best in test

For adding something on top in Brazil and reaching an overall score of 762 dots in mobile network benchmarking survey we proudly award this certificate to

Vivo Brazil

Score 762 out of 1000

Kalean Orman

Hakan Ekmen Global Networks Lead, Comms Industry





Report facts

5.9 billion samples



24 weeks, W38 2023 to W09 2024

Data collection time period



43.5 thousand overall providing samples Users



98.6% of the 'built–up area' covered **98.8%**

of the 'Population area' covered



umlaut certificate

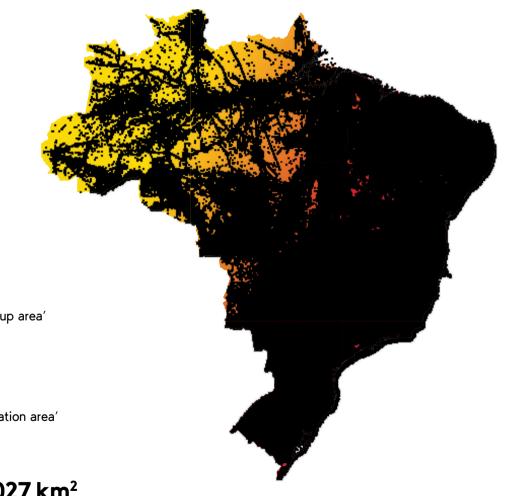


ŧ

4

Testing area







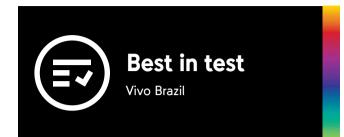
tested area

98.6% of the 'built-up area' covered

98.8% of the 'Population area' covered

 \odot

3,662,027 km² size of tested area





ŧ

Best rated user download speed

Vivo Brazil



Best rated user upload speed

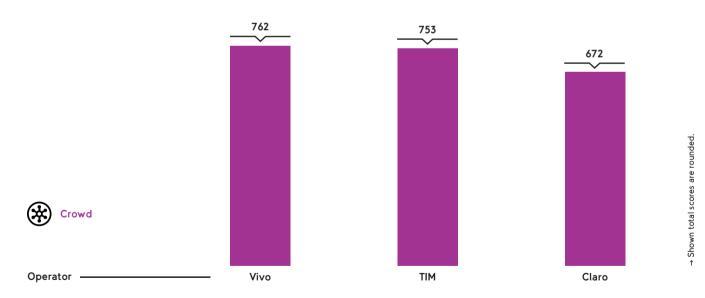
Vivo Brazil



Score and breakdown

Vivo Brazil achieved the highest overall score among competitors with 762 dots out of 1000.





| Category | max. | Vivo | TIM | Claro |
|--------------------|------|------|-----|-------|
| Broadband Coverage | 400 | 301 | 302 | 265 |
| Download Speed | 225 | 181 | 180 | 177 |
| Upload Speed | 75 | 64 | 55 | 63 |
| Latency | 200 | 133 | 131 | 120 |
| Voice | 45 | 36 | 36 | 0 |
| Stability | 55 | 47 | 49 | 47 |
| Total | 1000 | 762 | 753 | 672 |

Score achieved by the networks under test.



Shown scores are rounded.

KPI overview

Methodology

| Category | KPI name | Unit | Vivo | TIM | Claro |
|--------------------------|----------------------|----------|------|------|-------|
| Broadband Coverage | Coverage Quality | [%] | 81.5 | 81.7 | 75.7 |
| | Coverage Reach | [%] | 86.7 | 83.4 | 83.3 |
| | Time on broadband | [%] | 89.6 | 91.2 | 84.0 |
| Download Speed | Basic internet class | [%] | 94.1 | 94.6 | 93.7 |
| | HD video class | [%] | 83.9 | 83.8 | 79.8 |
| | UHD video class | [%] | 24.2 | 24.2 | 22.1 |
| Latency | Gaming class | [%] | 60.7 | 64.2 | 56.9 |
| | OTT voice class | [%] | 92.8 | 91.0 | 90.5 |
| Voice | HD voice | [%] | 88.4 | 88.1 | 3.7 |
| Download Speed Active | P10 data rate | [Mbit/s] | 3.9 | 3.3 | 3.5 |
| | P90 data rate | [Mbit/s] | 77.7 | 77.0 | 81.6 |
| | AVG data rate | [Mbit/s] | 40.1 | 42.7 | 41.4 |
| Upload Speed Active | P10 data rate | [Mbit/s] | 2.2 | 1.7 | 2.1 |
| | P90 data rate | [Mbit/s] | 38.5 | 33.2 | 40.4 |
| | AVG data rate | [Mbit/s] | 17.3 | 15.0 | 18.1 |
| Stability | Transaction success | [%] | 85.8 | 88.9 | 85.1 |

As the de-facto industry standard, umlaut's benchmarking methodology focuses on customer-perceived network quality and covers a wide range of mobile and fixed broadband services.

For the collection of crowd–data used for this certification report, we have integrated a background diagnosis processes into thousands of diverse Android apps. If one of these applications is installed on the end–user's phone, data collection takes place 24/7, 365 days a year. We focus on the user experience. Our data collection is compliant with the GDPR, since we do not include any personal user data. This unique crowdsourcing technology allows us to collect data about real–world experience wherever and whenever customers use their smartphones to consume data services or place phone calls.



The umlaut benchmarking framework is based on a unified measurement method for true international comparability combined with the umlaut–Score approach.

Our top priority is to fairly and transparently assess the global development of networks, push their quality and performance with our benchmarks and ultimately achieve improvements for every customer.

ŧ



umlaut – Part of Accenture umlaut communications GmbH Am Kraftversorgungsturm 3 · 52070 Aachen · Germany

Hakan Ekmen · Global Networks Lead, Comms Industry cell +49 151 571 33 235 · hakan.ekmen@accenture.com

www.umlaut.com