending on the needs of your business.

SLA

An SLA (Service Level Agreement) is essentially an agreement made by the service provider that guarantees a certain level of service, for example, a guaranteed amount of uptime (i.e. the time a connection is working).

Connections to the internet come with or without SLAs. The ones with an SLA give you more peace of mind by offering guaranteed speed and fixed uptime, and are a must-have for businesses for whom a connection to the internet is critical.



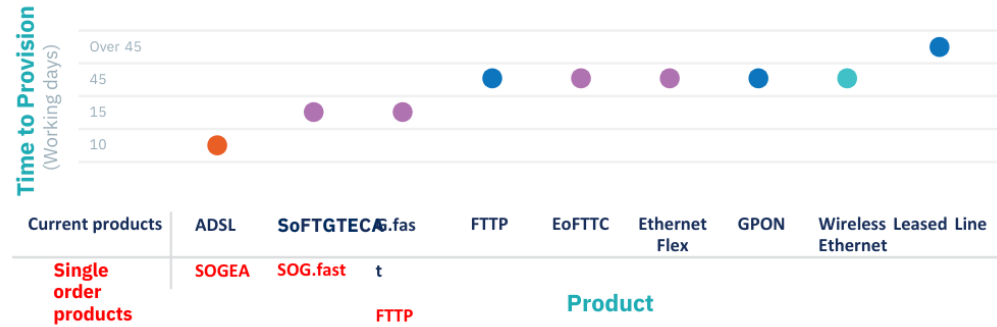


Comparisons Time to provision

Speed, price, time to deliver and reliability (service guarantee) are key decision-making criteria when choosing a business connection. Before we look at each technology in turn, it is helpful to understand where each connectivity product sits in relation to each of these criteria.

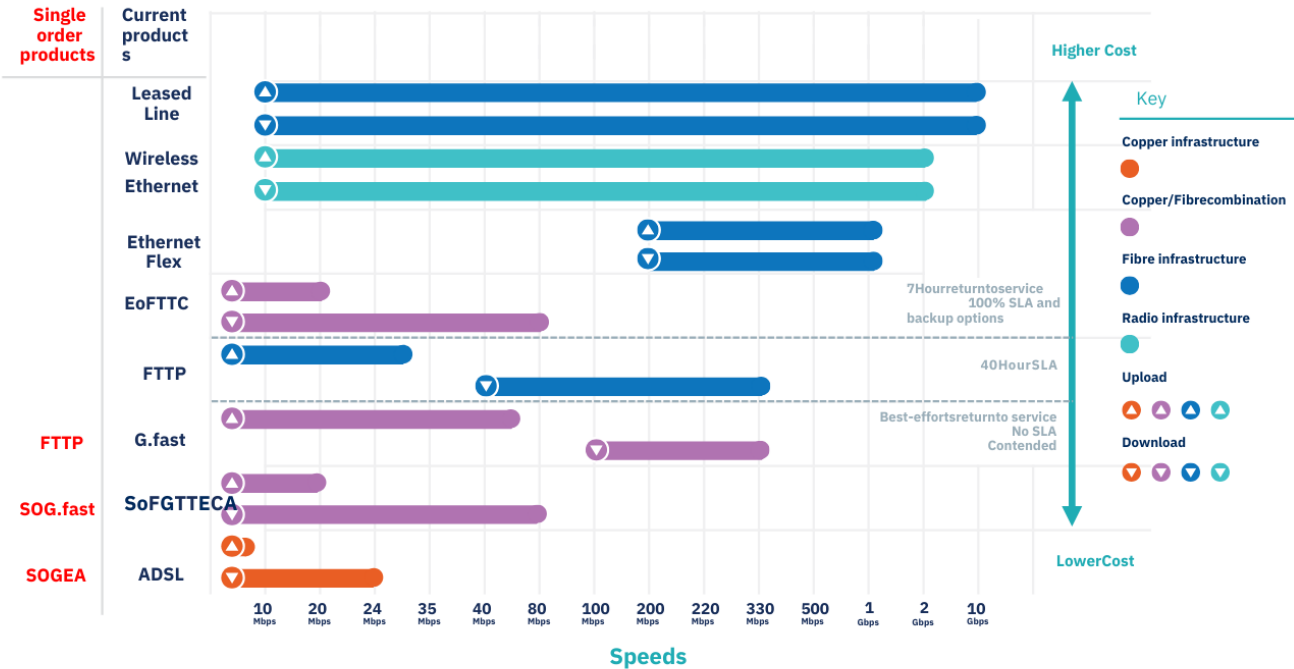


This matrix demonstrates how the timeframe for installation of each technology compares.



The connectivity scale

This simple matrix demonstrates where each technology sits in terms of upload and download speeds, price and service levels.





ADSL broadband

Download

Upload

Up to 1Mbps



Key features



Entry level product



Widely available



No service guarantee



Contended service

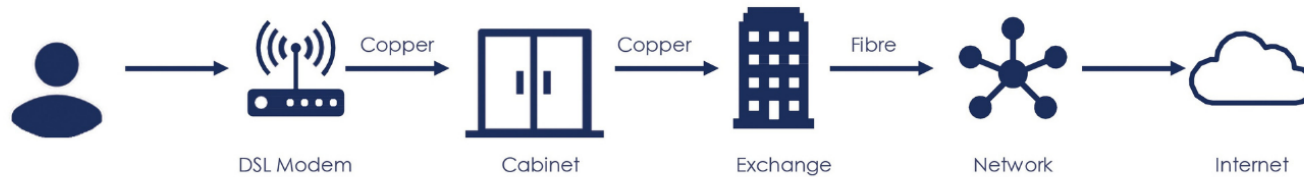


Impacted by The Great British Switch Off



How does it work?

Our basic broadband service uses a copper telephone line to the nearest street cabinet and then copper connectivity to the nearest exchange where traffic is then delivered over the broadband network.



The maximum speed of this service is 24Mbps download and 1Mbps upload. However, the speed available at your premises will be dependent upon copper line conditions and your distance from the exchange.

Low cost and quick to deploy, basic broadband is a contended service, which means that bandwidth may be shared with other users and may impact your speeds at busy times. Some businesses may not find this an issue, but if your internet connection's reliability and resilience is business critical, you may wish to look at one of our uncontended services like EoFTTC, Ethernet Flex or a Leased Line, which provide service guarantees.



Unlike basic broadband, fibre-based broadband services utilise the newer fibre-based infrastructure, now available to over 95% of UK premises, and can deliver potentially faster speeds and arguably greater reliability.



Key features



Entry level product



Widely available



No service guarantee



Contended service



Single order product



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SOGEA



Download

Upload

Up to 20Mbps

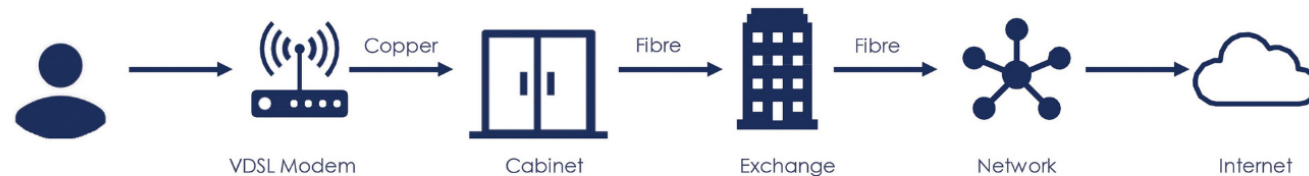
How does it work?

SOGEA uses a copper telephone line to the nearest street cabinet and then fibre connectivity to the nearest exchange where traffic is then delivered over the broadband network.

Part of Openreach's next generation of products, SOGEA doesn't require a landline and therefore is available as one single order. Moreover, it will remain available after the Great British Switch Off.

It provides a higher speed service with a maximum speed of 80Mbps download and 20Mbps upload. The speed available at your premises is dependent upon copper line conditions and your distance from the exchange. Relatively low cost and quick to deploy, SOGEA is a contended service, which means that bandwidth may be shared with other users and may impact your speeds at busy times. Some businesses may not find this an issue, but if your internet connection's reliability and resilience is business critical, you may wish to look at one of our uncontended services like EoFTTC, Ethernet Flex or Leased Lines, which provide service guarantees.

SOGEA is only available in areas where FTTP is not available.





FTTP

Download

Upload

Up to 220Mbps



Key features



Recommended product



Check for availability



Full fibre



Contended service



40 hour SLA



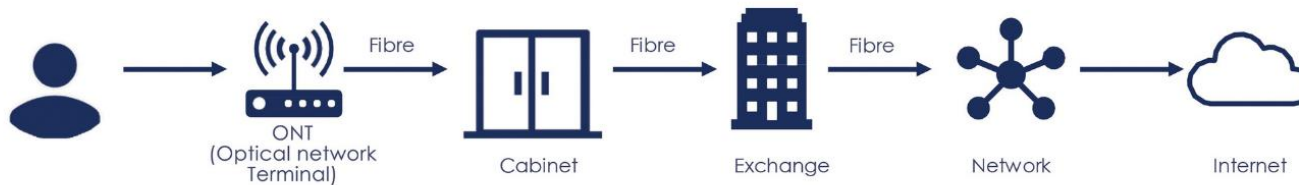
Single order product



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How does it work?

Fibre to the Premises (FTTP) uses a fibre connection from your premises to the nearest street cabinet and then fibre connectivity to the nearest exchange where traffic is then delivered over the broadband network.



Part of Openreach's next generation of products, FTTP doesn't require a landline and therefore is available as one single order. Moreover, it will remain available after the Great British Switch Off. A full fibre product, this service can deliver a step change in speed with a maximum download of 1Gbps and upload of 220Mbps.

FTTP availability is limited to a subset of fibre-capable exchanges - just ask your SCG representative if it is available at your postcode. FTTP is a contended service, which means that bandwidth may be shared with other users, but with such a step change in speed it is unlikely that most small businesses will find this an issue. If your internet connection is business critical, you may wish to look at an uncontended service like EoFTTC, Ethernet Flex or a Leased Line, which provide service guarantees.





Ethernet Flex

Download

Upload

Up to 1Gbps



Key features



Recommended product



Burst speeds up to 1Gbps



Independent of Openreach



Full fibre



Symmetrical bandwidth



7 hour SLA



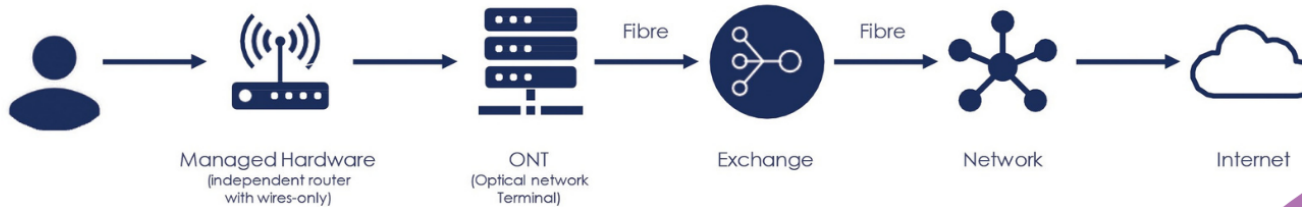
Check for availability



The Great British Switch Off approved

How does it work?

Ethernet Flex is a highly cost-effective form of full-fibre internet connectivity for businesses looking to balance exceptionally high speeds with affordability while retaining critical reliability.



Ethernet Flex delivers ultrafast internet access with guaranteed minimum speeds of 200Mbps, symmetrical speed bursts of up to 1Gbps and it can be delivered within 45 working days. Ethernet Flex also comes with a 99.5% SLA, a 7-hour return to service guarantee and unlimited usage for complete peace of mind.

Our full-fibre connections are split to no more than 8 premises, enabling delivery of a consistently reliable service even when all of the connections are used simultaneously at their maximum capacity.





Wireless Ethernet

Download

Upload

Up to 2Gbps



Key features



Independent of Openreach



Symmetrical bandwidth



Uncontended



7 hour SLA



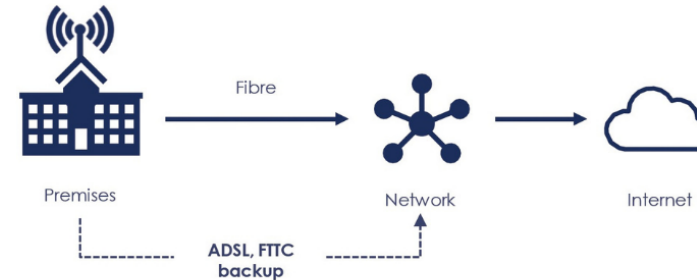
Not widely available



The Great British Switch Off approved

How does it work?

Wireless Ethernet is delivered using radio and microwave technology, and provides reliable connectivity with speeds of between 10Mbps and 2Gbps. It is somewhat limited in its availability, where it is available, it is suitable for sites with an immediate need for a fast connection.



Like other Ethernet services, Wireless Ethernet offers the peace of mind afforded by a robust Service Level Agreement and 7-hour return to service guarantee. While not as robust as a piece of fibre in the ground, it can be suitable as an interim solution while a Leased Line is being provisioned, or as a backup solution for use in fail-over situations.





Leased Line

Download
Upload
Up to 10Gbps



Key features



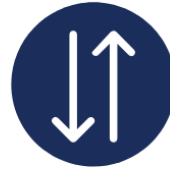
Recommended product



Widely available



Full fibre



Symmetric bandwidth



Uncontended



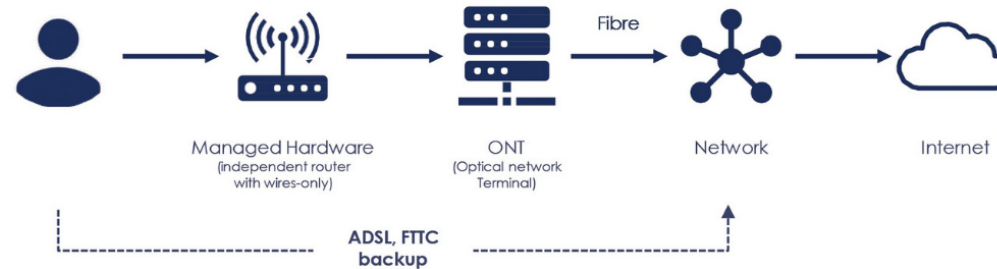
7 hour SLA



The Great British Switch Off approved

How does it work?

A totally dedicated 1-to-1 full fibre connection from your premises to the core network. A Leased Line is a high performance, secure, always-on connection with the highest speeds available on the market, ranging from 10Mbps up to 10Gbps.



The solution is also scalable, meaning you can flex your contract up and down to manage business growth. With a 99.5% uptime guarantee, 7-hour fix and choice of failover options, Ethernet offers the highest performing and most resilient internet access on the market. Widely available, Ethernet deployment is subject to survey and can take more than 45 working days to install. Every aspect of your installation will be expertly managed by Order Hub, our specialist provisioning team.



A simple comparison

Recommended product Entry Level product



	E ADSL	E SOGEA	R FTTP	R Ethernet Flex	E Wireless Ethernet	R Leased Lines
Great British Switch Off approved	x	ü	ü	ü	ü	ü
Openreach	ü	ü	ü	x	x	Various suppliers
Lead time (working days)	7-10	10-15	10-20	From 45	From 45	45+
Fibre	x	Partial	ü	ü	x	ü
Speed	Up to 24 Mbps	Up to 80 Mbps	Up to 1 Gbps	Min 200 Mbps Burst to 1 Gbps	Up to 2 Gbps	Up to 10 Gbps
Symmetric bandwidth	x	x	x	ü	ü	ü
Uncontended	x	x	x	Contention protected	ü	ü
Service Guarantee	x	x	x	ü	ü	ü
Widely available	ü	ü	x	x	x	ü

How do I decide which solution is best?



The answer is dependent on how essential connectivity is to you, compared with how quickly you need the connection and your budget. To help you determine your core requirements, here are a few questions to consider:

- ✓ What purpose does your connectivity serve?
- ✓ Will it be the backbone for information distribution across your business?
- ✓ Will you use it to access and share hosted applications?
- ✓ Is your business dependent on continuous access to online services?
- ✓ What would the real impact on your business be if you were to lose connectivity for 24+ hours?
- ✓ How critical would it be to resume service within a few hours? How critical is it for a backup service?
- ✓ How detrimental would any downtime be on your order taking, production, sales etc?

