Mobile Coverage Checker

Introduction

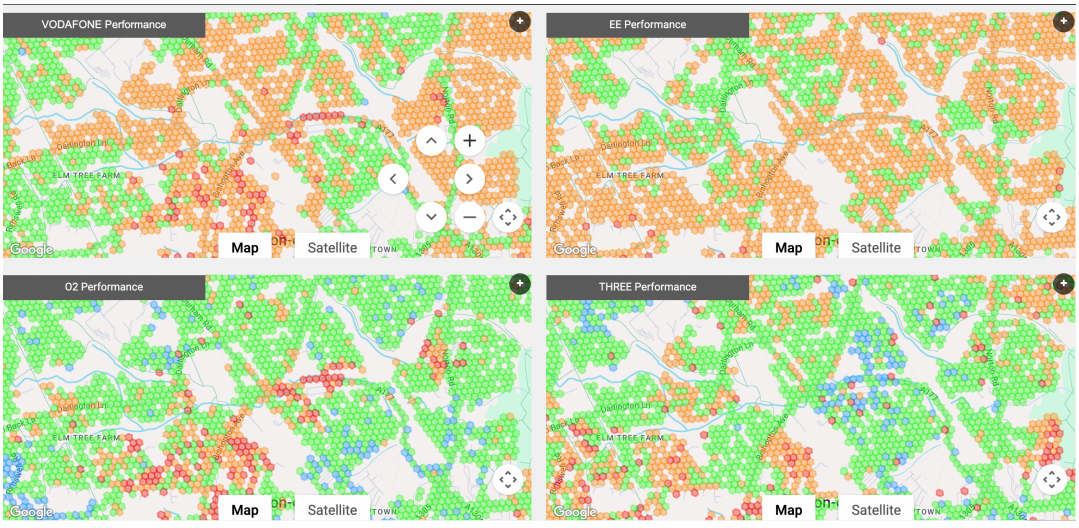
Inakalum's Mobile Coverage Checker provides street-level mobile coverage and performance analysis for the main mobile network operators in the UK. All networks were tested simultaneously, providing a true like-for-like comparison of coverage (signal strength) and performance (upload/download speeds). Inakalum generally carries out mapping projects in partnership with local authorities, most often placing measurement kits in waste collection vehicles operated by councils or their waste collection partners. This deployment model provides broad coverage of areas, providing valuable data across all streets covered by the waste collection vehicles.

Using The Site

When you first load the Coverage Checker, the Performance maps for your area should automatically show the coloured polygons overlaid on the map area, indicating our assessment of the performance of each of the 4 main Mobile Network Operators in the area - EE, Three, Virgin Media O2, and Vodafone. If the maps do not show any data, try clicking the Reload button 🔄 to refresh the onscreen data.

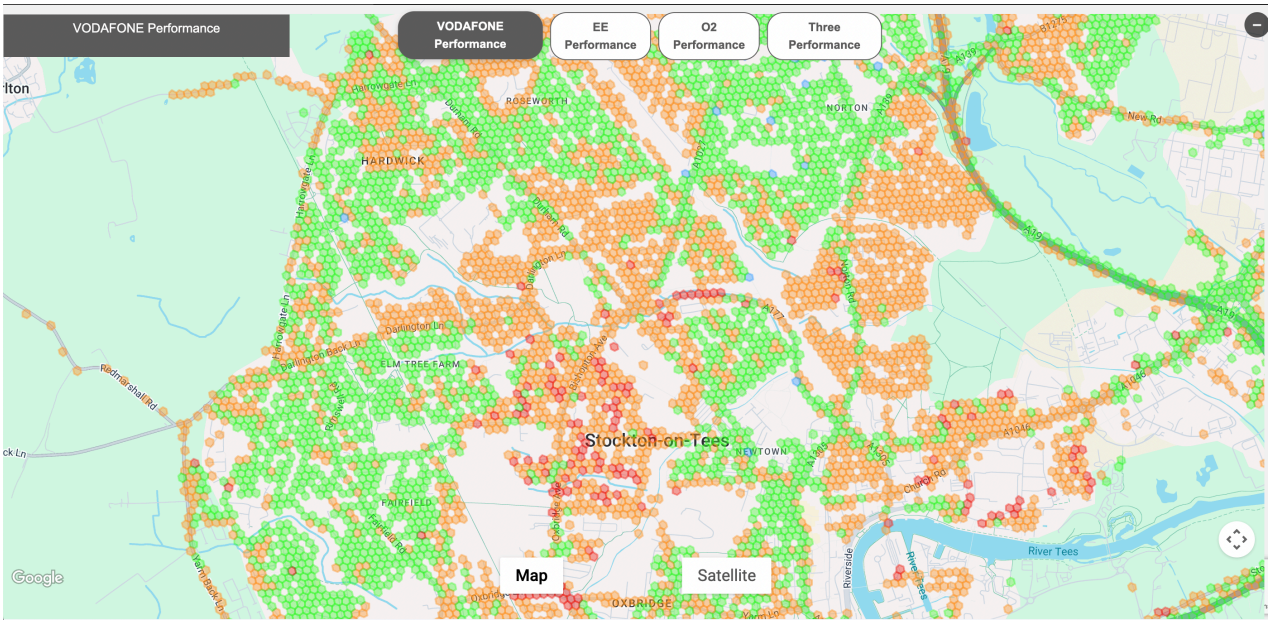
Multi-Network Maps

On the desktop version, the default display option is to show all 4 network operator maps together. This allows the user to compare the mobile coverage and performance of each of the networks in any area.



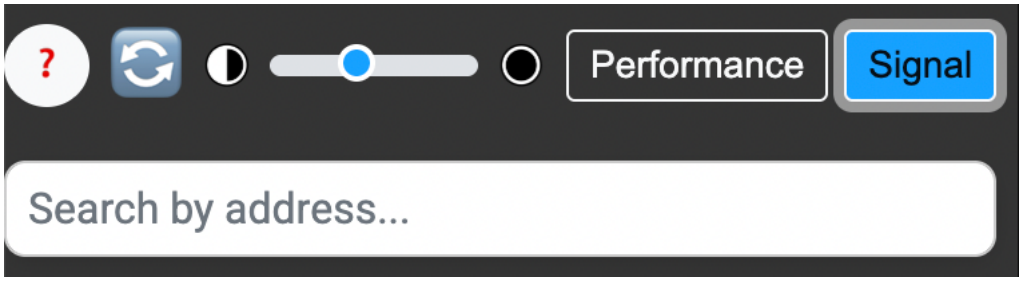
Single-Network Map

On the multi-network map display, each map has a '+' button in the top right hand corner - click this button on any network to switch to the Single-Network Map view. This view allows you to show a larger map area for any individual network operator. There are buttons for each network operator at the top of the map which allows you to switch between network operators on the larger map area. To return to Multi-Network Map view which displays all 4 network maps, click on the '-' button on the top right side of the Single-Network Map view.



Toolbar

On the top of the page on the left hand side, you'll see the Toolbar for navigating the site. Each of the Toolbar controls is described below.

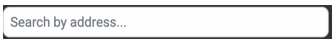


Reload Button

If moving or zooming the maps does not load data for the new map area for any reason, try clicking the Reload button, which will initiate a manual refresh of the data for the map area displayed. After the Reload button is clicked, you should see a "Loading data..." pop-up label on the maps to indicate that data is being retrieved from the server. If no data appears on screen or this message does not appear, check your internet connection (try another site, such as a news website, on a different tab to see if that works) to make sure you have a good connection. If the

"Loading data…" messages appears but the maps still show no data, it's possible that there is no data for the map area you're viewing. In such cases, zoom out on the map to show a broader area and see if there is data there. If you can't see any data when the map is zoomed out to the maximum level, try reloading the page.

Address Search



Enter an address here and click on any address in the list offered to zoom the map into that address.

Performance/Signal Buttons

Toggle between the Performance (data speeds) and Signal (coverage) maps by clicking these buttons.

Contrast Slider

Move the slider to vary the contrast of the map polygons from light (left side) to dark (right side).

Help

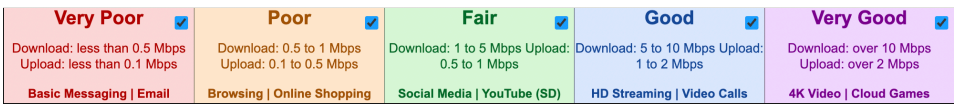
Click the Help icon to display the online Help.

PERFORMANCE MAPS

These maps provide an assessment of the mobile data speeds you can expect in an area, with colour-coded hexagons overlaid on the map area to indicate measured performance. The data for these hexagons is taken from real measurements carried out by Inakalum in the areas covered. Mobile user experience is affected by both upload and download speeds, and Inakalum's mapping projects measure both.

Speed Bands

The speed band allocated to a particular map cell is determined by both the upload and download speeds, and the thresholds for both must be met to achieve a band colour. Speed bands show both average upload and download threshold speeds that need to be achieved to attain a specific speed band rating, with each band's speed ratings listed below the band heading. Each speed band also has some popular mobile uses that you can expect to perform reasonably well at the threshold upload and download speeds for the band. The services we've listed for each band will also include all the services of lower speed bands, for example Poor data speeds includes Browsing and Online Shopping, but will also include Basic Messaging and Email services listed for Very Poor speeds.



Very Poor

Download Speed less than 0.5 Mbps; Upload Speed less than 0.1 Mbps

Your mobile device will struggle to provide any service in areas where we detected Very Poor performance. You may get basic emails (without attachments) to send and receive, or basic messaging services like WhatsApp to send or receive messages without images or videos, but you can expect a lot of 'spinning wheel' experiences on your mobile device, where apps and services are very slow to respond, or may not respond at all. If an area shows Very Poor performance on our maps, check the Signal maps to see if there is good signal coverage in the area on a particular mobile network. If the Signal maps show Fair or better Signal coverage, but the Performance maps still show Very Poor performance, it is most likely due to network congestion caused by insufficient capacity of the mobile network to cope with the data demands of the users in the area when the measurements were taken. Mobile capacity problems, rather than signal coverage problems, are more often the cause of poor mobile service in urban areas, where there are too many users competing for the available network bandwidth at busy times on the network.

Poor

Download Speed 0.5 to 1 Mbps; Upload Speed 0.1 to 0.5 Mbps

At these data speeds, you can expect reasonable service for online web browsing, such as static news sites (without videos), or online shopping.

Fair

Download Speed 1 to 5 Mbps; Upload Speed 0.5 to 1 Mbps

At these data speeds, you can expect reasonable service on social media sites and apps (Instagram, TikTok, Facebook, for example), or video streaming at standard definition from services like YouTube.

Good

Download Speed 5 to 10 Mbps; Upload Speed 1 to 2 Mbps

At these data speeds, you can expect reasonable service on High Definition Video Streaming services such as YouTube HD, and Video Calling on apps like FaceTime or WhatsApp.

Very Good

Download Speed higher than 10 Mbps; Upload Speed higher than 2 Mbps

At these data speeds, you can expect reasonable service on all apps and online services, including 4K video streaming and cloud gaming.

Signal Maps

These maps provide an assessment of the mobile coverage (bars on your phone ) you can expect in an area, with colour-coded hexagons overlaid on the map area to indicate measured signal strengths. The data for these hexagons is taken from real measurements carried out by Inakalum in the areas covered. Mobile user experience relies on reasonable signal coverage in an area and areas with strong signal coverage are more likely to deliver good mobile user experience.

However, network capacity plays a big part as well, and often areas with good signal coverage can deliver poor mobile performance at busy times on the network.

Signal Bands

In technical terms, mobile signal strength is measured in decibel-milliwatts (dBm), but most people will be more familiar with the bars on their mobile device which indicates the strength of the signal your device is currently detecting. Signal bars on mobile devices usually range from 0 to 4 bars, but some devices may have 5 bar indicators. The band thresholds we use range from Very Poor (no bars, very weak or no signal) to Very Good (4 bars, very strong signal).