

About the Ofcom mobile and fixed broadband coverage APIs

About the mobile coverage API

This API provides signal level predictions provided by the four UK mobile network operators. Ofcom has tested actual coverage in various locations around the UK, and used the results to set the thresholds for voice coverage and mobile data access. We will continue to conduct testing, work with the mobile operators and analyse consumer feedback with a view to improving the accuracy of the map. The map may differ from those provided by the network operators; see the FAQ below for reasons why.

About the fixed broadband API

This checker uses broadband availability and predicted speeds data provided by the UK's major Internet Service Providers.

Standard Broadband speed predictions refer to the highest predicted speed of any major ISPs for packages up to 30 Mbit/s. Superfast Broadband speed predictions refer to the highest predicted speed of any major ISPs for packages between 30 and 300 Mbit/s. Ultrafast Broadband speed predictions refer to the highest predicted speed of any major ISPs for packages over 300 Mbit/s. The checker should not be regarded as providing a definitive view. The data is currently updated every four months and due to rapid rollout of fixed services in some areas, may be out of date.

Mobile coverage API Frequently Asked Questions

Why does my mobile provider not show up on the list?

The API provides the coverage of the four main network operators in the UK: EE, Vodafone, O2 and Three. All other mobile operators in the UK provide their services over these networks. Examples include:

Virgin Mobile, Asda Mobile and BT Mobile use the EE network.

Tesco Mobile, Sky Mobile and Lycamobile use the O2 network.

Lebara Mobile and TalkTalk Mobile use the Vodafone network.

Some of these operators may not offer services over 4G, so check with them if you want to use 4G. Your operator may have a coverage checker on its own website.

What do the colour codes provided in the mobile coverage API mean?

Green means that for a given metric and operator, in the specific location the data refers to, there is likely to be good coverage.

Amber means that for a given metric and operator, in the specific location the data refers to, you may experience some problems with coverage or service

Red means that for a given metric and operator, in the specific location the data refers to, a reliable signal is unlikely.

Blank or no colour means that for that metric, and operator, in the specific location the data refers to, you should not expect to receive a signal.

What's the difference between 2G, 3G and 4G?

2G networks support voice calls, text messaging and very low speed data connections. All handsets are able to connect to 2G networks.

3G networks support voice calls, text messages and mobile broadband. Most phones support 3G connections, but some older phones and very basic phones do not. When 3G coverage is not available handsets will try and connect to the 2G or 4G network, where one is available to them.

4G networks support voice call, text messages and mobile broadband. 4G networks are capable of higher mobile broadband speeds than 3G networks. Most phones now support 4G connections, but some older phones and very basic phones do not. When 4G coverage is not available handsets will try and connect to the 2G or 3G networks, where one is available to them.

Your data is different to that the operators' display. Why?

Ofcom's API uses data from the mobile operators about how strong they think signal levels are at every location in the UK. Ofcom carried out field tests to measure the signal strength required for mobile calls to work reliably on commonly used handsets. Each mobile operator has a slightly different approach to displaying coverage on its own map, including assumptions on the handsets used, levels of call reliability and the expected signal loss when indoors or in car. Because Ofcom's API brings all of their data together in a single place and holds it to a single, independent standard, our map may display different levels of coverage than those seen on the operators' websites. Links to the operators' maps can be found here:

[O2](#)

[EE](#)

[Three](#)

[Vodafone](#)

We update the data provided by our API regularly (every month) and the mobile network operators update theirs, but there may be times when the maps are based on slightly different data and therefore show different coverage.

The map says that I should have good coverage but I'm not getting a reliable service. Why?

The data provided by the mobile coverage API is based on coverage predictions from the mobile operators. These predictions are generated using computer programmes that simulate the way mobile signals travel from mobile masts and are blocked by obstructions such as hills, trees and buildings. Coverage can also be affected by the device that you are using.

Our own measurements of mobile signals in different parts of the UK have shown that the computer models are usually accurate, but can sometimes be wrong.

Predicting indoor and in car coverage is subject to large variations as signal loss can vary significantly depending on the materials used. The Ofcom data reflects a typical signal loss for a house or car, but in some cases the signal loss may be greater. For example, if you are in a basement or in a house with thick stone walls.

If you are experiencing problems with indoor coverage you may wish to consider some of the solutions that the mobile operators can offer. For example, all the main network operators now have solutions that allow calls to be made and received over Wi-Fi.

Even when a signal is available, you may experience problems making calls or accessing mobile data services. This is usually because of congestion, where lots of other people are using the network at the same time and you are sharing the capacity of the mobile mast with them.

Why is my mobile broadband slow or unreliable?

Mobile broadband is delivered using 3G and 4G networks. If you are in an area where your provider only has coverage from their 2G network you should be able to get a very low speed data connection, but web browsing and other services are likely to be slow and unresponsive. If you are connected to a 2G network your handset will usually display '2G', 'GPRS' or 'EDGE' at the top of the screen.

Even when you have a strong 3G or 4G signal you may experience a poor broadband connection. This is usually because of congestion, where lots of other people are using the network at the same time and you are sharing the capacity of the mobile mast with them.

If you are connected to a 3G network your handset may display '3G', 'HSDPA', 'H+' or similar. 4G connections are usually displayed as '4G' or 'LTE' on the handset. Most handsets support 3G, but you may need to upgrade your handset, and possibly your subscription, to access your operator's 4G network.

The speed and reliability of 3G and 4G data can also be affected by the device that you use.

Can I cancel my contract if I can't get good coverage?

Check the provider's coverage before you buy a new contract (you can use our map [<https://checker.ofcom.org.uk/>]) and we would recommend you also check the provider's coverage checker) and then try your coverage as soon as you get connected. Try using your phone in the places you know you'll need it (such as home, work and other important places). If you bought your mobile contract at a distance (for example online or over the phone) and either change your mind about your contract, or find that coverage is a problem for you, you can cancel your contract under the statutory cooling off period that applies to the first two weeks. If you bought your mobile contract in a mobile provider's shop, check with your provider as many offer a 'check your coverage' cooling off period for contracts bought in store for the first two weeks after you sign up.

How can I complain about my coverage?

You should contact your mobile operator in the first instance if you are having coverage problems as they may have solutions for your problem. You'll be able to find contact details and their complaints procedure on their website or on your paper bill.

Information on how to complain to Ofcom about your provider

[Information on how to complain to Ofcom about your provider.](#)

Though Ofcom is unable to get involved in individual disputes, we do log and monitor the complaints we receive to help inform our decisions.

Fixed broadband coverage API Frequently Asked Questions

What is standard broadband?

We've defined standard broadband as any broadband connection that operates below 30 Mbit/s. If you subscribe to a service that is advertised with a headline speed of below 30 Mbit/s then you have a standard broadband connection.

What is superfast broadband?

We've defined superfast broadband as any broadband connection that operates between 30 and 300 Mbit/s. Superfast networks use optical fibre in the streets to deliver higher speeds.

What is ultrafast broadband?

Ultrafast networks are those that operate above 300Mbit/s.

There is no information for my postcode or address, why is that?

The predicted speeds provided in the API data are provided by the leading UK ISPs. We did not receive data for every premise in the UK, and we will continue to work with industry to fill in the gaps. If no predictions are shown for your address this does not necessarily mean broadband is not available and we suggest that you check availability on the ISP websites.