

THE RESULTS ARE IN

The RootMetrics annual network performance assessment



A RootMetrics special report by Patrick Linden/March 13, 2014

It's time to clear the air

At RootMetrics, we have a simple belief: you deserve the best mobile experience possible. Of course, understanding which network offers the "best" service is trickier than it sounds. Consumers are bombarded by conflicting claims, confusing terms, and competing definitions. What you really need is clear, unbiased information and standards that cut through the noise and show exactly how the networks compare in the ways you use your phone on a daily basis.

We're here to help. Today we **introduce the UK RootScore Report**, an **industry-first** comparison of network performance across the entirety of the UK. It is, quite simply, the most comprehensive study of UK mobile network performance ever undertaken.

These are results that you can trust: we're consumers like you; we're independent; and we built our study on top of a massive testing cycle supported by rigorous statistical analysis. It's time to clear the air and see which network truly offers the best performance.



See the entire picture

The UK RootScore Report is ground-breaking. But we're not stopping there. We also believe in looking at the full picture of mobile performance. You deserve information that gives you insight into mobile performance across all the spaces of your mobile life: You're part of the UK, a nation within the UK, a city, and a neighbourhood—we give you mobile performance information that connects the dots across each of these levels.

After all, everyone is different, with different mobile needs. Only RootMetrics gives you a complementary series of reports that offers a truly comprehensive view of mobile performance. Our **UK RootScore Report** lets you see which network is the most reliable and which is the fastest from a UK-wide perspective. If you want to see results for your home nation, turn to our **UK-Nations RootScore Reports**. Of course, we also offer **Metro RootScore Reports** in 16 markets across the UK.

If you need even more localised information, our **CoverageMap** lets you drill down to the street-level to see a summary of our professional testing combined with crowdsourced results from users of our app. Only RootMetrics gives you mobile performance insights at every level so that you can find the information most relevant to the spaces of your mobile life.

To that end, we are pleased to bring you this **first-of-its-kind UK Mobile Performance Review**. Read on to discover the results of our ground-breaking UK-wide testing, a recap of performance at the UK-nations level, and a look at what we found across our metro testing during the second half of 2013.



See for yourself.



The numbers behind the UK RootScore Report

A report with the scope of our national study has never been accomplished before; not surprisingly, measuring performance across all of the UK required a new magnitude of testing. We visited all four nations within the UK. And within each, we didn't test just the big cities. After all, coverage is often notoriously different between urban centres and more rural locations.

We have a dedicated analytics team at RootMetrics. They make sure everything we do is statistically valid and scientifically sound. Because looking only at each nation's major cities wasn't enough, our analytics team established a sampling scheme that assured our testing would reflect the entire population of each nation.

All told, we drove more than **23,000 miles** while testing in towns, villages, and cities across the UK. That's the equivalent of driving from Land's End to John O'Groats and back 27 times. For more on how and where we test, see our [methodology page](#).

Because we're consumers too, we believe testing should take place in the places that people typically use their phones. So, in addition to drive testing, we also tested **1,000 indoor locations** during our UK-wide study.

All of this meant that we didn't collect just a small handful of tests.

Not even close. We collected over **840,000 test samples** during our testing of the UK. To put that in perspective, consider that there are 82.7 million mobile subscriptions in the UK. We collected a test sample for roughly every 100 phones in the UK.

In short, these aren't just anecdotal results; these are insights that you can trust, backed by statistical verification and the most massive and comprehensive testing cycle ever undertaken in the UK. It's a cutting-edge study designed to give you the most thorough view of mobile performance available anywhere.



For more on how we test, see our [methodology page](#)



Revealing the results

Mobile performance is a complex mix. But our RootScore Report series makes it easy to **compare networks across all the spaces of your mobile life**. We've brought together the results of our testing during the second half of 2013 to give you the complete picture of mobile performance, from the UK-level all the way down to a recap of our metro results.

UK RootScore results

With its early rollout of 4G, EE has established itself as the UK's benchmark. **EE swept all of our UK-level awards**, placing first in not just its reliability and speed indices but also our overall, mobile internet, call, and text performance categories. EE's 4G speeds were especially impressive, leading to wide separation between EE and the other networks in our Speed Index and contributing to EE's large margin of victory in our mobile internet scoring. The other networks simply couldn't keep up with EE in our look at performance across the UK.

EE's margin of victory, however, was much smaller in our Reliability Index, with Three only trailing EE by 3.5 points. Three's showing at the UK level, in fact, might turn some heads. In addition to its strong showing in our Reliability Index, Three also finished second in our Overall and Mobile Internet RootScore Awards. Three did finish last in our Speed Index, but the separation between it and the third-place network (Vodafone) was slight.

It was a solid but not spectacular performance for O2, which took second in our Speed Index and Call and Text RootScore Awards. O2's reliability, however, was much lower than what we saw from EE and Three.

Vodafone did not have a strong showing in our UK-level results. Vodafone finished last in five out of our six performance indicators and its reliability in particular trailed what we saw from the other networks. Changes might be underway, but at the time of testing, Vodafone was clearly the last-place network in our study of mobile performance at the UK level.

NATIONAL WINNER



Overall Performance
ROOTSCORE AWARD WINNER
EE

UK ROOTSCORES



OUTRIGHT WINS AND 1ST PLACE TIES

Category	EE	O2	Three	Vodafone
Overall	4	0	0	0
Call	4	1	1	0
Mobile Internet	4	0	1	0
Text	4	0	1	0

UK-Nations performance summary

Because a true picture of network performance needs to account for all of the spaces that make up your mobile life, we also offer our UK-Nations RootScore Reports. If you'd like to see results from a nation-by-nation perspective, simply zoom in one level on our interactive RootScore Report page.

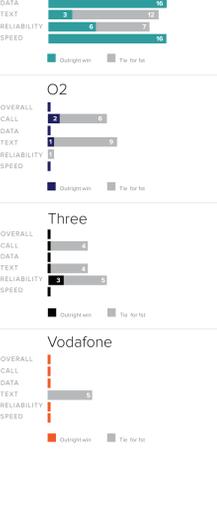
As at the UK level, **EE clearly offered the best network in our testing of the UK nations**. In what was a dominant performance in every nation. Including results from our reliability and speed indices, that's 24 first place finishes in 24 opportunities.

As you can see in the summary chart, no other network even came close to matching EE's tally of nation-level wins. Once more, Three trailed EE but pulled away from O2 and Vodafone with particularly impressive reliability performances in our nation-by-nation tally; Three shared first-place honours with EE in our Reliability Index in Northern Ireland, Scotland, and Wales. Whilst EE is certainly the clear favourite, **Three could be worth a look if reliability is your primary concern**.

O2's only first-place finish was as part of a three-way tie in our Northern Ireland call results. Wales was a particularly difficult nation for O2. The low end of our scoring scale includes a minimum performance threshold that represents a level where service interruptions or failures become overly disruptive to your experience. In Wales, O2 failed to meet the minimum performance threshold in our look at mobile internet and in our Reliability Index.

Vodafone never cracked the leader board, but we saw an interesting split in its results. Whilst its performance on our Speed Index in each nation was similar to what we found with O2 and Three, it recorded low scores on our Reliability Index in each nation. In fact, Vodafone failed to meet our *minimum performance threshold* in the Reliability Index in three out of the four nations. Vodafone also failed to meet the minimum threshold performance for mobile internet in all four nations. In short, we might have found respectable speeds but the chance of network failures was also much higher.

COUNTRY	RELIABILITY INDEX	SPEED INDEX
England	EE	EE
Northern Ireland	EE/Three	EE
Scotland	EE/Three	EE
Wales	EE/Three	EE



The Metro RootScore Report tally

Zooming in one more level in our complementary RootScore Report series brings you to metro results. Our metro reports give you more local detail than is available with our Nation and UK RootScore Reports. Each of these RootScore Report types complements the other levels. Only RootMetrics lets you look at mobile performance from the broadest to the most localised level.

We tested 16 UK metros in the second half of 2013, and EE pulled away here as well. In fact, EE placed first outright in 16 out of 16 markets in our Overall, Mobile internet, and Speed Index results. They also won or shared first place honours in 15 out of 16 Text RootScore Awards and 14 out of 16 Call RootScore Awards, whilst finishing atop of our Reliability Index 13 out of 16 times. In short, EE was both the fastest and most reliable network in our metro-level tally.

As we saw in our UK-overall and UK-nation results, Three once more proved to be the second-most reliable network: Three placed first outright or tied for first in eight markets in our Reliability Index. O2 also managed to share first place in our Reliability Index in one market.

Where the other networks competed most favourably with EE was in the text and call categories. O2 won or tied for our Text RootScore Award ten times, Vodafone did so five times, and Three did so four times. In our Call RootScore tally, meanwhile, O2 won or tied for first in our call category eight times, while Three tied for first place four times.

Putting it all together. Now it's your turn.

Our **RootScore Reports** let you explore the numbers for yourself. Here, we've offered a summary of results to give you the overview, but you can drill into individual reports for even greater detail. Start with our UK results for the broadest look at network performance and to see how all of those network marketing claims stack up against real-world testing done from the consumer point of view. Then zoom in a level to check performance in your nation. Move down one more level and you can find detailed information for the 16 largest UK markets.

If you're in need of street-level insight beyond our RootScore Reports, head over to our CoverageMap. Combining our professional testing with results crowdsourced from users of our free app, the CoverageMap can give a pinpoint look at how the networks perform all the way down to the neighbourhood level.

Because the mobile landscape changes so quickly, we're constantly testing and offering new reports. As 2014 advances, we'll be interested to see how the networks compare to the performance parameters recorded in this inaugural summary report.

With greater adoption of 4G from all of the networks, it will be interesting to see if EE can remain atop our results or if the playing field will begin to level. Stay tuned.

With our complementary suite of RootScore Reports and a CoverageMap that offers a combination of professional and crowdsourced results down to the street-level, we're setting the standard for mobile performance information. We give you the tools to connect the dots and see the entire picture of mobile performance. From nation to neighbourhood, RootMetrics has you covered across all the spaces of your mobile life in the UK.