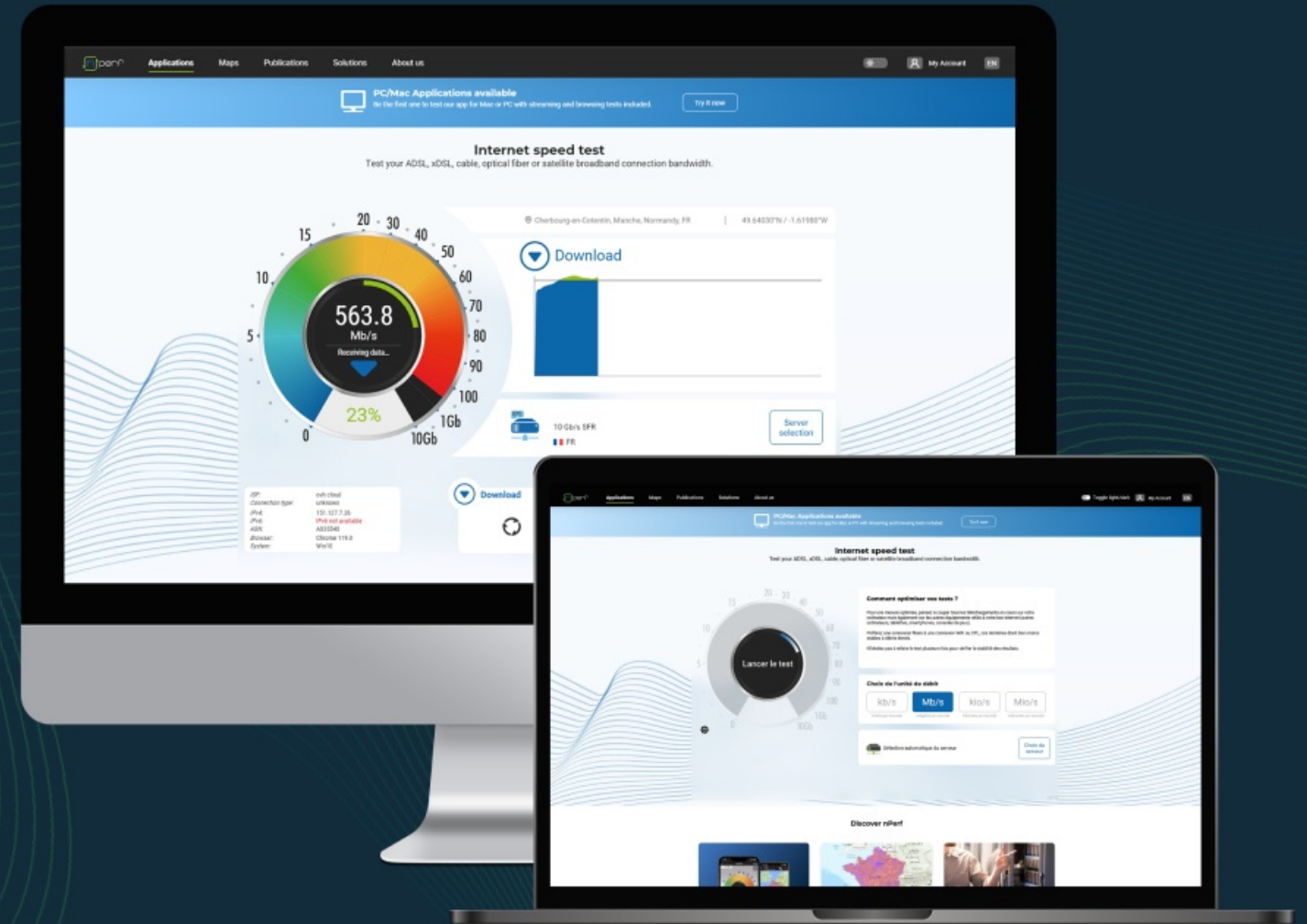


February 14, 2024



# Barometer of fixed Internet Connections in Serbia.

01/01/2023 - 31/12/2023



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**nPerf Network  
assessment**



### Expert in the telecom network optimization

nPerf is an independent French company based in Lyon (France). For over a decade, nPerf has been a trusted partner for both fixed and mobile operators, providing comprehensive network testing solutions and analysis. Our mission is to accurately measure, evaluate, and enhance the understanding of Internet connectivity around the world.



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**26Md+** coverage  
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## 2. Executive Summary



The subscribers of SBB and Orion enjoyed the best fixed Internet performances in Serbia during 2023.

### Fixed Internet connections in Serbia

	mts	Orion	SBB	Yettel
▼ Download bitrates (Mb/s)	52.85	96.72	104.08	24.09
▲ Upload bitrates (Mb/s)	22.28	60.24	24.31	13.85
◀▶ Latency (ms)	40.37	43.42	29.47	63.22

nPerf Score (nPoints)	107 584	123 647	124 817	84 524
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Source : nperf.com



Best fixed Internet performance  
in 2023



Source : nperf.com

mts

ORION

SBB

Yettel.

Source : nperf.com



In Serbia's dynamic fixed broadband market, the evaluation of Internet Service Providers (ISPs) through Key Performance Indicators (KPIs) is essential to gauge service quality. The nPerf score, which factors in download and upload bitrates, latency, is particularly telling of the online user experience.

### **SBB: setting the standard in speed and reliability**

SBB showcases its dominance with a top-tier download bitrate of 104 Mb/s, complemented by an upload bitrate of 24 Mb/s. The ISP's standout feature is its latency of 29 ms, which is the best in the market, leading to a high nPerf score of 124,817 points. This is indicative of a superior user experience, especially for streaming and online gaming where low latency is crucial.

### **Orion: the close contender**

Orion exhibits strong download and upload bitrates of 97 Mb/s and 60 Mb/s, respectively. Despite a marginally higher latency of 43 ms, the ISP still achieves an impressive nPerf score of 123,647, pointing to a robust service capable of supporting demanding online activities.

### **mts: solid and reliable**

mts offers consistent download and upload bitrates of 53 Mb/s and 22 Mb/s, respectively. With a latency of 40 ms and an nPerf score of 107,584, mts provides a reliable internet connection that caters well to standard household browsing and streaming needs.

### **Yettel: potential for growth**

Yettel's narrative could be "Yettel: Gearing Up for the Future," reflecting its current standing. It delivers download and upload bitrates of 24 Mb/s and 14 Mb/s, respectively, with a higher latency of 63 ms. The nPerf score of 84,524 suggests there is significant room for improvement to meet the growing expectations of digital consumers.

### **Conclusion**

The Serbian fixed broadband market is characterized by a competitive edge, with SBB leading the pack, closely followed by Orion. mts maintains a noteworthy position with its reliable service, while Yettel has opportunities for enhancement.

## 4. Methodology



nPerf provides a **free tool to assess Internet connection quality** via its website and mobile apps (Android, iOS). Daily, thousands of people rely on nPerf for speed tests in their country, contributing to a comprehensive crowdsourced database covering all operators.

The study employs a strong filtering method to reflect real customer experiences on a specific network (mobile or fixed line). Measures are taken to prevent probes and measurement robots from affecting the results.

For fixed connections, we assess:

### ▼ Download bitrate :

Indicates the amount of data your connection can receive in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

### ▲ Upload bitrate :

Indicates the amount of data your connection can send in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

### ◀▶ Latency (ping) :

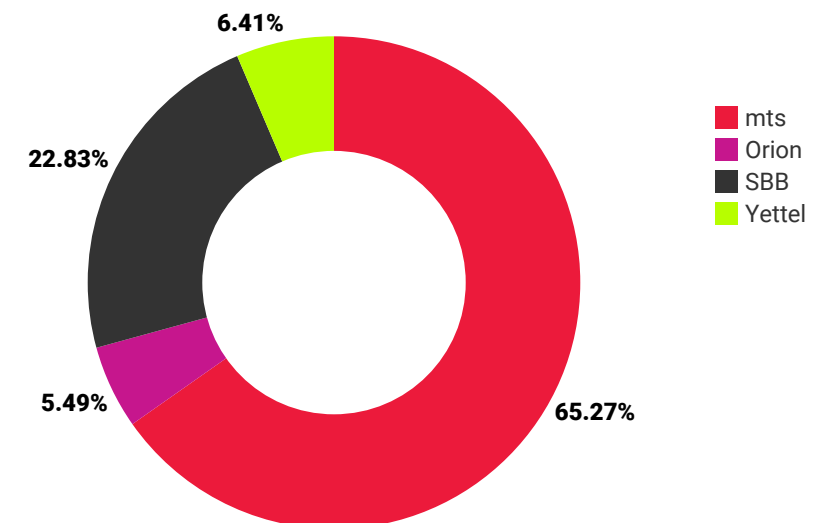
It indicated the delay a small packet of data requires to make a round-trip from your computer to the nPerf server. The shorter the delay, the most reactive your connection is. The main is the minimum value.

Statistical precision is crucial in accurately determining winners. At nPerf, we prioritize test quality, precise reporting, and transparency. Analyzing a large volume of tests in this study, we've achieved 3 % precision for absolute values and 1 point for percentage-based results, highlighting the reliability and accuracy of our data.

For a more comprehensive understanding of the user experience, our report features test results during both Busy hours (6 PM to 11 PM) and Idle hours (the rest of the day). Busy hours, marked by network strain, can impact user experience through congestion. This approach helps in understanding how network performance fluctuates throughout the day.

We only include national Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.

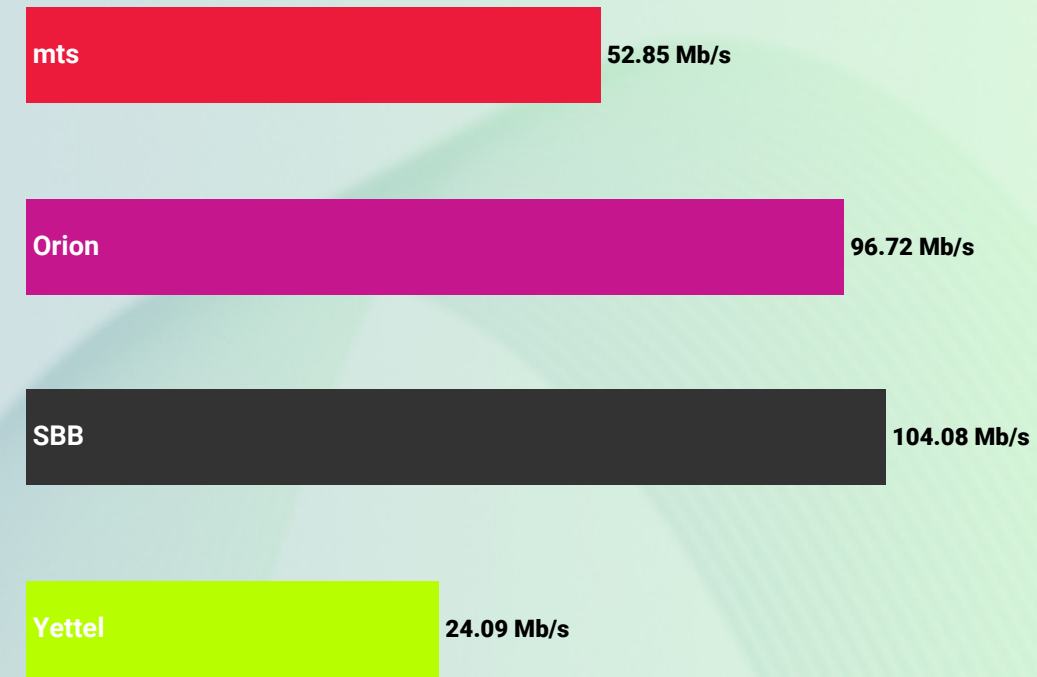
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



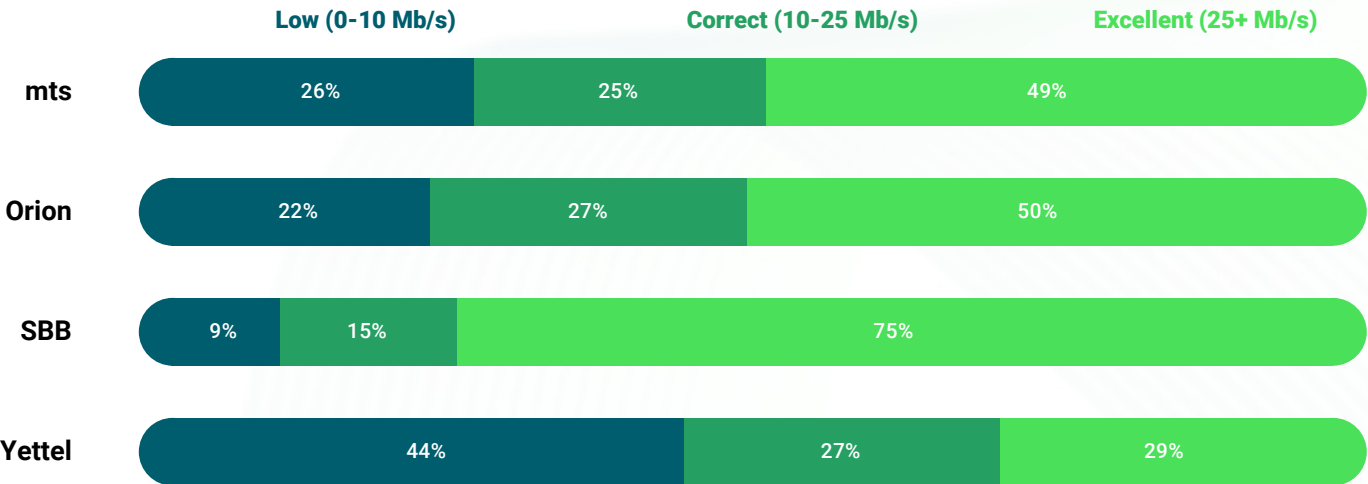
Download Speed (average)



Source : nperf.com

The subscribers of SBB enjoyed the best average broadband download speed in 2023.

Download Speed results ventilation (average )



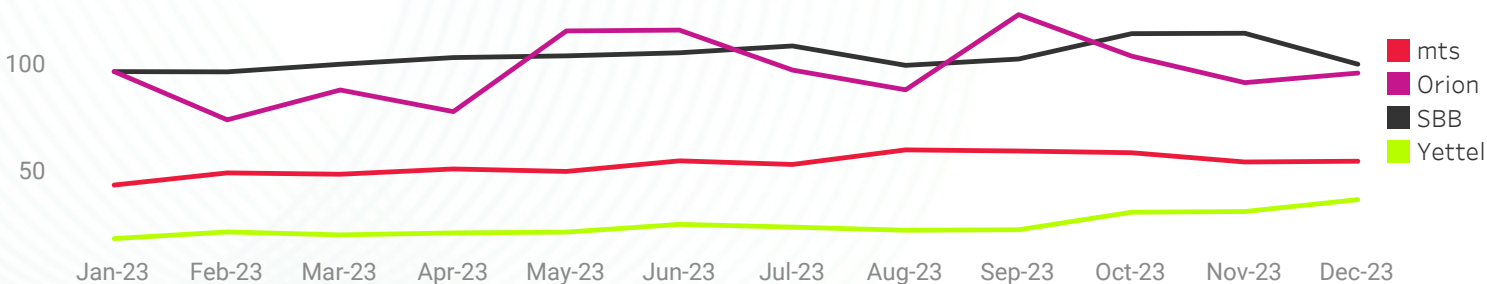
Source : nperf.com

Download Speed (average )



Source : nperf.com

Download Speed evolution over the year (average )

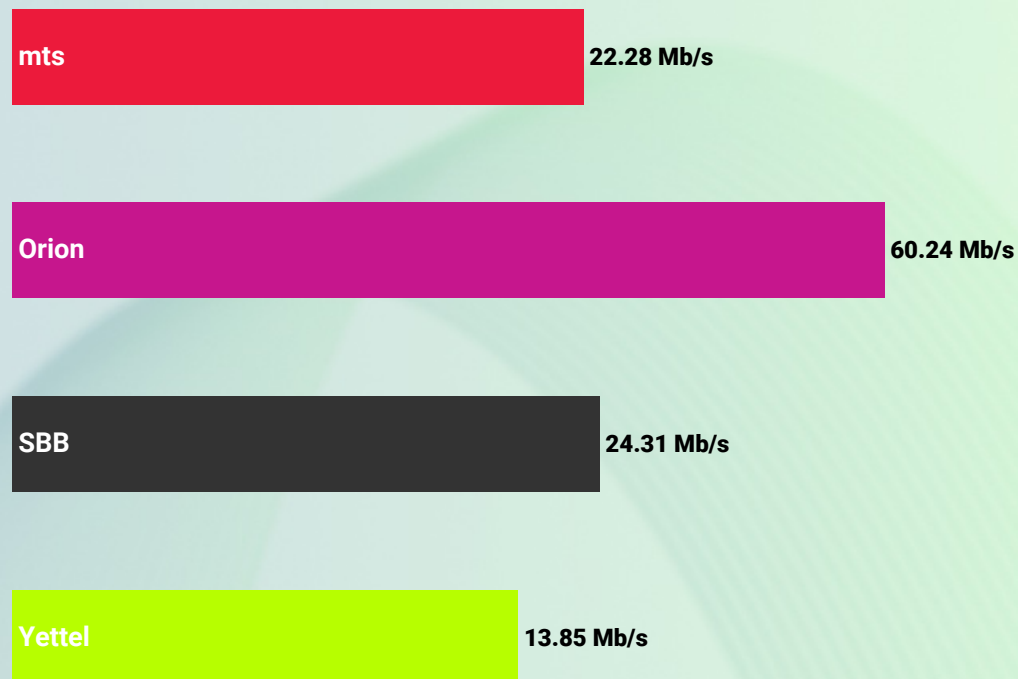


Source : nperf.com





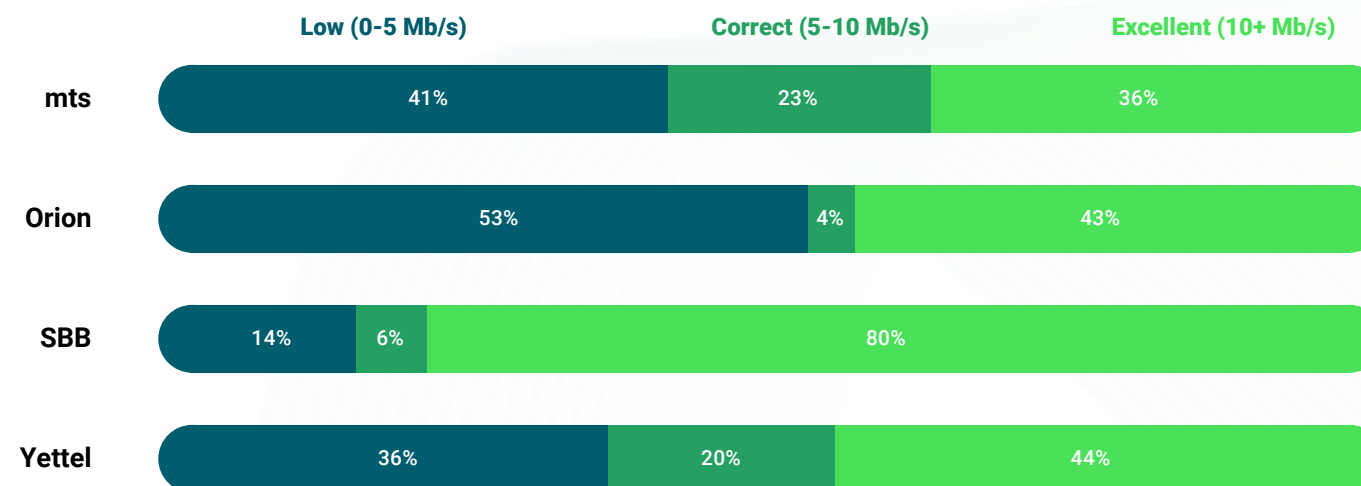
## Upload Speed (average )



Source : nperf.com

The subscribers of Orion enjoyed the best average broadband upload speed in 2023.

## Upload Speed results ventilation (average)



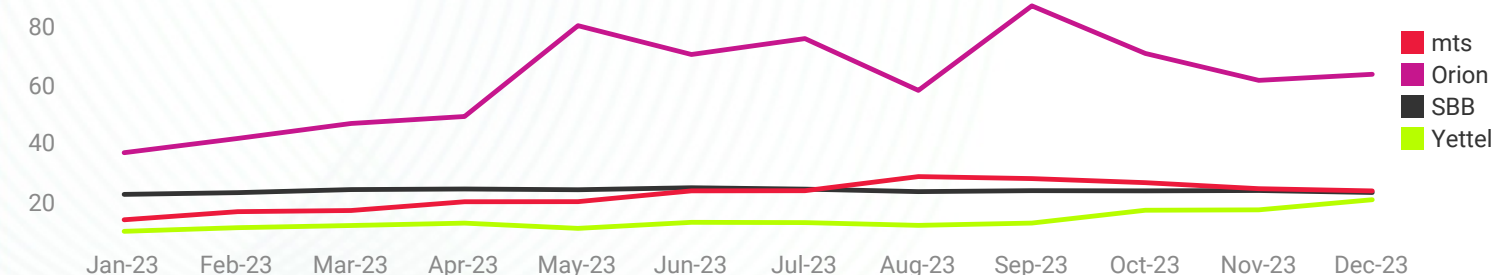
Source : nperf.com

## Upload Speed (average)



Source : nperf.com

## Upload Speed evolution over the year (average)

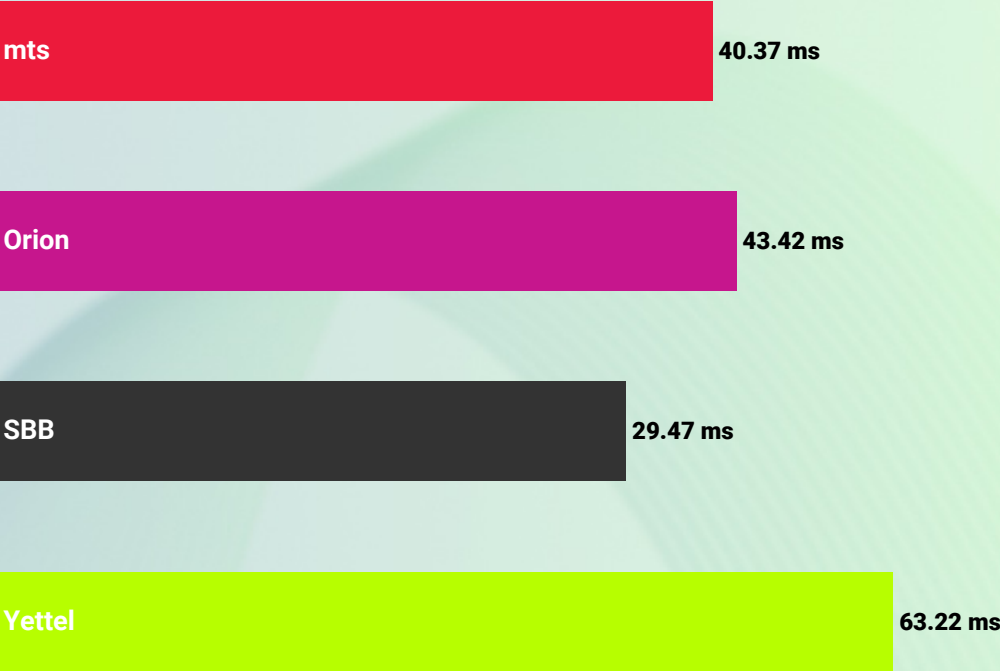


Source : nperf.com





Latency Speed (average)



Source : nperf.com

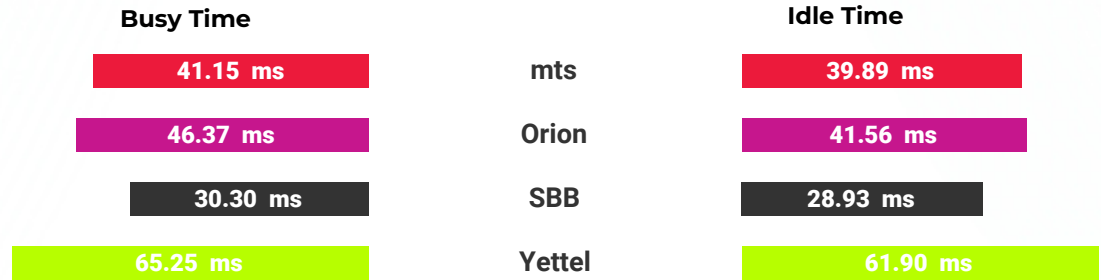
The subscribers of SBB enjoyed the best average broadband latency in 2023.

Latency Speed results ventilation (average)



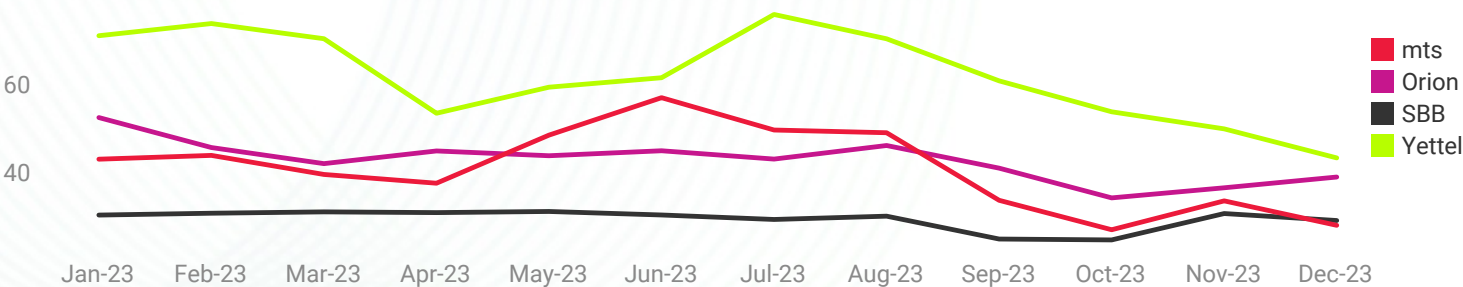
Source : nperf.com

Latency Speed (average)



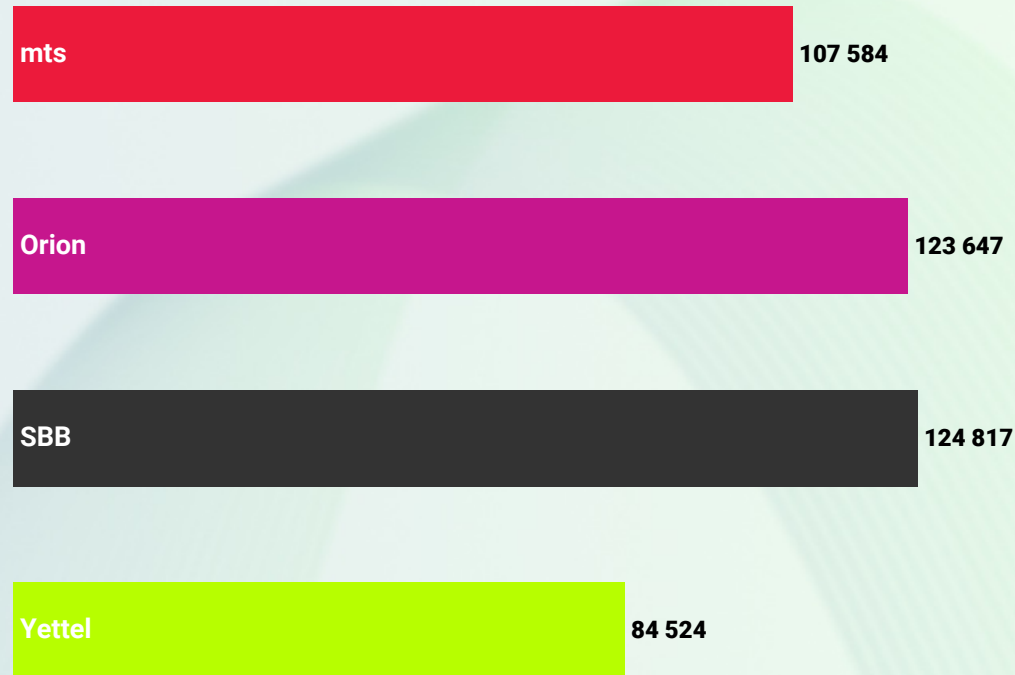
Source : nperf.com

Average latency Speed evolution over the year



Source : nperf.com

## nPerf Score (nPoints)



Source : nperf.com

The subscribers of SBB and Orion enjoyed the best fixed Internet performances in Serbia during 2023.

The nperf score takes into account the measured bitrates and the latency. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection experienced by the user.

Source : nperf.com



mts



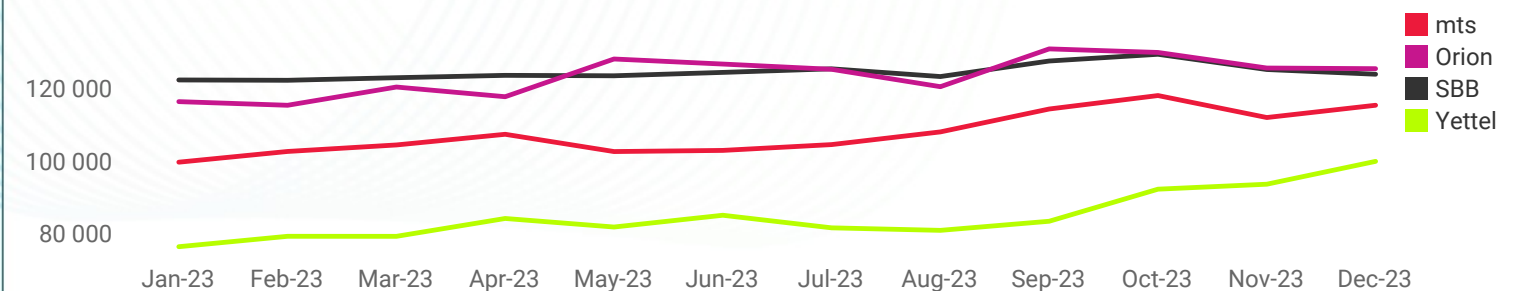
Yettel.

Best fixed Internet performance in 2023



Source : nperf.com

## nPerf score evolution over the year (average)



Source : nperf.com

