

UK Best Combined Connectivity Experience Test Results and Findings

A report
involving
the UK's
major mobile
operators
and their
associated
ISP partners.

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Summary

Over the last six months, GWS has collected performance data to determine which major mobile operator / ISP combination has the best combined connectivity experience. Specifically, GWS analysed over 143,000 speed and reliability tests from across the UK's major mobile operators and their associated ISP partners with bundled partnerships in place. This is the first performance measure of its kind that combines results from both mobile operators and ISP partners into one score. Virgin Media O2 had the highest score and thus was considered to provide the Best Combined Connectivity Experience.

In today's world, consumers expect a reliable and fast mobile internet connection at all times. Regardless of location or purpose, they want the data connection to work. And more people are taking out bundled WiFi/mobile deals due to increased market consolidation and to save money during the cost of living crisis (source: [Ofcom, Pricing Trends for Communications Services in the UK](#)). Further, data usage is up – people are using more data than ever before (average monthly data use is up 52% per month; source: [Ofcom, Pricing Trends for Communications Services in the UK](#)).

In fact, GWS's panel of 5,200 participants shows that consumers average over a quarter (27%) of their waking day on their phones performing data tasks. Top five activities are checking and posting content on Facebook, browsing (via Chrome), streaming YouTube, watching and creating videos on TikTok, and communicating via WhatsApp. GWS has therefore chosen to focus on data connectivity as it's an area that is of growing importance to consumers. We wanted to report on the real-life performance of mobile and WiFi bundle offerings and provide an informed view of the connectivity experience people are getting on their phones wherever their day takes them.

Details on Tests and Data Collected

- ✓ Tests were run at random times, seven days a week.
- ✓ Tests measured reliability and speed across uploads, downloads, and video streaming on both the mobile network and WiFi.
- ✓ Tests were conducted on the devices of real-life users from GWS's proprietary opt-in consumer panel of 5,200 participants (18+).
- ✓ Over 143,000 tests were conducted between October 24, 2022 and April 24, 2023.
- ✓ In addition to network performance data, GWS also collected insights into app usage and other mobile trends.

5,200

PARTICIPANTS
AVERAGE

27%

OF THEIR
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DATA TASKS.



Network Test Results

Overall Ranking of UK’s Best Combined Connectivity Experience

Virgin Media O2 has the UK’S Best Combined Connectivity Experience, the first performance measure of its kind combining results from across both mobile operator and ISP partners in one score.

Combined Providers		GWS Test Score – Overall Rankings
Mobile	Wifi	
O2	Virgin Media	1
EE	BT	2
Sky Mobile	Sky	3
Vodafone	Vodafone	4
Three	Three	5

Test KPIs – Rankings, Throughputs, and Reliability Percentages

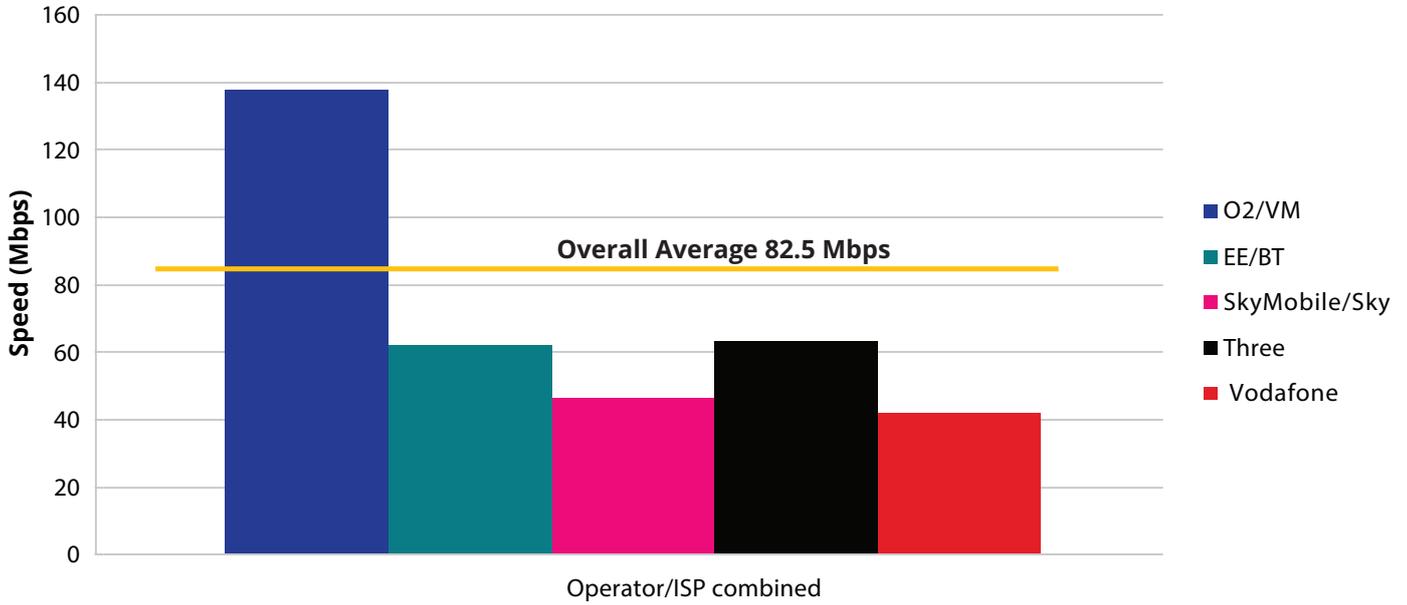
Over the six months tested, the fastest download speeds by a combined provider were seen by Virgin Media O2 at a staggering 138Mbps average, followed by BT/EE at 64Mbps. With average download speeds across all major combined providers currently sitting at 82Mbps, Virgin Media O2 was the only provider to offer above average speeds.

When looking at uploads, Virgin Media O2 offered impressive performance again, leading the way at 26 Mbps. BT/EE was just behind at 21Mbps, with Sky/Sky Mobile (17Mbps), Vodafone (16Mbps) and Three (15 Mbps) trailing much further behind.

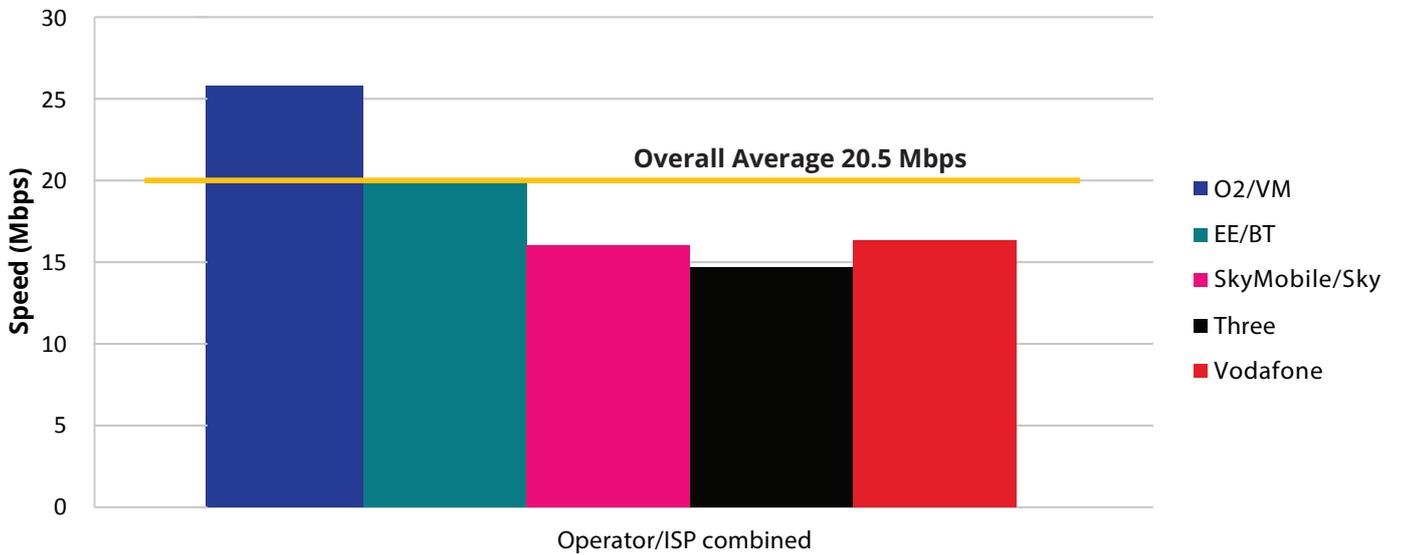
When looking at reliability, GWS measured whether or not simulated tasks completed or not, and found over 96% success rate across all providers (operator and ISP) tested.

Combined Providers		Download Throughput Rank	Upload Throughput Rank	Reliability Rank
Mobile	Wifi			
O2	Virgin Media	1	1	1
EE	BT	2	2	1
Sky Mobile	Sky	4	3	1
Vodafone	Vodafone	5	3	4
Three	Three	2	5	5

Download Speeds



Upload Speeds

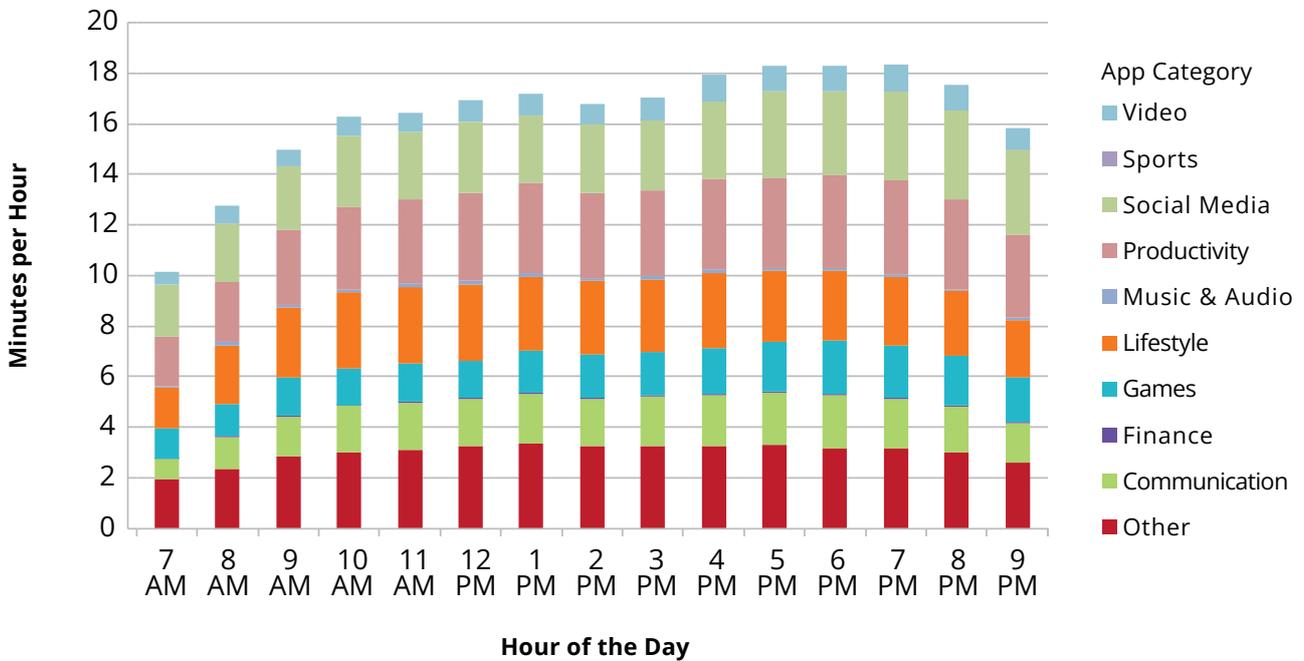


Additional Tests Conducted: GWS's testing also looked into the consumer impact of these results, testing one of the most internet reliant consumer activities – video. Virgin Media O2 not only had the fastest download speeds, but when watching videos, the provider also tied with Sky/Sky Mobile for the highest combined resolution and lowest buffering times.

App Usage and Consumer Sentiment

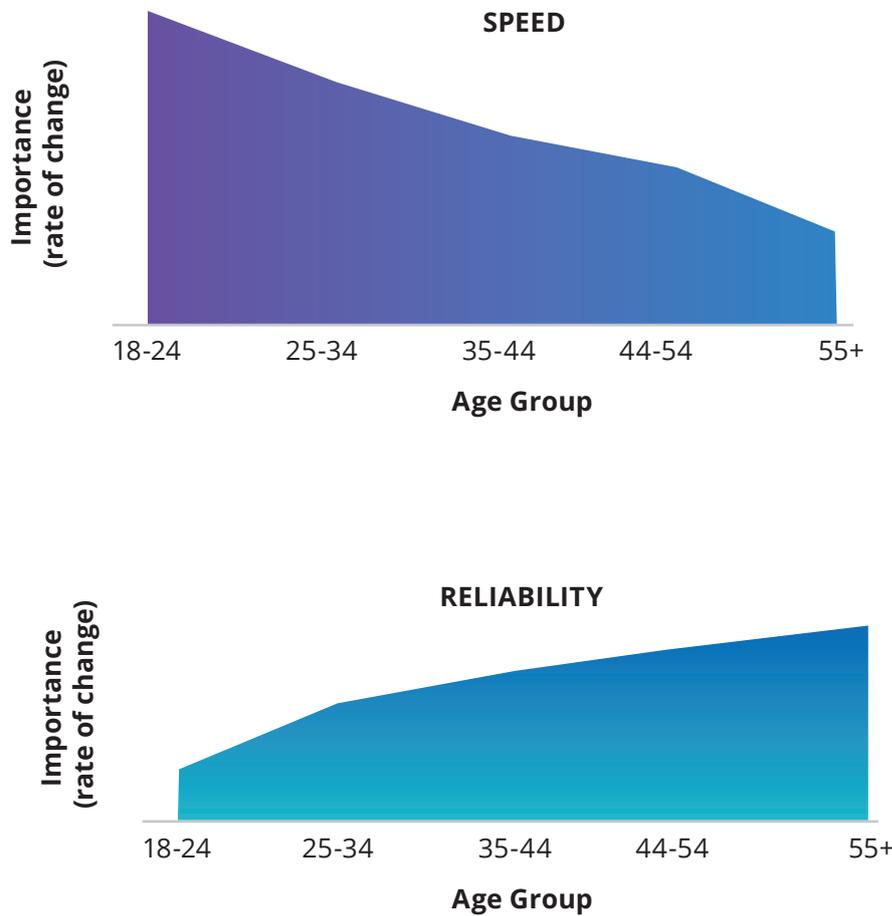
As mobile services continue to grow in popularity, GWS found that the average consumer now spends over a quarter (27%) of their waking day on their phones, with productivity and social media apps leading the way. UK consumer use of video-led apps, such as Netflix, YouTube and Disney+, was also consistent at all times of the day, regardless of whether a person was connected to WiFi or using mobile data.

Time Spent on Phone During the Day



Consumer opinion and action - reliability and speed matter: The importance of a good connection with high throughputs cannot be stressed enough as consumers spend a noticeable amount of time on their devices engaged in data-intensive activities such as streaming and conferencing, daily activities such as banking and shopping, and “downtime” activities such as social media and games. This is further underpinned by the importance that consumers place on reliability and speed. When asked, GWS's mobile consumer panelists considered reliability and speed as the two most important aspects when using their smartphone on either mobile or WiFi. And what's interesting is that the importance of speed decreased with age while reliability increased.

Speed Important with Younger, Reliability with Older



Methodology



Source of data: All data was collected from GWS’s opt-in consumer panel of 5,200 participants (18+) from around the UK. This is a panel of real-life users who use their phones and tablet devices as normal throughout the day so that the data GWS gathered provided the most accurate picture of the nation’s mobile connectivity experience. From this nationally representative sample of people, GWS conducted a series of tests in the background, measuring and analyzing network reliability and performance.



Tests - when, what type, and how many: As mentioned earlier, GWS conducted over 143,000 speed and reliability tests during a six-month test period (October 24, 2022 through April 24, 2023) to determine the results. Tests were run at random times, seven days a week, and looked at reliability and performance across uploads, downloads, and video streaming on the mobile network and WiFi. Only combined connectivity tests were included, meaning that only tests from a mobile network and that operator’s broadband partner were factored into reliability/performance scoring. For example, mobile test results involving a panelist that has services with EE were paired with test results that the panelist had from BT.



How the “Best Combined Connectivity Experience” score was determined:

GWS measures reliability and performance by looking at whether or not a simulated “task” completes as well as the speed at which the “task” is completed. Completion (task success rate) and speed are determined by conducting multi-threaded HTTP download and upload tasks as well as video performance tasks. Task success rates and speeds have equal weighting in terms of the calculation to determine the ultimate Best Combined Connectivity Experience score for each provider. Within speed, download and upload tests have equal weighting. In addition to weighting, formula components are normalized and the resulting scores are statistically tested to determine specific rankings.



Additional Details: Data was anonymously collected and reported in aggregate for market research purposes only. As well as benchmarking connectivity performance, GWS also conducts regular surveys that poll panelists about how their network is performing (NOTE: consumer survey data mentioned in this report was not factored into the calculations to determine the scores for Best Combined Connectivity Experience). All information collected was weighted to a user’s demographic representation of the U.K. population (aged 18+). Tests were conducted on Android smartphones/tablets, collecting both indoor and outdoor connectivity data.

ABOUT GWS

For most consumers today, their mobile device is their life’s remote control. As an independent mobile insights consulting firm, GWS measures every aspect of how people live, work, and play via their mobile devices – as well as how mobile network performance affects them.

Combining our market-leading network benchmarking technology and methodology with deep behavioural data, we help businesses and organizations to drive innovation and deliver better customer experiences through mobile insights, anywhere in the world. Championing the needs of mobile users by understanding and testing the things that matter to them, we’ve evolved our technology and services in step with the needs of industry and consumers for over 25 years.

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