

Mobile Signal Surveys

Overview

Our Signal Surveys show the actual coverage that real-world users are getting on their phones, not a projection based on modelling or an estimate relying on test equipment rather than actual mobile devices.

This is an essential tool for anyone seeking to optimise connectivity in their area, particularly regulators, local authorities and economic development agencies. It provides the evidence you need for discussions with partner agencies.

About us

PolicyTracker, which specialises in wireless sector research, produces signal surveys that show mobile download speeds, not-spots, signal strengths and bands used by all mobile operators. This rich data means comparisons can be made between operators, regions and countries. It is collected using SignalTracker, a mobile app developed by PolicyTracker, and is based on users' real experience.

This information is displayed in maps, charts and tables and is a vital resource for all levels of government, economic development agencies, regulators, the transport sector and mobile companies themselves.



What services can we provide?

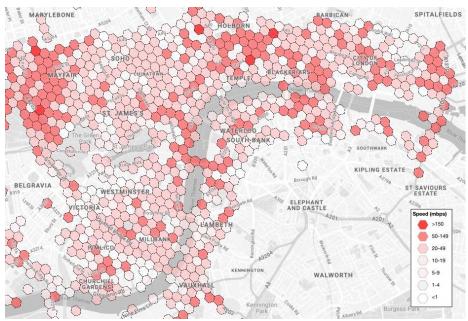
- A detailed breakdown of the actual mobile connectivity in your area
 - Showing download speeds, signal strength and bands
- Interactive coverage maps to display on your website
 - The actual coverage rather than a projection
- A comparison of the service provided by different operators
 - Help the public get the best service
- The level of real-world 5G deployment
 - o See which mobile generations are being used in your area
- An analysis of the mobile bands deployed
 - See opportunities for spectrum sharing
- A benchmarking of your area
 - How does it compare nationally and internationally?
- Monitor whether coverage obligations are being met
 - Saves time for regulators and policy-makers
- An understanding of connectivity on transport routes
 - Our Signal Surveys can cover roads and rail services
- Raw data for your own analysis
 - o Anonymised data to make your own calculations

Showing coverage by download speed

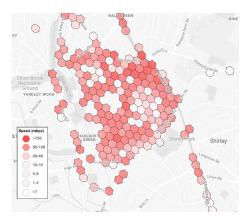
The maps below show download speeds from three UK Signal Surveys covering Central London, the suburb of Olton on the outskirts of Birmingham and the village of Owston Ferry in North Lincolnshire.

This highlights the slower speeds in rural Lincolnshire and network congestion in the busy district of Soho in London. The maps are the same scale and give average speeds for all operators.

The maps can be displayed on your website.



Central London



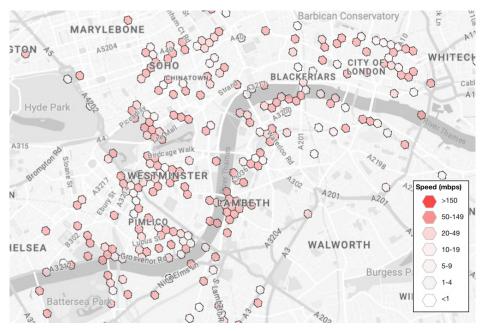
Olton, Birmingham



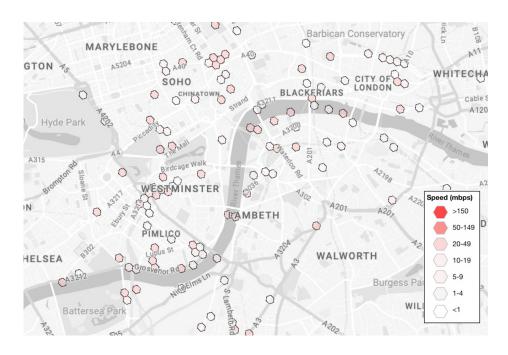
Owston Ferry, North Lincs, pop 1,100

Identifying not-spots

The functionality on the download speed map allows you to identify areas of poor coverage. The maps of Central London below show areas where download speeds are <20 Mbps and <10 Mbps, respectively.



Central London: Download speeds <20 Mbps



Central London: Download speeds <10 Mbps

Showing the operator with the best coverage

The maps below show download speed tests above 20 Mbps for the individual operators.

They are based on simultaneous testing of the four UK networks. EE and Vodafone have Central London's most consistent coverage while O2 and Three have more gaps, although Three has some very high download speeds.

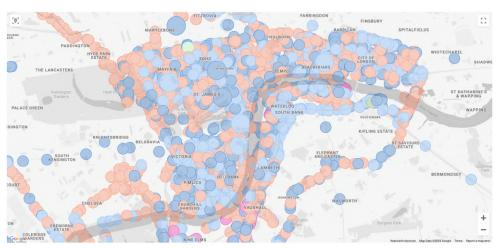


The parameters on the above maps can be changed to show different download speeds, e.g. increasing the lower threshold to 30 Mbps and above or focusing on the highest speeds by only showing those above 150 Mbps.

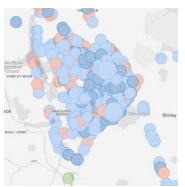
Which mobile generation is being used?

Download speed and network quality are partly dependent on the mobile technology generation and in the case of 5G the additional functionality can also benefit local economies. The SignalTracker app shows where 5G is actually available to consumers and also the variety on offer. This ranges from the most advanced - 5G Standalone (5G SA) - to "icon only 5G" where the actual connection is 4G.

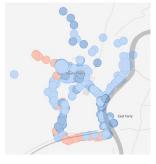
The maps below show that 5G is more widely available in London.



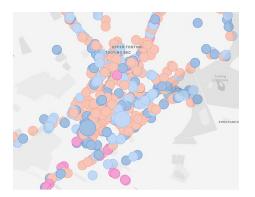
Central London



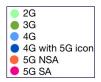
Olton, Birmingham



Owston Ferry, North Lincolnshire



Tooting, an inner London suburb



Which mobile bands are being used?

The SignalTracker app captures all the mobile bands being transmitted from any base station within range. This provides a wealth of data about spectrum deployment and helps to explain the service <u>that</u> users receive. Higher speed bands deliver higher data download rates but have a shorter range.

In the maps below, the higher bands are shown in red and orange and the sub 1 Ghz bands are shown in shades of green. In rural areas like the example in Lincolnshire, there is very little deployment of the higher frequency bands, which partly explains the lower download speeds.



Central London



Tooting, inner London

Owston Ferry, North Lincolnshire

Signal Surveys methodology

The Signal Surveys are done by travelling around the target area with our testing kit of mobile phones, which monitor all the mobile networks.

This can be done by the PolicyTracker team or by installing testing kits in client vehicles, such as refuse lorries or fleet vehicles.

How the data is delivered

This data is available as a raw data download and in a series of preformatted maps and tables showing download speeds, individual operator performance, not-spots, bands used and mobile generations used. Some of these are shown above.

User-generated data

The SignalTracker app can be downloaded for free from the Google Play store and all the data collected in this manner can also be accessed at no extra fee.

For example, clients or local communities can download the app themselves to get a more detailed picture of a particular area. This data will be included as part of the Signal Survey.

Additional consultancy

The data collected can be analysed by PolicyTracker's mobile experts to identify issues and suggest solutions. The maps and charts can also be customised to suit specific needs. This work is carried out for an additional fee.

About the Signal Tracker app

<u>SignalTracker</u> is an <u>Android app</u> that allows consumers to compare the service from different operators using metrics such as signal strength, speed and bands used. Users can save this information for different locations: see this <u>YouTube video</u>. SignalTracker also shows whether you have an actual 5G connection, as indicated in the screenshot.

To find out more...

For further details or a quote, please contact Martin Sims, Managing Director, PolicyTracker, martin@policytracker.com +44(0)20 7100 2875 (office)

