

Substantiation for EE's Parallel Campaign from 03.08.21

#### Substantiation of Claims

### Claim:

Liverpool's Best Network
Liverpool's No.1 Network
Manchester's Best Network
Manchester's No.1 Network

### **Substantiation**

## Summary

EE's claims to be Liverpool and Manchester's best network are based on RootMetrics' extensive testing which assesses calls, texts, data, speed, accessibility and reliability using the latest devices and a geographically representative methodology. The claims are based on network testing that takes account of all aspects of network performance.

### RootMetrics Awards

Our independent mobile analytics firm publishes a series of reports, titled RootScore® Reports ("RootScore Reports") at multiple levels of geography, including 16 of the most populated metro areas, four nations, and the UK. The RootScore Reports rank the UK's four major mobile network operators ("MNOs") on a number of performance metrics, including "Network Reliability", "Network Speed", "Data Performance", "Call Performance" and "Text Performance". The report also ranks MNOs on "Overall Performance". There was a new award introduced in 2020 for 'Network Accessibility.' The results of these awards show that in Liverpool and Manchester EE was the winner in the overall (best) network performance category in 2021 H1 testing, offering the best combination of mobile network performance measurements.

### Why are these results robust?

RootMetrics uses scientific methodologies to design tests, measure activities, and collect data about mobile network performance that are representative of a consumer's mobile experience within a given market. RootMetrics then employs statistical techniques to verify and validate the results. This approach ensures all operators are measured on a level playing field, removes unintentional bias, and allow RootMetrics to provide actual, in-the-field data that confirms or challenges performance numbers that are otherwise only theoretical and based on ideal conditions. Weighting and stratification methods are used to ensure that test data correctly represents the overall national population distribution.

### RootMetrics Testing Methodology

RootMetrics uses a well-controlled "drive" test to perform a geographically and temporally diverse "apples-to-apples" comparison of the four major wireless operators' network performance. Testing is done simultaneously across all four operators to show a same-place, same-time view of performance differences between operators.

RootMetrics performs these tests using unmodified, off-the-shelf smartphones acquired from each operator. Testing in the first half of 2021 was done using the Samsung Galaxy Note 20 Ultra 5G for EE, O2, and Vodafone and the Samsung Galaxy S20 5G for Three.

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RootMetrics physically drives the phones around the country, to all four nations and extensively in the most populous 16 urban areas, performing a variety of performance tests on each operators' network. To ensure that its data remain current, RootMetrics performs tests in each nation at least every six months.

In the first half of 2021, RootMetrics personnel drove over 27.5k miles around the United Kingdom. RootMetrics obtained approximately 636k tests, assessing each network's speed, reliability, and accessibility when calling, texting, or sending/receiving data.

RootMetrics tests data, call, and text performance by downloading and uploading files, downloading small files that represent web and app usage (secure and non-secure connections), making mobile-to-mobile phone calls, and sending and receiving text messages. Test data is categorized into "speed", "reliability", and "accessibility" measures (as, for instance, JD Powers might categorize and assess different aspects of auto performance or safety). Drive tests are conducted along freeways and motorways, major arterials, and residential streets where the population within a market generally lives and travels. Due to government restrictions and safety concerns caused by COVID-19, testing from the first half of 2020 does not include testing at indoor locations.

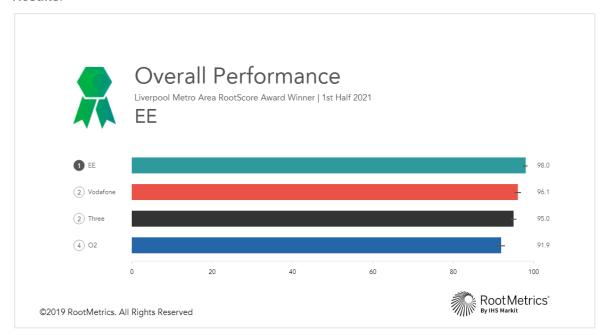
RootMetrics' drive-based methodology successfully controls for numerous variables that fundamentally distort the data obtained through certain alternative, "crowd"-based methodologies. In so doing, RootMetrics ensures that the results obtained accurately reflect the difference between operators' actual network performance and not—for example—differences in types of devices owned by different operator customers, differences in operator customer testing locations, or differences in a consumer's willingness to run a speed test at a particular moment. RootMetrics testing also includes calling and texting, which is completely lacking in crowd-based data.

## RootScore Results - Liverpool

Testing dates: 23-26 May 2021

Miles driven: 811

Results:



# RootScore Results - Manchester

Testing dates: 9-13 May 2021

Miles driven: 1,040

Results:

