

February 16, 2024



Barometer of mobile Internet connections in Poland.

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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worldwide.



26Md+ coverage
scans in total.



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2. Executive Summary



The subscribers of Orange enjoyed the best mobile Internet performances in Poland during 2023.

Cellular Internet connections in Poland

	Orange	Play	Plus	T-Mobile
▼ Download bitrates (Mb/s)	44.60	40.12	8.26	45.11
▲ Upload bitrates (Mb/s)	12.06	11.84	2.19	11.45
◀▶ Latency (ms)	35.82	36.67	60.71	39.59
🌐 Web browsing (%)	68.68	64.64	59.49	67.38
📺 Youtube streaming (%)	82.06	78.66	72.66	80.35
📶 nPerf Score (nPoints)	77 085	71 672	36 041	74 037

Source : nperf.com



Best mobile Internet performance
in 2023









Source : nperf.com



Source : nperf.com

The subscribers of Play and Orange enjoyed the best 5G mobile connections in Poland during 2023.

5G mobile connections in Poland

	Orange	Play	Plus	T-Mobile
 Download bitrates (Mb/s)	64.63	74.40	24.80	61.50
 Upload bitrates (Mb/s)	24.22	25.17	5.45	21.96
 Latency (ms)	29.79	31.10	36.42	35.53
 Web browsing (%)	78.29	78.20	71.40	74.51
 Youtube streaming (%)	83.59	86.25	77.76	82.42
 nPerf Score (nPoints)	94 762	97 657	64 583	88 022

Source : nperf.com

In this analysis, we delve into the performance of mobile Internet Service Providers in Poland, focusing on key performance indicators such as download and upload bitrates, latency, web browsing scores, and YouTube streaming quality. The nPerf scores, an aggregate measure of network performance, provide an overarching insight into each ISP's service quality, emphasizing user experience in browsing and streaming.

Orange: confirms its leadership

Orange stands out with impressive performance across the board. With a download bitrate of 45 Mb/s and an upload bitrate of 12 Mb/s, it ensures a robust and responsive online experience for users. A latency of 36 ms supports smooth real-time interactions, while web browsing and YouTube streaming scores of 69% and 82%, respectively, showcase its reliability in delivering content. The nPerf score of 77,085 points solidifies Orange's position at the top, reflecting a superior user experience in browsing and streaming activities.

Play: the 5G champion

Play demonstrates commendable performance and share the top spot on 5G segment with Orange. With a download bitrate of 40 Mb/s and an upload bitrate of 12 Mb/s, Play's performance are closely trailing the leader. The ISP maintains a competitive edge with a latency of 37 ms, ensuring minimal delay in data transmission. Web browsing and YouTube streaming scores stand at 65% and 79%, respectively, indicating a reliable service. Play is especially strong on the 5G segment, offering the best consumer experience (browsing and streaming). The nPerf score of 71,672 points positions Play as a strong contender in the market.

T-Mobile: close competition

T-Mobile showcases a competitive performance with a download bitrate of 45 Mb/s, on par with Orange, and an upload bitrate of 11 Mb/s. A slightly higher latency of 40 ms, compared to Orange, might affect some time-sensitive applications. Web browsing and YouTube streaming scores are commendable at 67% and 80%, respectively. With an nPerf score of 74,037 points, T-Mobile stands as a close competitor, offering a high-quality user experience.

Plus: room for improvement

Plus faces significant challenges, with the lowest download and upload bitrates at 8 Mb/s and 2 Mb/s, respectively. The latency of 61 ms is the highest among the ISPs, potentially affecting real-time online interactions. Web browsing and YouTube streaming scores are also the lowest at 59% and 73%, respectively, pointing towards a need for substantial improvements. The nPerf score of 36,041 points reflects its struggle to keep up with competitors.

Conclusion

The analysis of Poland's mobile market reveals Orange as the frontrunner, excelling in both browsing and streaming experiences. Play and T-Mobile offer competitive services, with Plus lagging and in need of improvement.

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 mobile 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.

Browsing performance :

The browsing test assesses the load time of the fully loaded pages, including images, JavaScript, CSS, and fonts, for the five most popular sites. This indicator reflects the user's perceived quality of the Internet network.

Streaming performance :

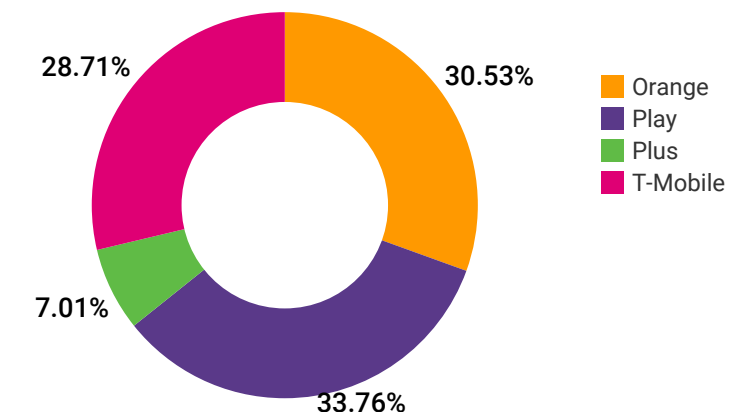
The video streaming test gauges the load time of a fully loaded video in three resolutions on YouTube, considering stalls during playback. This indicator reflects the user's perceived quality of the Internet network.

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



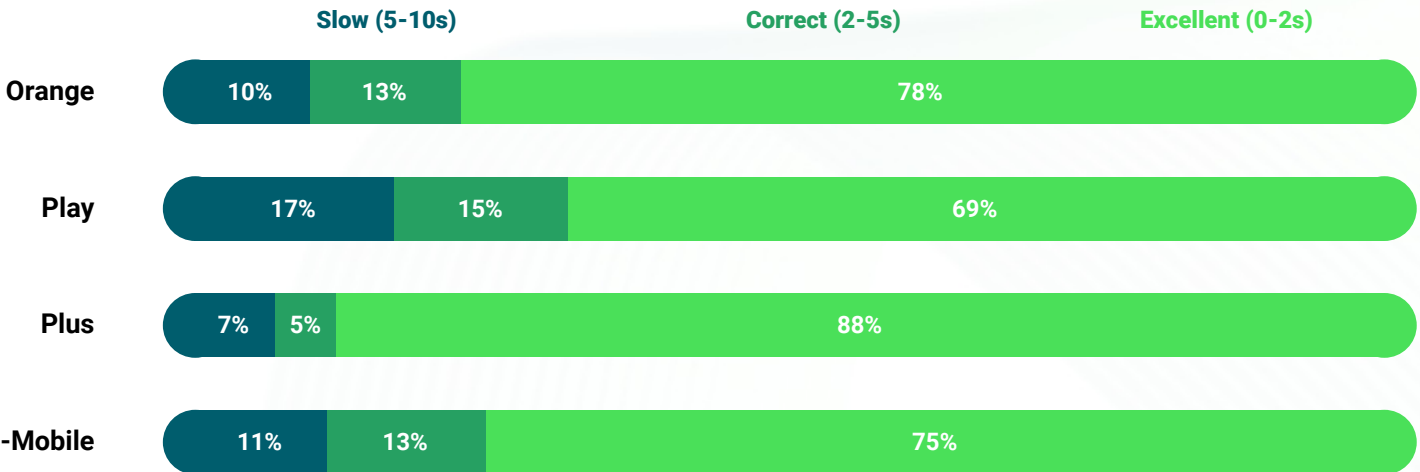
Browsing Performance rate (average)



Source : nperf.com

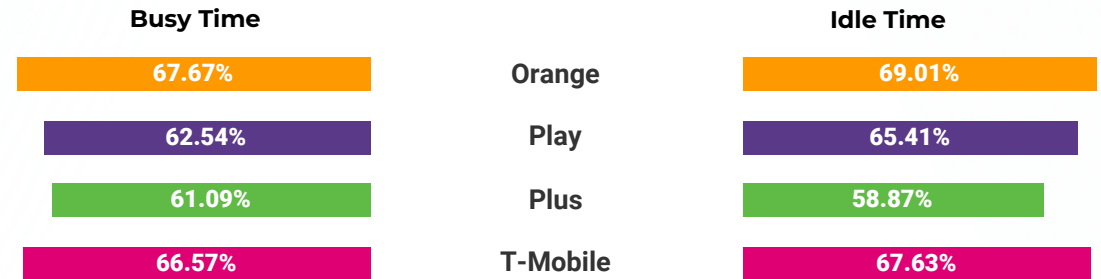
The subscribers of Orange enjoyed the best mobile Internet browsing performance in 2023.

Browsing Performance results ventilation (average)



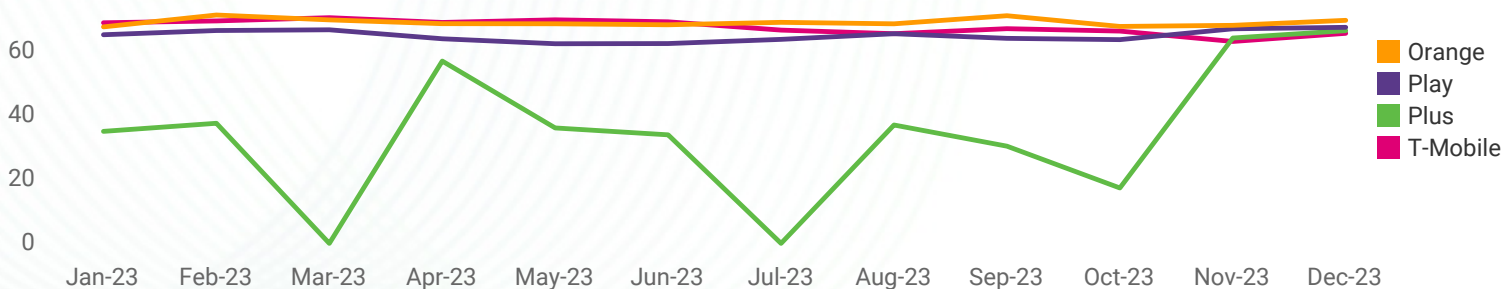
Source : nperf.com

Browsing Performance rate (average)



Source : nperf.com

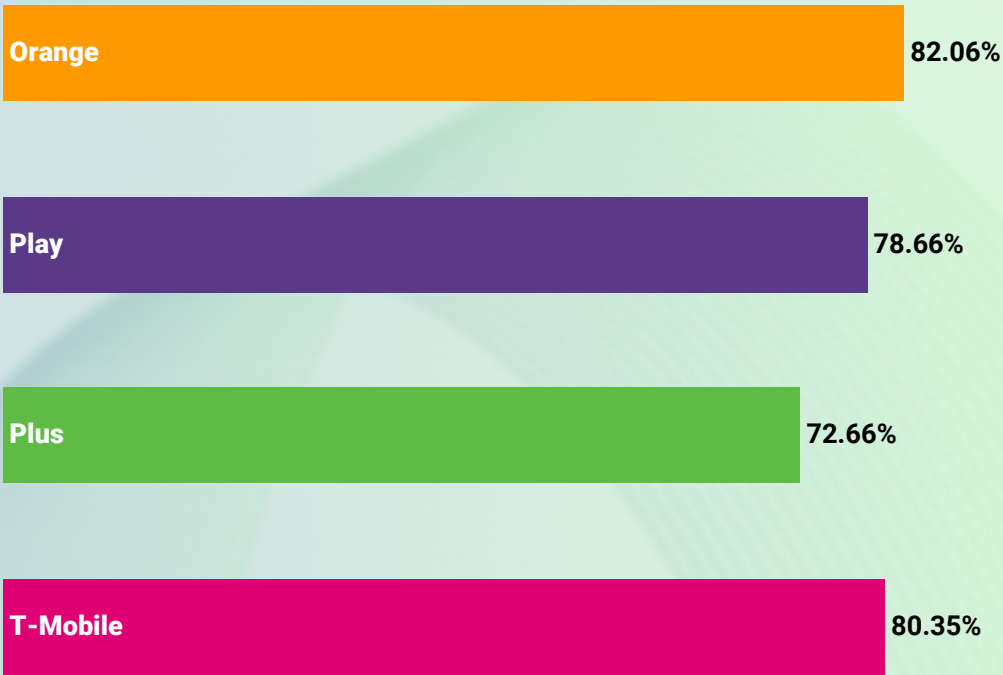
Browsing performance rate (average) evolution over the year



Source : nperf.com



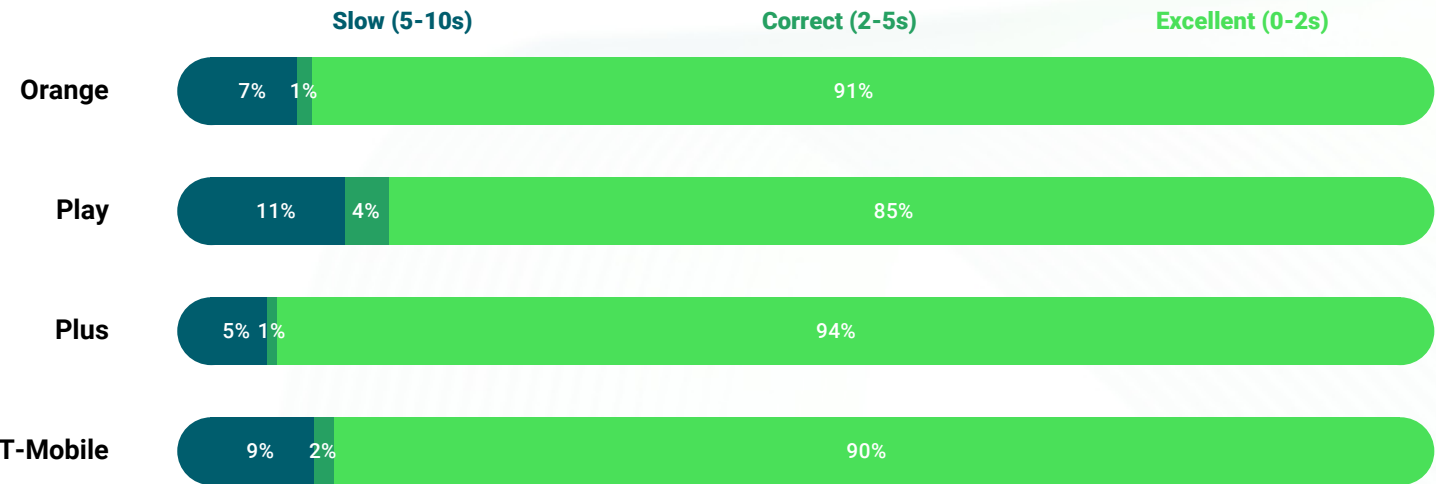
Streaming Performance rate (average)



Source : nperf.com

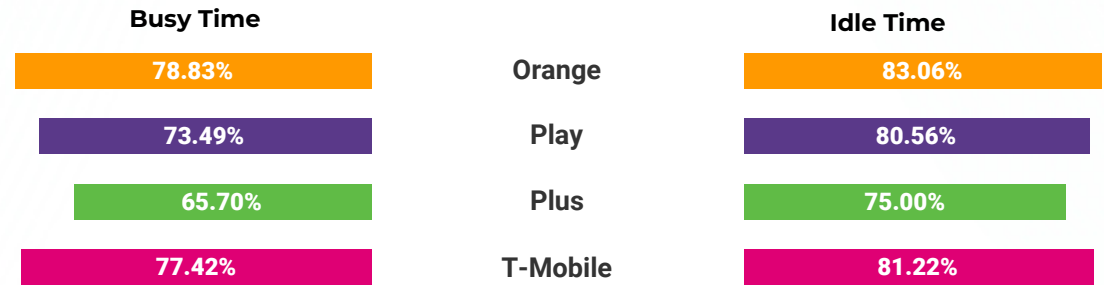
The subscribers of Orange enjoyed the best mobile Internet streaming performance in 2023.

Streaming Performance results ventilation (average)



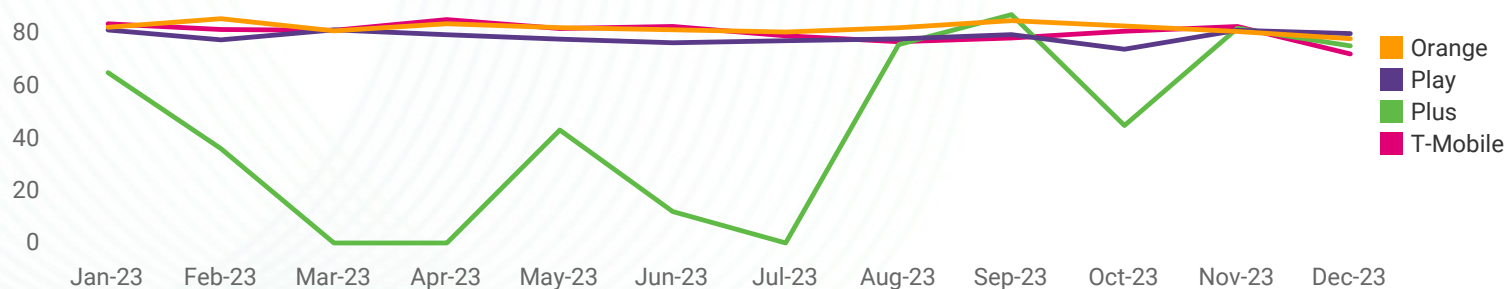
Source : nperf.com

Streaming Performance rate (average)



Source : nperf.com

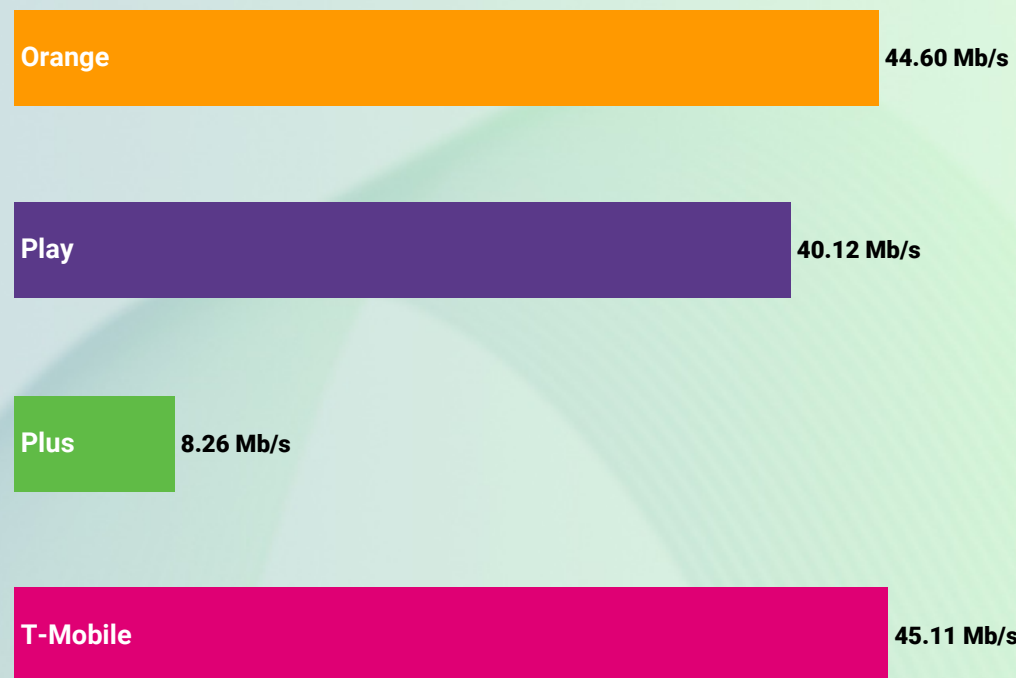
Streaming performance rate (average) evolution over the year



Source : nperf.com



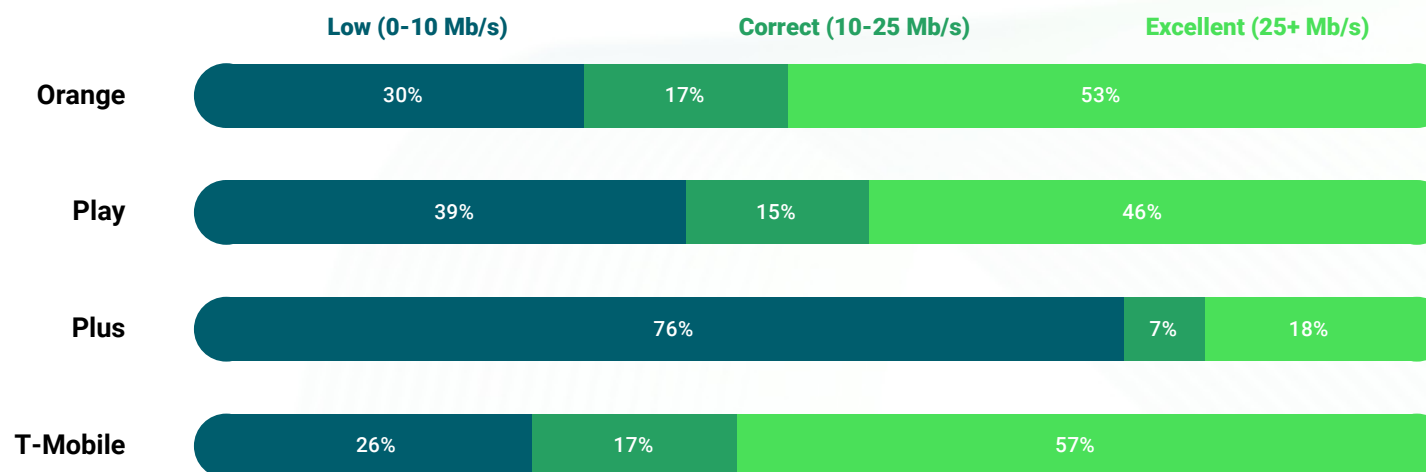
Download Speed (average)



Source : nperf.com

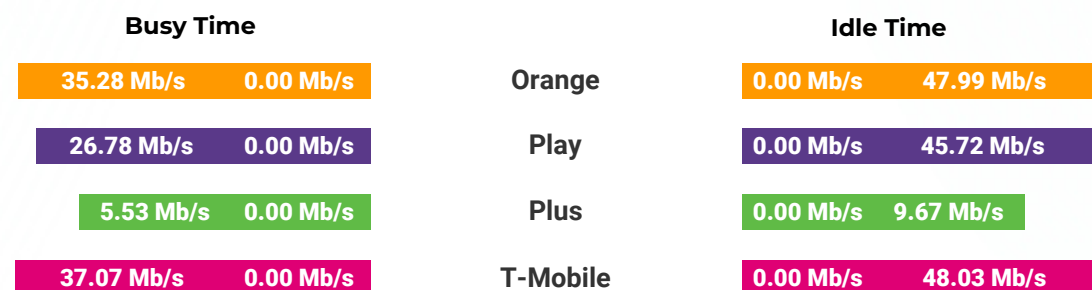
The subscribers of T-Mobile and Orange enjoyed the best average mobile Internet download speed in 2023.

Download Speed results ventilation (average)



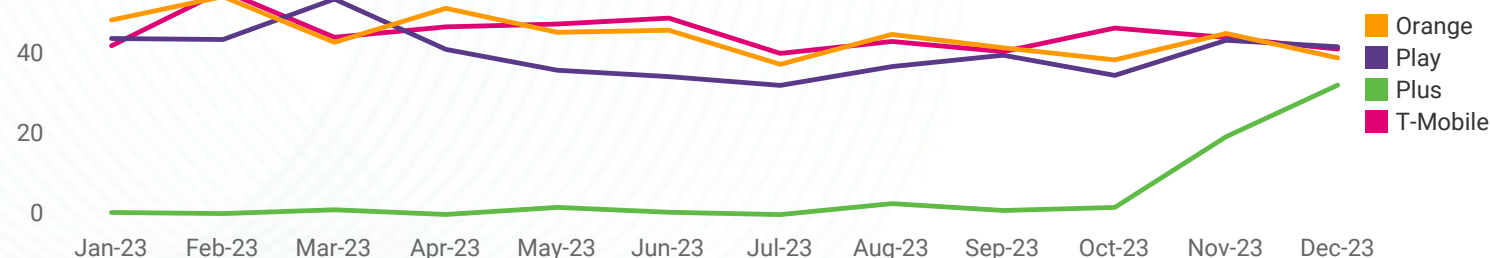
Source : nperf.com

Download Speed (average)



Source : nperf.com

Download Speed evolution over the year (average)



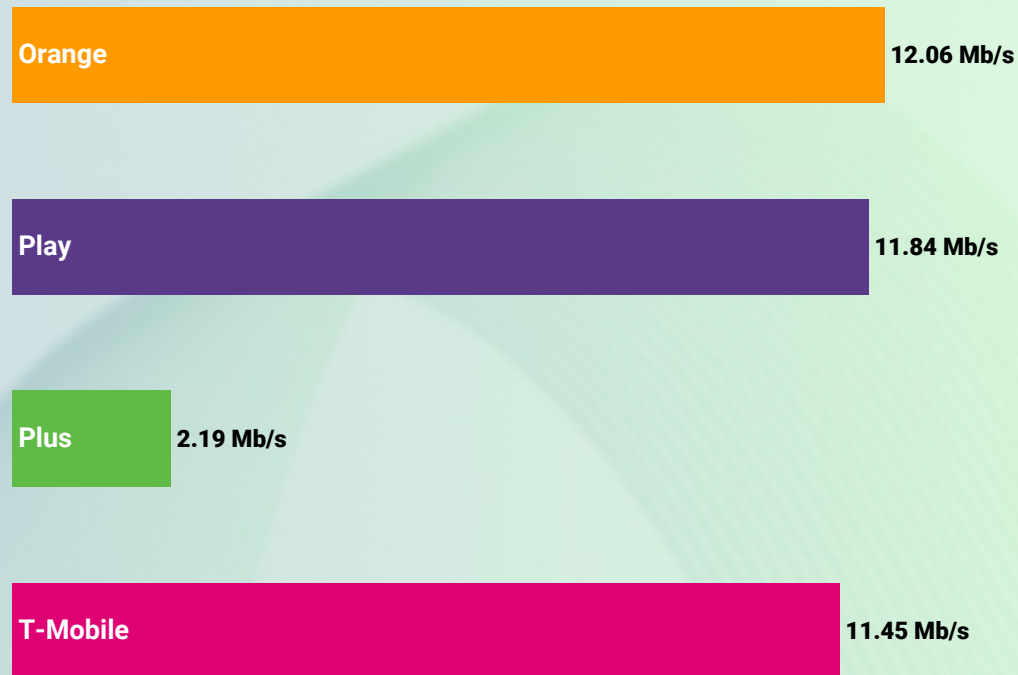
Source : nperf.com



Speed : Upload



Upload Speed (average)



Source : nperf.com

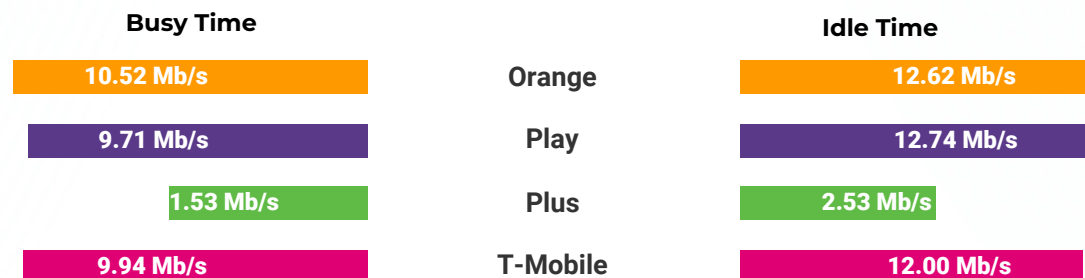
The subscribers of Orange and Play enjoyed the best average mobile Internet upload speed in 2023.

Upload Speed results ventilation (average)



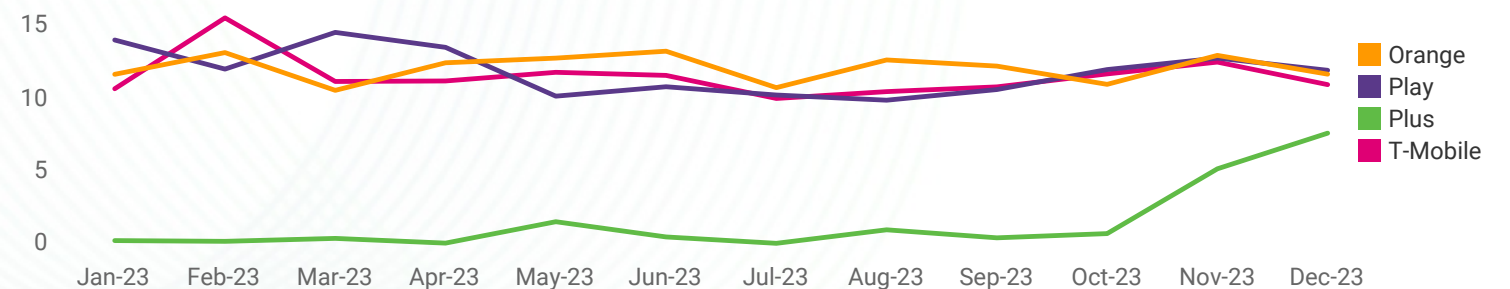
Source : nperf.com

Upload Speed (average)



Source : nperf.com

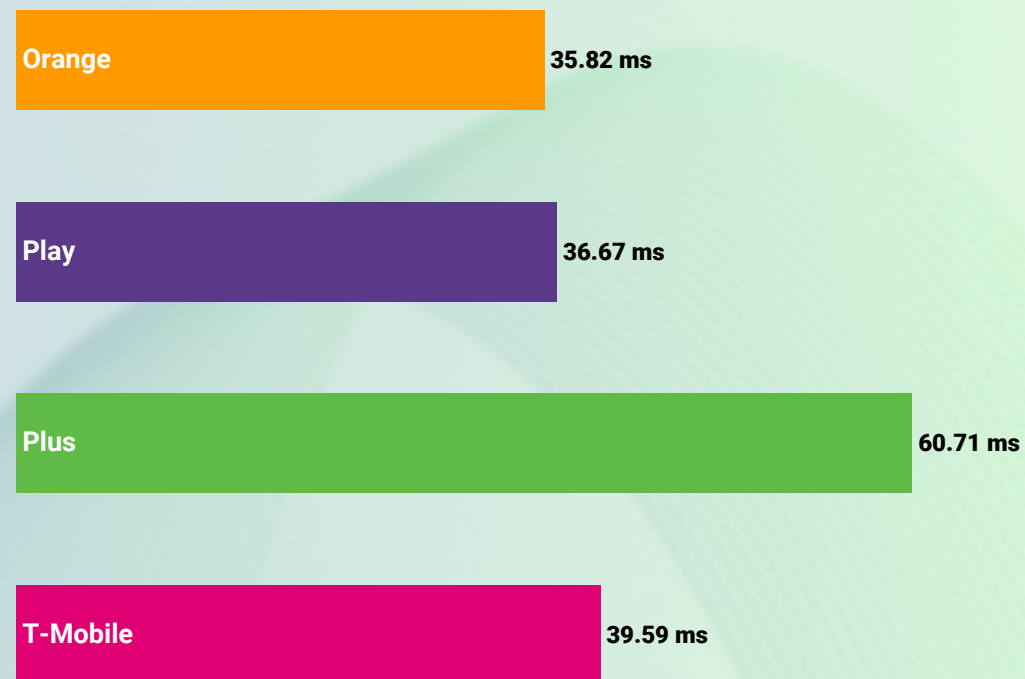
Upload Speed evolution over the year (average)



Source : nperf.com



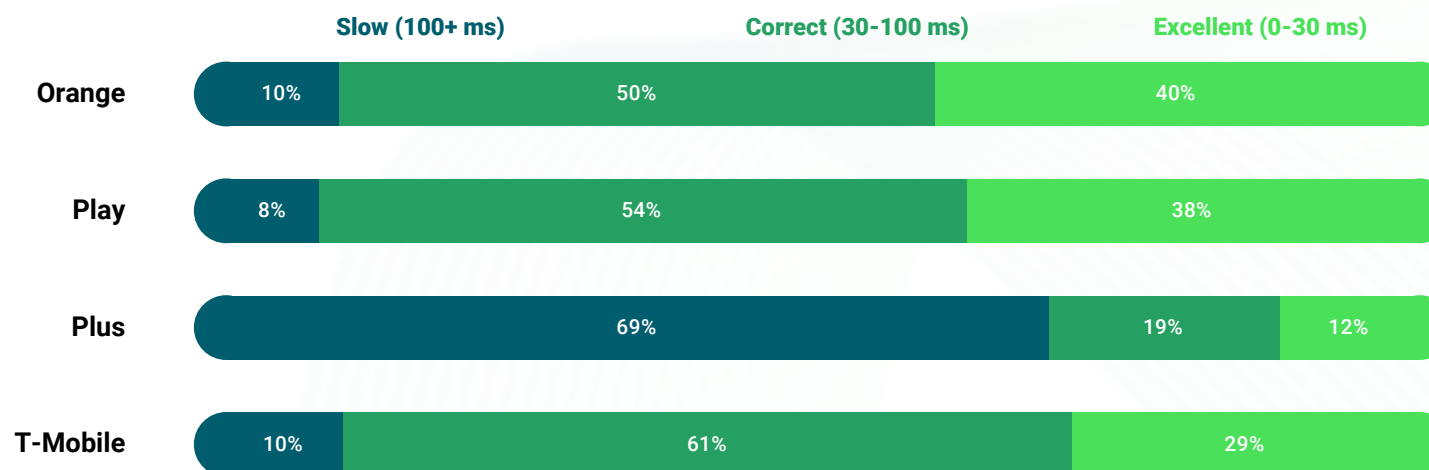
Latency Speed (average)



Source : nperf.com

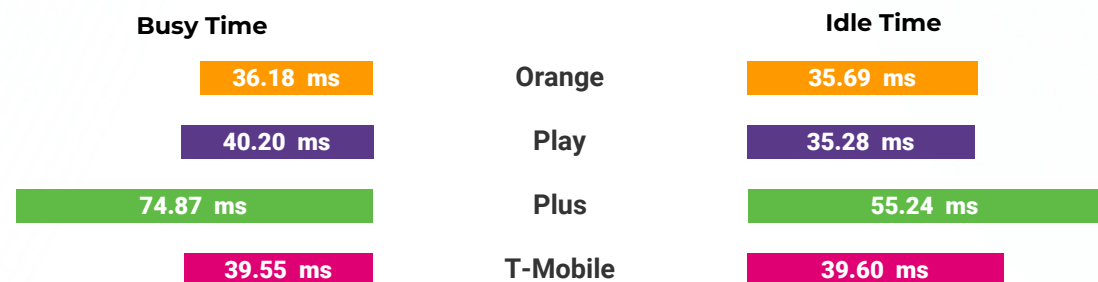
The subscribers of Orange and Play enjoyed the best average mobile Internet latency speed in 2023.

Latency Speed results ventilation (average)



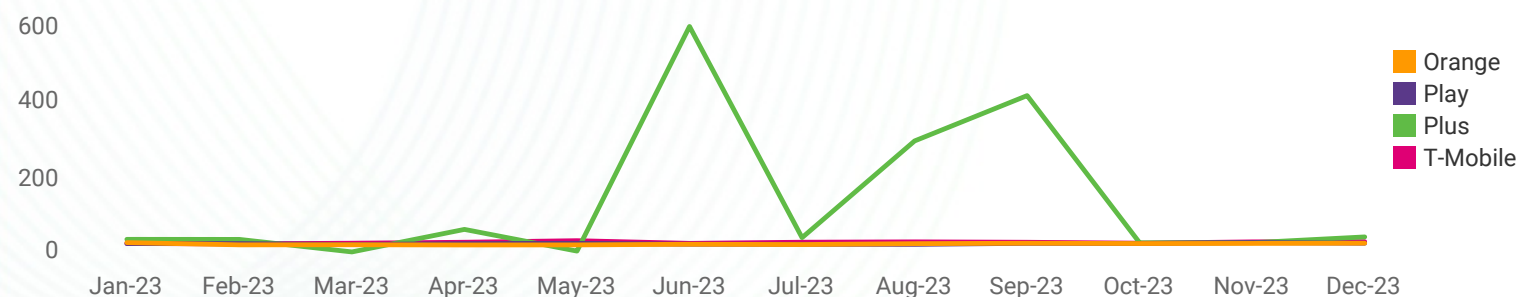
Source : nperf.com

Latency Speed (average)



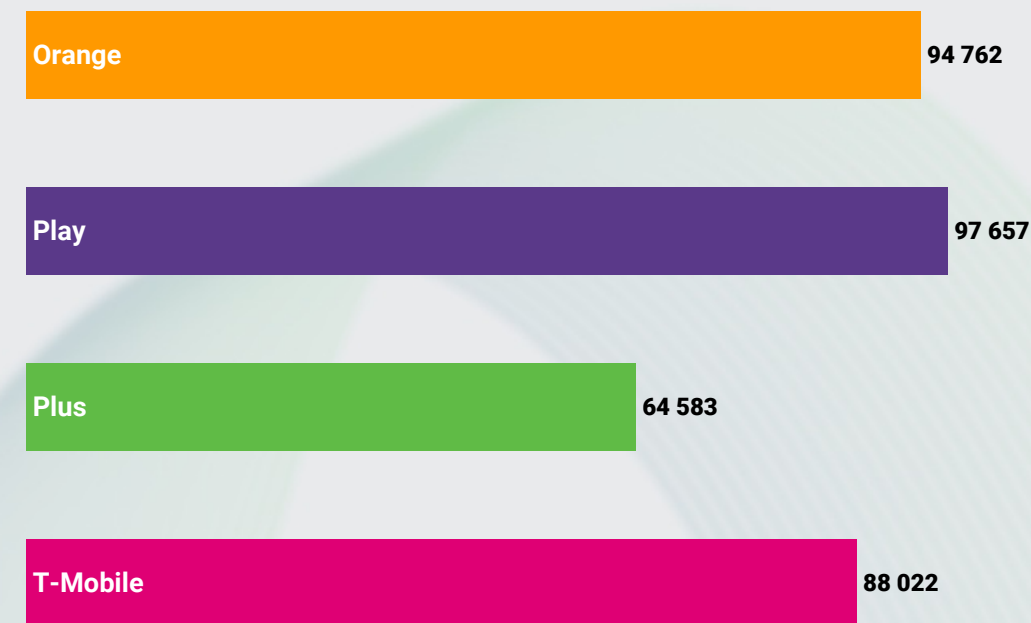
Source : nperf.com

Latency Speed evolution over the year (average)



Source : nperf.com

5G nPerf score (average)



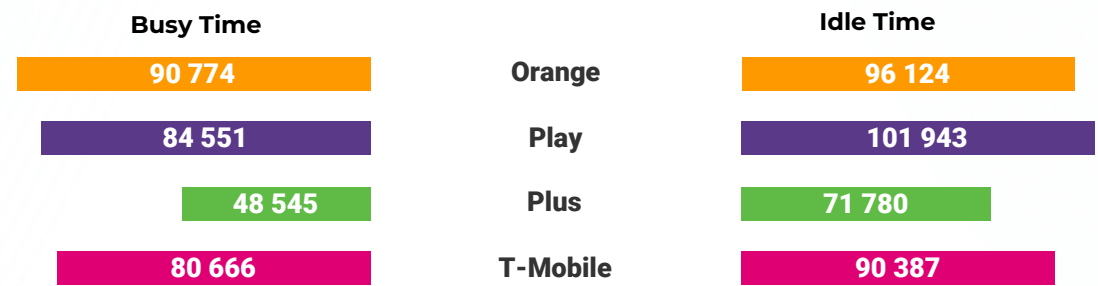
Source : nperf.com

The subscribers of Play and Orange enjoyed the best 5G mobile connections in Poland during 2023.

- Best 5G Mobile Performance : Play (97 657 nPoints) and Orange (94 762 nPoints)
- Best 5G Mobile Download speed : Play (74.40 Mb/s)
- Best 5G Mobile Upload speed : Play (25.17 Mb/s)
- Best 5G Mobile Latency speed : Orange (29.79 ms)
- Best 5G Mobile Browsing experience : Orange (78.29 %) and Play (78.20 %)
- Best 5G Mobile Video experience : Play (86.25 %)

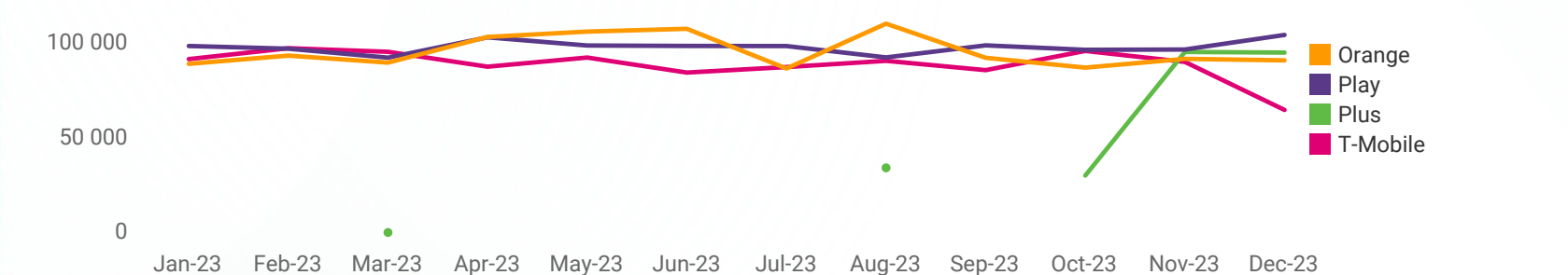
Source : nperf.com

5G nPerf score (average)



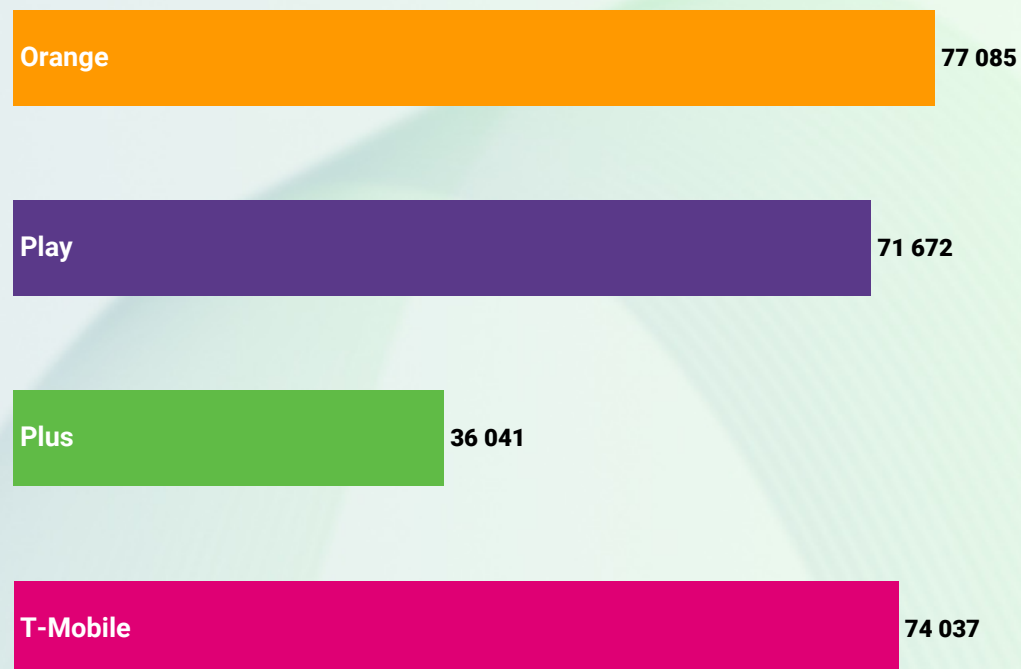
Source : nperf.com

nPerf score evolution over the year (average)



Source : nperf.com

nPerf Score (nPoints)



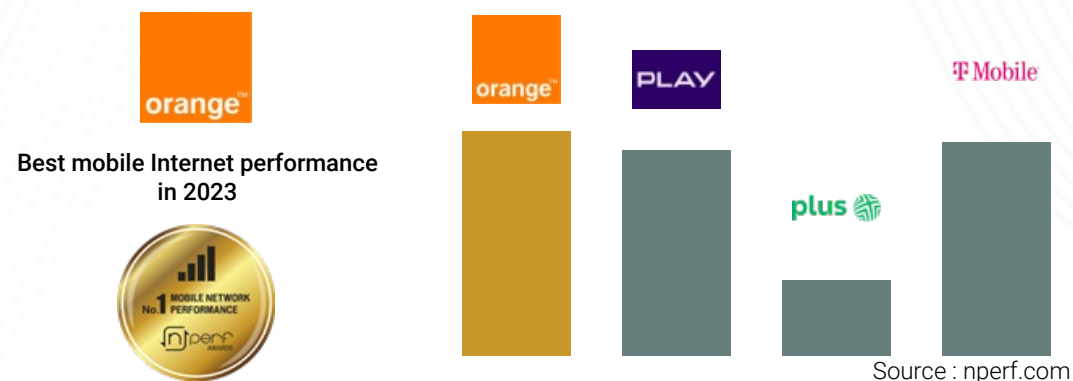
Source : nperf.com

The subscribers of Orange enjoyed the best mobile Internet performances in Poland during 2023.

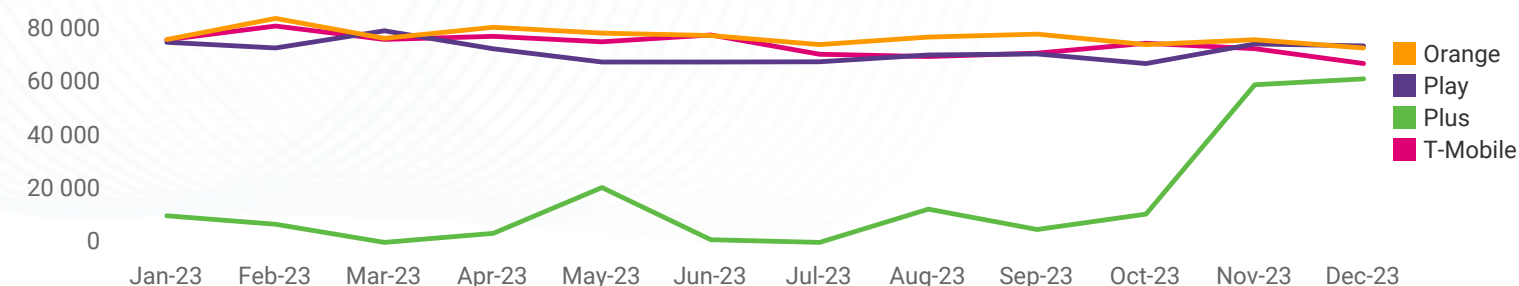
The nperf score takes into account the measured bitrates, the latency and the Qoe tests. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

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

Source : nperf.com



nPerf score evolution over the year (average)



Source : nperf.com

