

Analysis & Measurement Methodology

The measurement data is derived from all sources belong to V-SPEED company (SpeedGeo's owner) listed in the "Apps" and "Websites" sections at: <https://www.v-speed.eu/>.

Statistics are published across two primary categories:

- **BROADBAND:** Includes tests performed on fixed and mobile networks (fixed wireless / mobile broadband) via routers or USB modems.
- **MOBILE:** Based on tests performed on mobile devices (smartphones and tablets) using 3G, 4G LTE, and 5G technologies.

Data Processing and Classification Rules

To ensure accuracy and transparency, we apply the following standards:

- **Operator Qualification:** To maintain statistical representativeness, an operator is included in country or city-level rankings only if they account for more than 3% of all tests in a given category and location during a specific quarter.
- **Data Integrity and Fraud Detection:** Before calculating averages, all data undergoes a detailed integrity analysis to detect and exclude fraudulent measurements. Raw results are automatically aggregated by operator, user, location, and connection technology using proprietary, continuously updated algorithms. This process averages redundant measurements from individual users to prevent any single user from disproportionately influencing the overall results.
- **ISP Identification and Ranking:** Rankings list Internet Service Providers (ISPs) and non-commercial entities alongside their average download speed, upload speed, and latency.
 - **Sorting:** Operators are ranked primarily by download speed (from highest to lowest).
 - **Identification:** Operator names are determined based on the user's public IP address using information from RIPE, direct data from operators, or other verified sources.

Traffic Neutrality Requirement

We strictly require that measurement traffic (data transmission) between the V-SPEED apps' servers and the user be subject to the same traffic-shaping rules as any other Internet service.

This means that neither Internet Service Providers nor measurement server providers may prioritize or manipulate traffic differently from standard web traffic. This ensures that the results reflect the actual quality of service experienced by the user in daily use.

Measurement methodology

The measurement methodology is consistent with the ITU-T Q.3960 recommendation, but varies depending on the system platform and related technical possibilities:

- **WEB browser (HTML5)** – measurement available in any operating system; connections HTTP protocol with TLS; the PING test uses the Secure WebSocket protocol,
- **Android or iOS app** – the measurement uses pure TCP protocol.

Terms of Usage

The terms and conditions for the commercial use of these rankings in connection with the SPEEDGEO trademark are determined individually by V-SPEED. Any commercial use of the ranking results without prior written consent from V-SPEED is strictly prohibited, with the exception of citations by news portals and the press.