



Barometer of mobile Internet connections in Belgium.

01/01/2023 - 31/12/2023



1

**Introducing
nPerf**

2

**Executive
summary**

3

Analysis

4

Methodology

5

**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.



300k+ tests daily
worldwide.



26Md+ coverage
scans in total.



3k+ servers all
around the world.

Test your Internet connection with nPerf!

nPerf allows you to test the quality of your fixed, mobile, or Wi-Fi Internet connections up to 10 Gb/s!
Download our app or visit our website!









2. Executive Summary



The subscribers of Proximus/Scarlet and Orange enjoyed the best mobile Internet performances in Belgium during 2023.

Cellular Internet connections in Belgium

	Orange	Proximus/Scarlet	Telenet	VOO
 Download bitrates (Mb/s)	70.61	84.36	64.68	40.27
 Upload bitrates (Mb/s)	15.84	16.66	14.07	11.08
 Latency (ms)	30.84	28.23	36.74	38.95
 Web browsing (%)	74.21	70.04	74.37	69.54
 Youtube streaming (%)	84.95	85.96	86.07	82.71
 nPerf Score (nPoints)	91 100	93 120	87 328	74 966

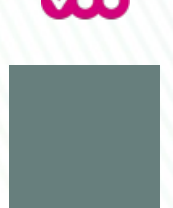
Source : nperf.com



Best mobile Internet performance
in 2023









Source : nperf.com



Source : nperf.com

The subscribers of Orange enjoyed the best 5G mobile connections in Belgium during 2023.

5G mobile connections in Belgium

	Orange	Proximus/Scarlet	Telenet
 Download bitrates (Mb/s)	296.26	225.32	153.06
 Upload bitrates (Mb/s)	42.64	34.53	28.97
 Latency (ms)	24.13	25.33	31.78
 Web browsing (%)	80.85	78.81	79.19
 Youtube streaming (%)	89.77	89.13	87.13
 nPerf Score (nPoints)	127 589	119 797	108 782

Source : nperf.com

Proximus/Scarlet and Orange :

A Battle at the Top Proximus/Scarlet and Orange share the podium with remarkable performances. Proximus/Scarlet boasts an nPerf score of 93,120, supported by download speeds of 84 Mbps and upload speeds of 17 Mbps. Their latency of 28 ms and a video streaming performance of 86% demonstrate their excellence. Meanwhile, Orange, with a score of 91,100, is not far behind with download speeds of 71 Mbps and upload speeds of 16 Mbps, latency of 31 ms, and video streaming performance almost equivalent to that of Proximus/Scarlet.

Telenet :

A Major Player Telenet, with an nPerf score of 87,328, plays a significant role in the Belgian market. They offer download speeds of 65 Mbps and excel in video streaming with a score of 86%, although their latency is slightly higher.

VOO :

Seeking Improvement VOO, despite a lower nPerf score of 74,966, remains competitive with download speeds of 40 Mbps and upload speeds of 11 Mbps. They show good video streaming performance at 83%, but their latency and speeds require improvement to compete with the leaders.

The Rise of 5G

5G marks a decisive turning point, with Orange taking a slight lead thanks to download speeds of 296 Mbps and upload speeds of 43 Mbps, resulting in an nPerf score of 127,589. Proximus/Scarlet closely follows with a score of 119,797 and download speeds of 225 Mbps. Telenet and VOO also show notable progress in 5G.

Conclusion

The telecommunications market in Belgium is characterized by fierce competition between Proximus/Scarlet and Orange, both leaders in their respective domains. 5G brings a new dimension to this rivalry, promising exciting advances and innovations for Belgian users.

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 :

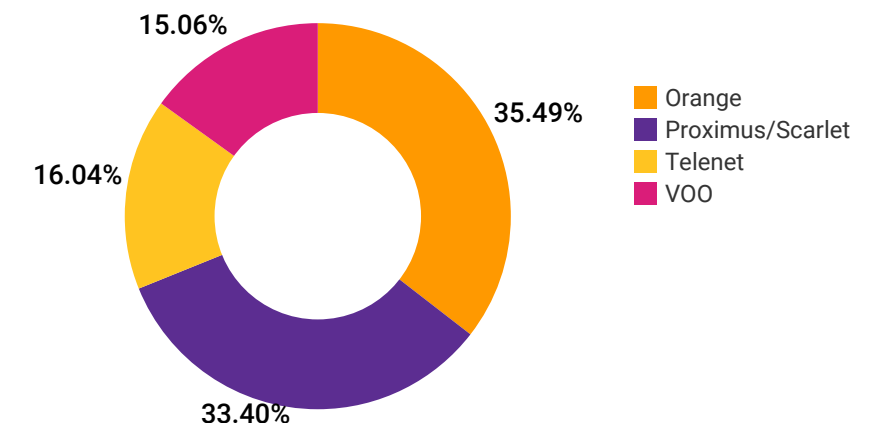
The video streaming test gauges the load time of a fully loaded video in three resolutions on YouTube, considering stalls during playback. This indicator reflects the user's perceived quality of the Internet network.

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.

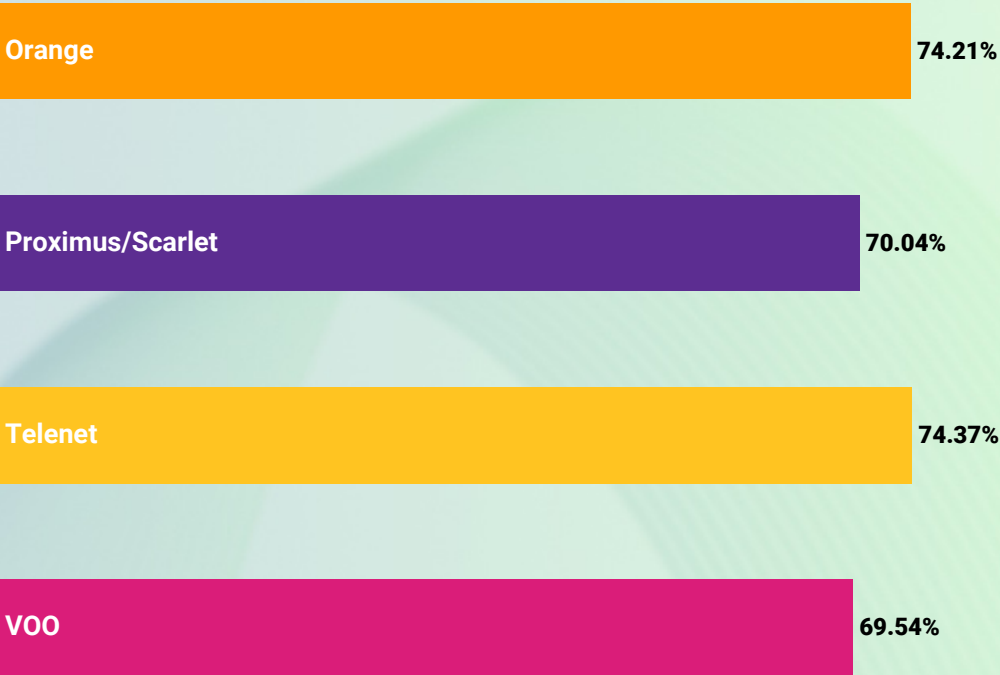
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



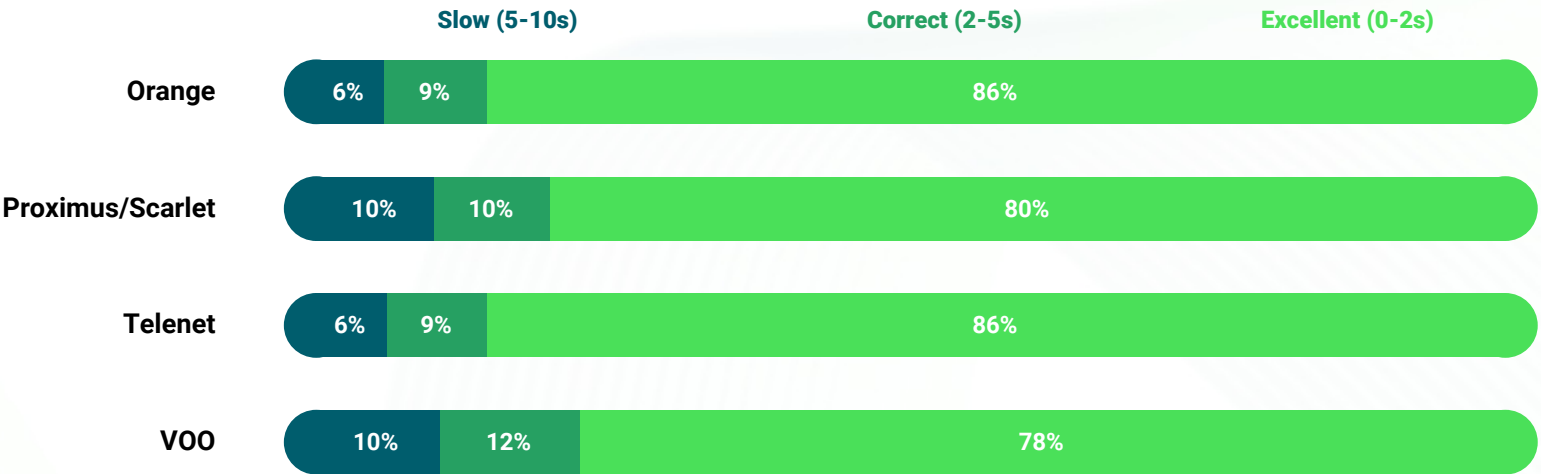
Browsing Performance rate (average)



Source : nperf.com

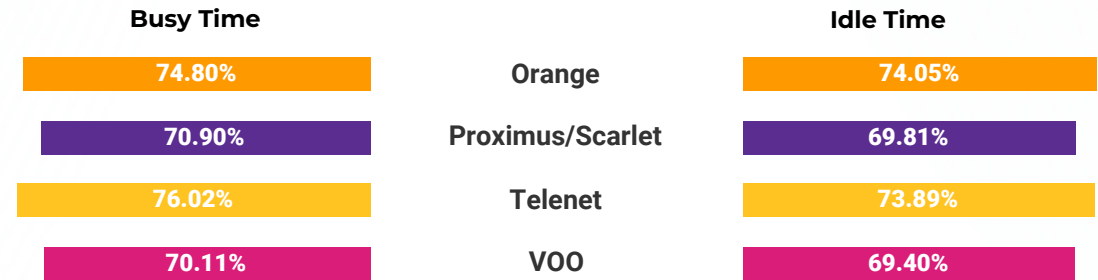
The subscribers of Telenet and Orange enjoyed the best mobile Internet browsing performance in 2023.

Browsing Performance results ventilation (average)



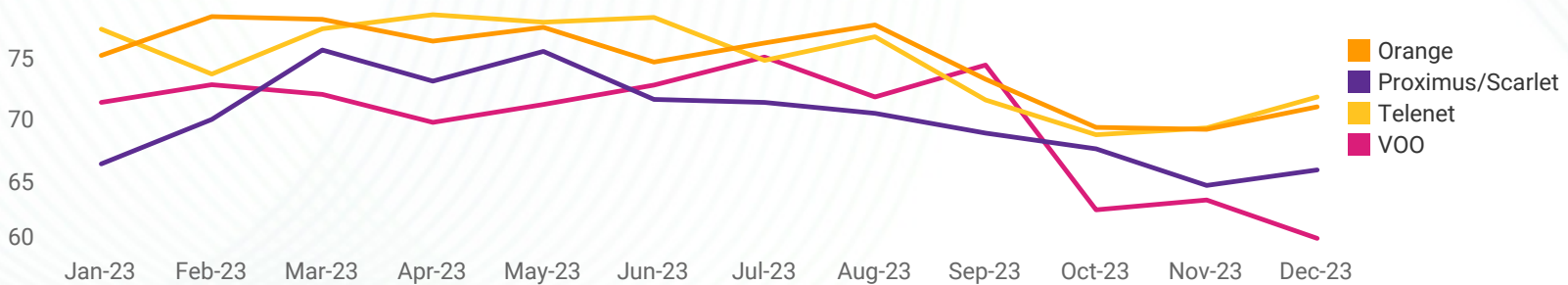
Source : nperf.com

Browsing Performance rate (average)



Source : nperf.com

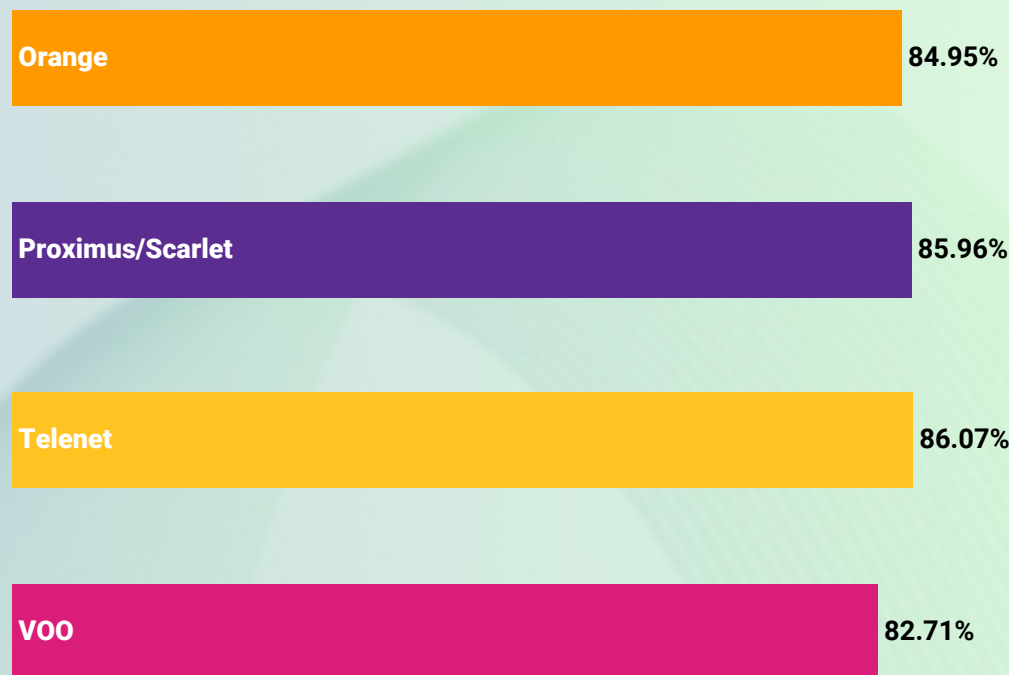
Browsing performance rate (average) evolution over the year



Source : nperf.com



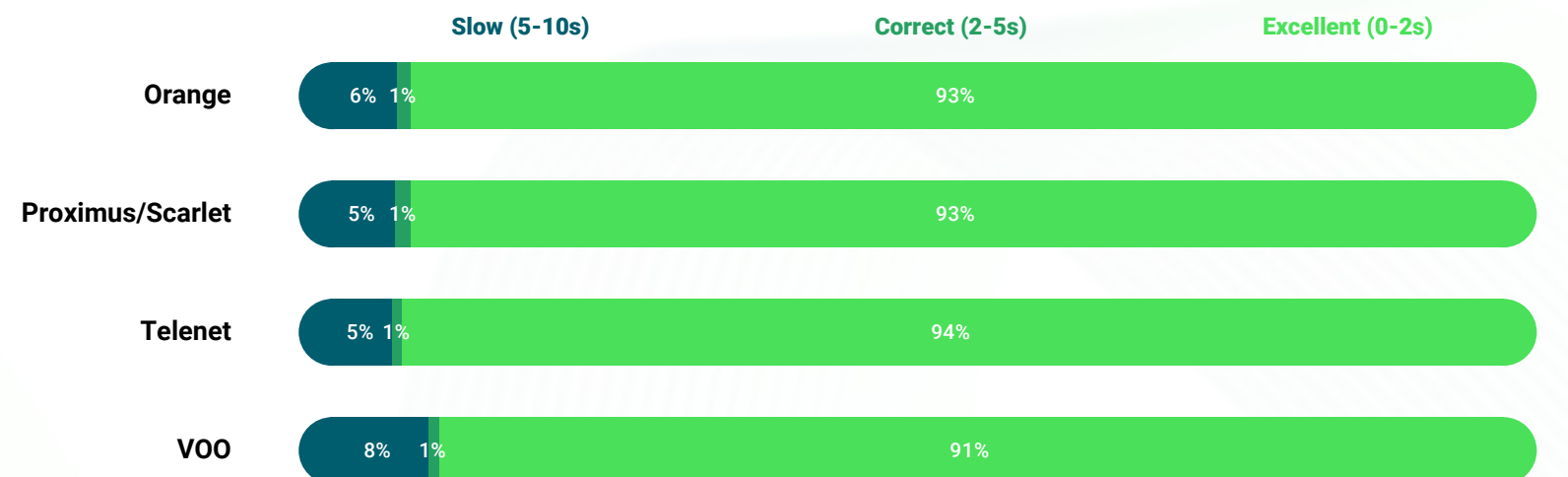
Streaming Performance rate (average)



Source : nperf.com

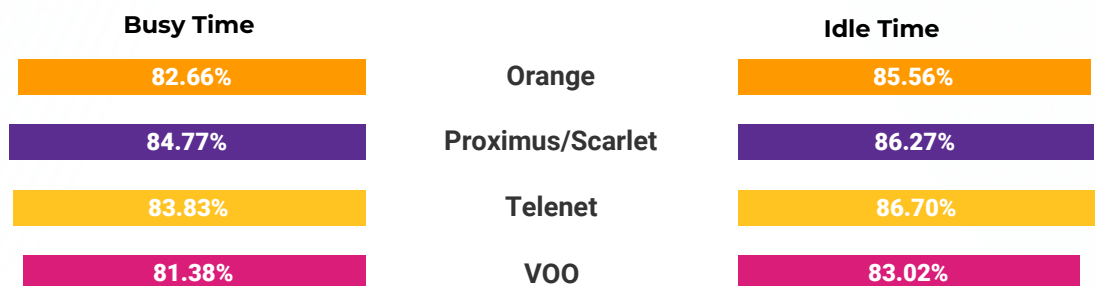
The subscribers of Telenet and Proximus/Scarlet enjoyed the best mobile Internet streaming performance in 2023.

Streaming Performance results ventilation (average)



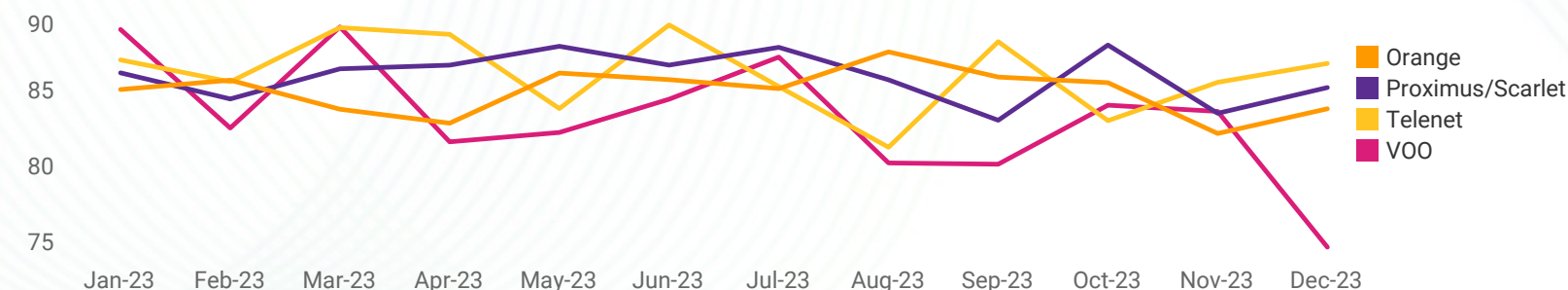
Source : nperf.com

Streaming Performance rate (average)



Source : nperf.com

Streaming performance rate (average) evolution over the year



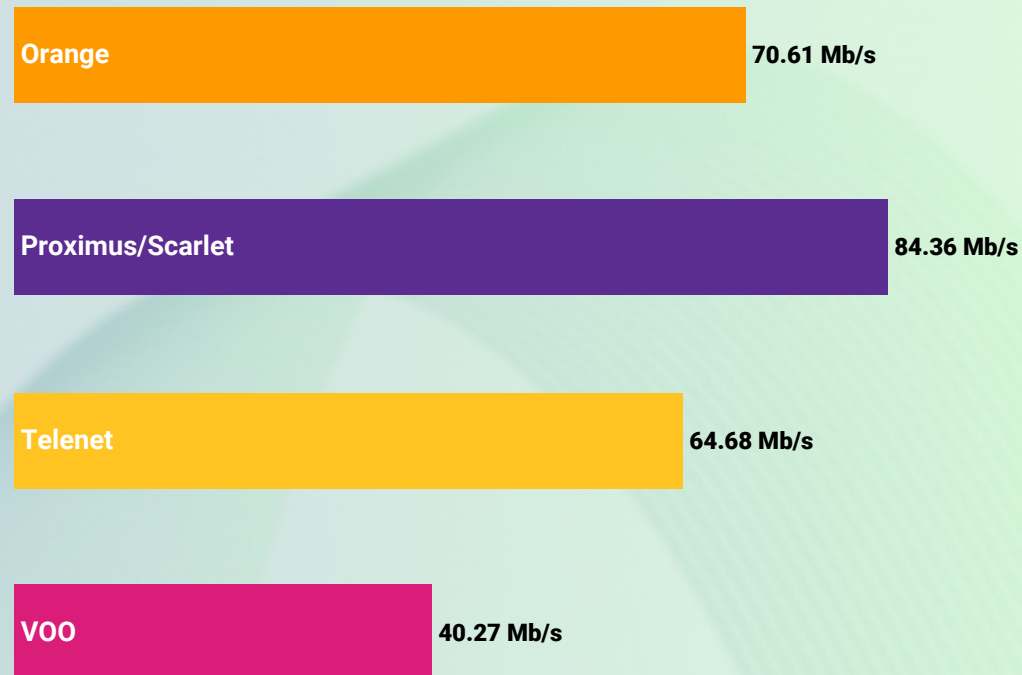
Source : nperf.com



Speed : Download



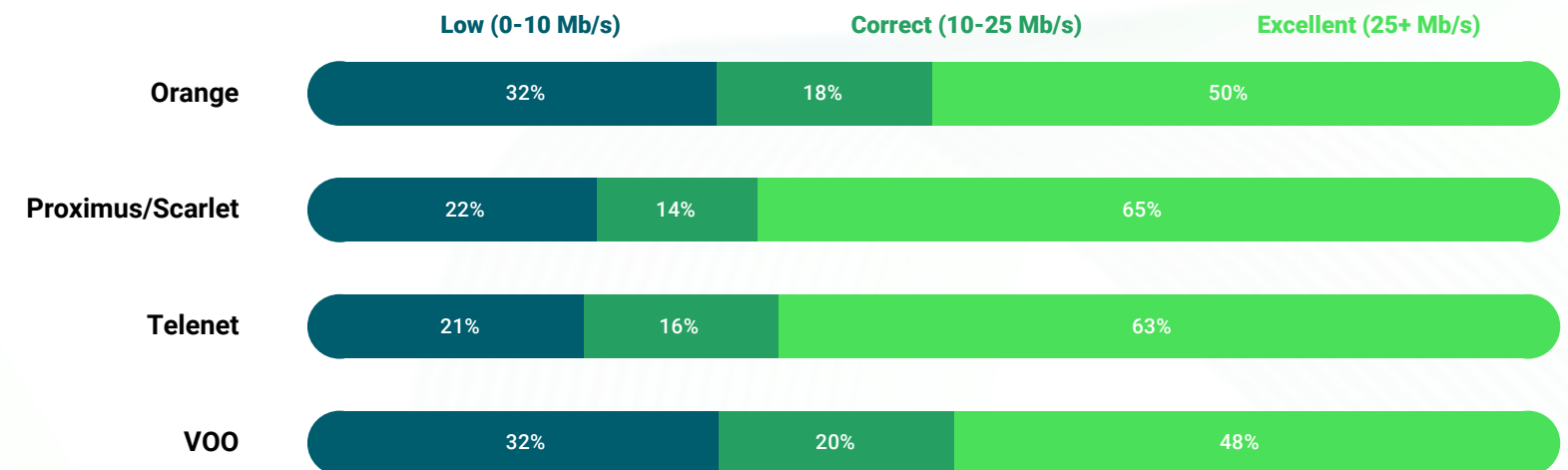
Download Speed (average)



Source : nperf.com

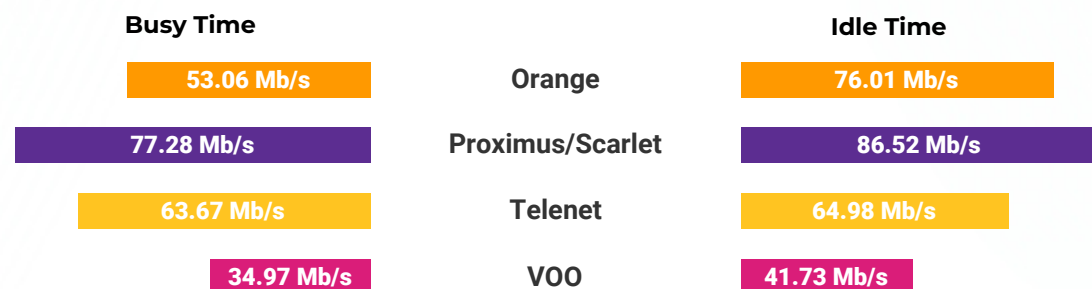
The subscribers of Proximus/Scarlet enjoyed the best average mobile Internet download speed in 2023.

Download Speed results ventilation (average)



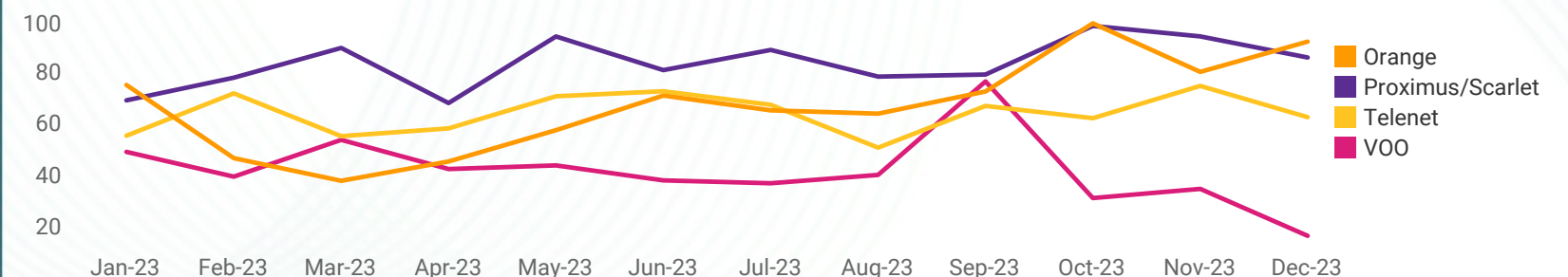
Source : nperf.com

Download Speed (average)



Source : nperf.com

Download Speed evolution over the year (average)



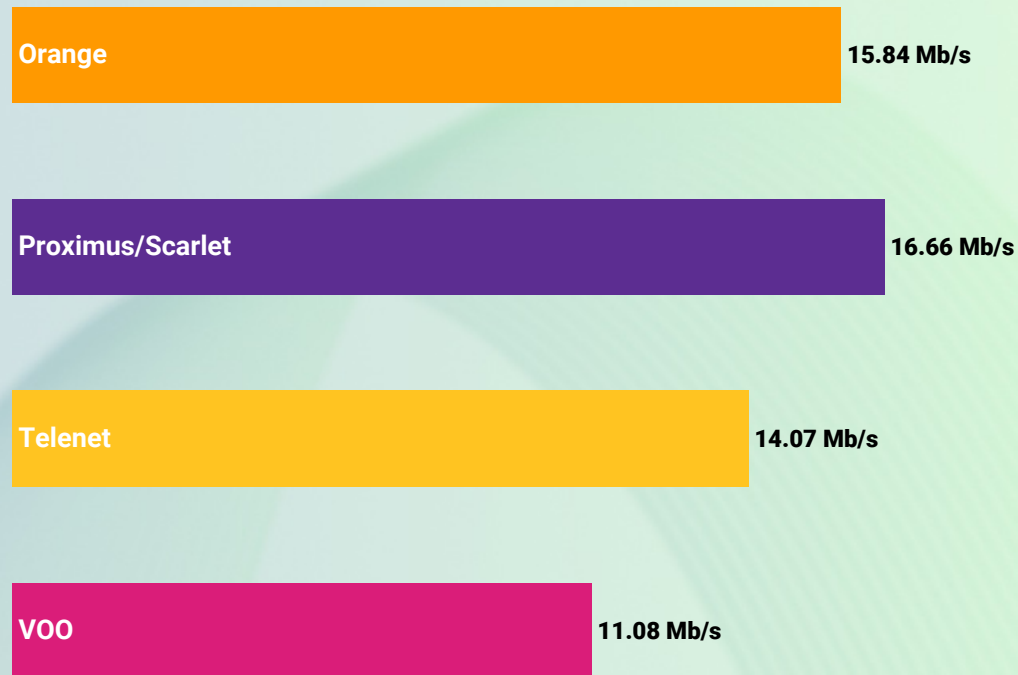
Source : nperf.com



Speed : Upload



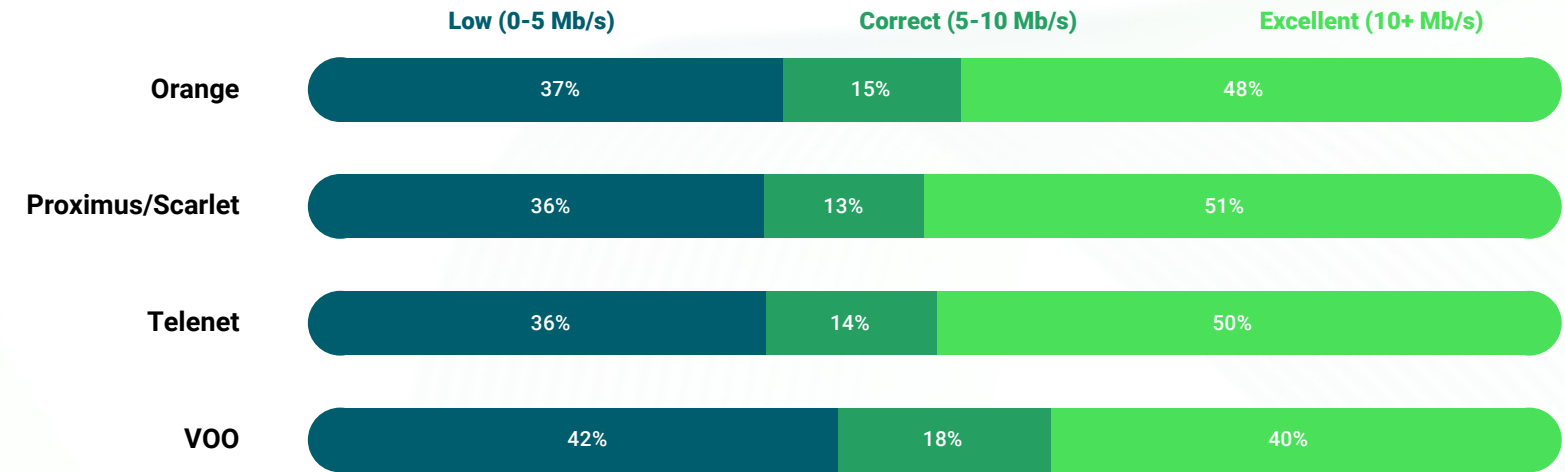
Upload Speed (average)



Source : nperf.com

The subscribers of Proximus/Scarlet enjoyed the best average mobile Internet upload speed in 2023.

Upload Speed results ventilation (average)



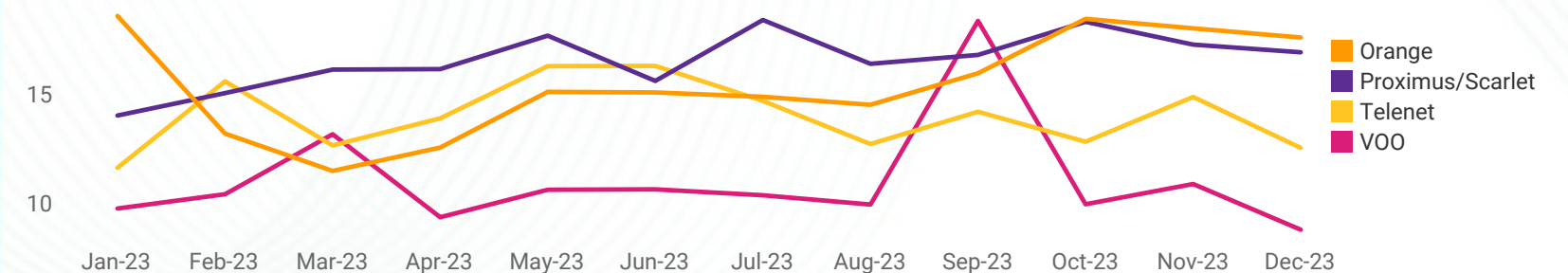
Source : nperf.com

Upload Speed (average)



Source : nperf.com

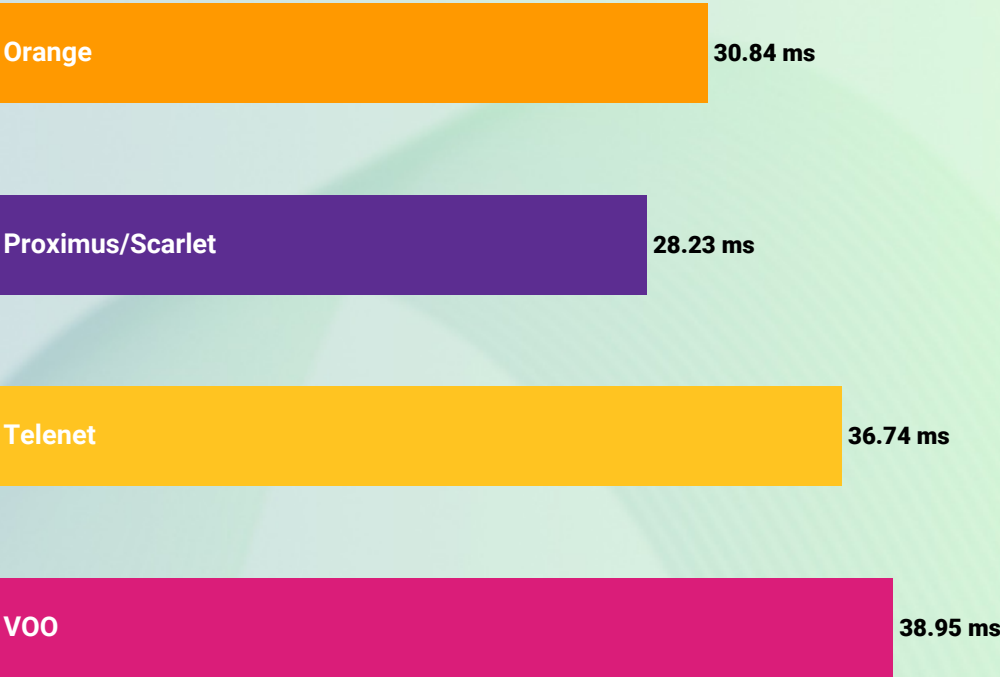
Upload Speed evolution over the year (average)



Source : nperf.com



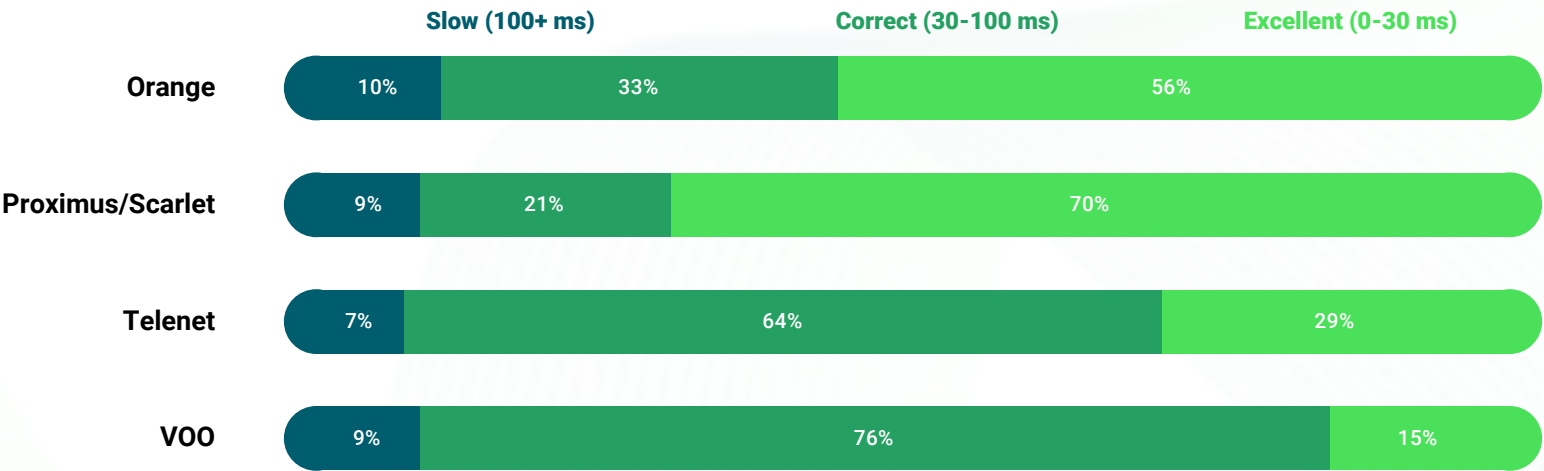
Latency Speed (average)



Source : nperf.com

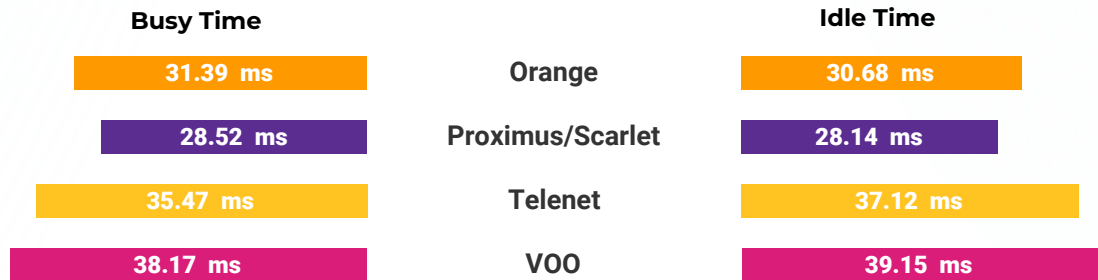
The subscribers of Proximus/Scarlet enjoyed the best average mobile Internet latency speed in 2023.

Latency Speed results ventilation (average)



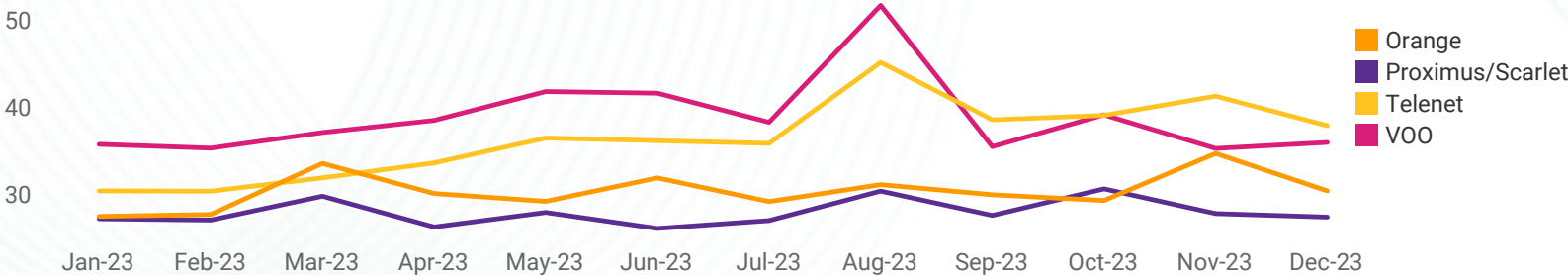
Source : nperf.com

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 Orange enjoyed the best 5G mobile connections in Belgium during 2023.

- Best 5G Mobile Performance : Orange(127589 nPoints)
- Best 5G Mobile Download speed : Orange(296.26 Mb/s)
- Best 5G Mobile Upload speed : Orange (42.64 Mb/s)
- Best 5G Mobile Latency speed : Orange(24.13ms)
- Best 5G Mobile Browsing experience : Orange (80.85 %), Telenet (79.19 %) and Proximus/Scarlet (78.81 %)
- Best 5G Mobile Video experience : Orange(89.77 %) and Proximus/Scarlet (89.13 %)

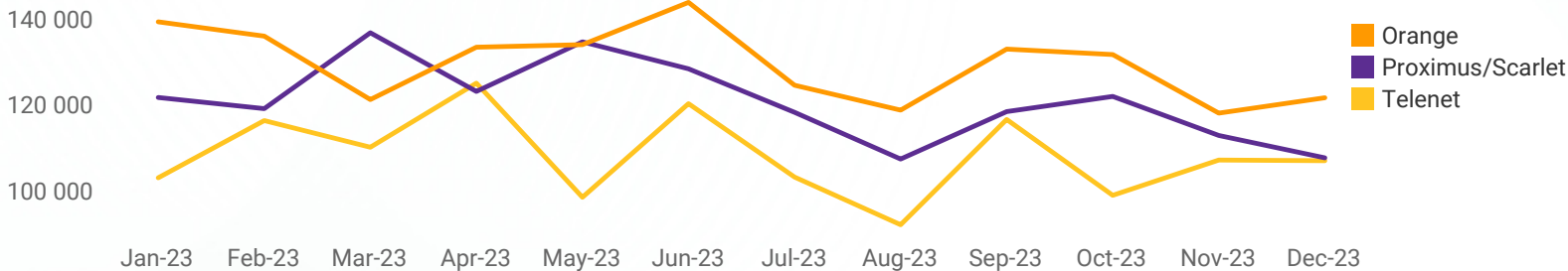
Source : nperf.com

5G nPerf score (average)



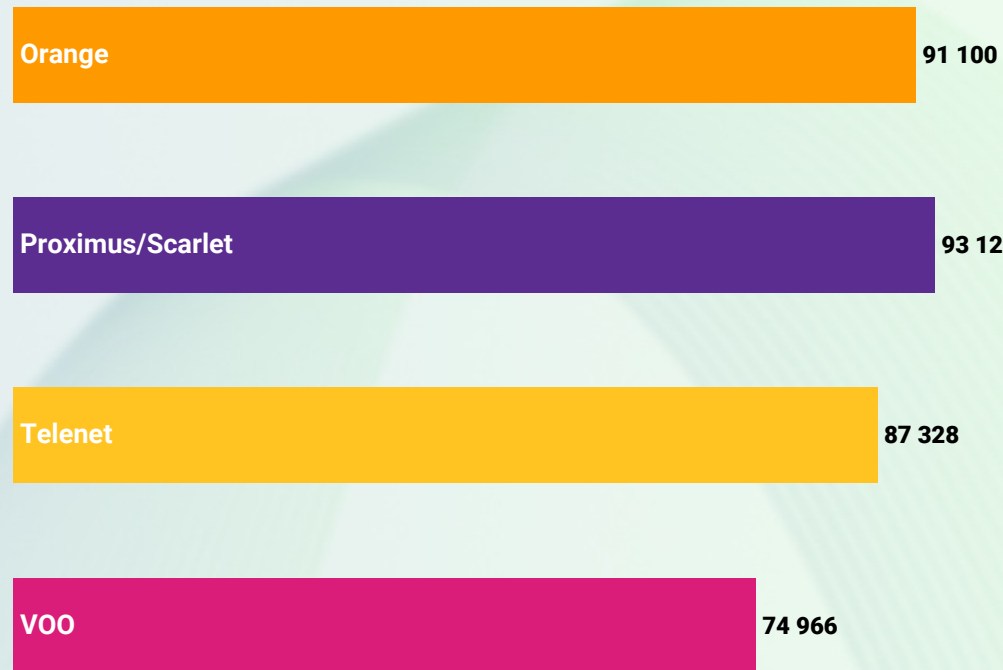
Source : nperf.com

nPerf score evolution over the year (average)



Source : nperf.com

nPerf Score (nPoints)



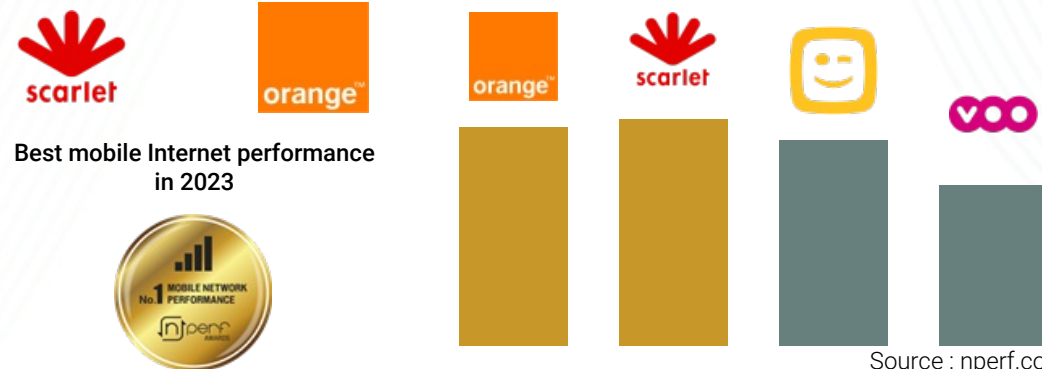
Source : nperf.com

The subscribers of Proximus/Scarlet and Orange enjoyed the best mobile Internet performances in Belgium 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.

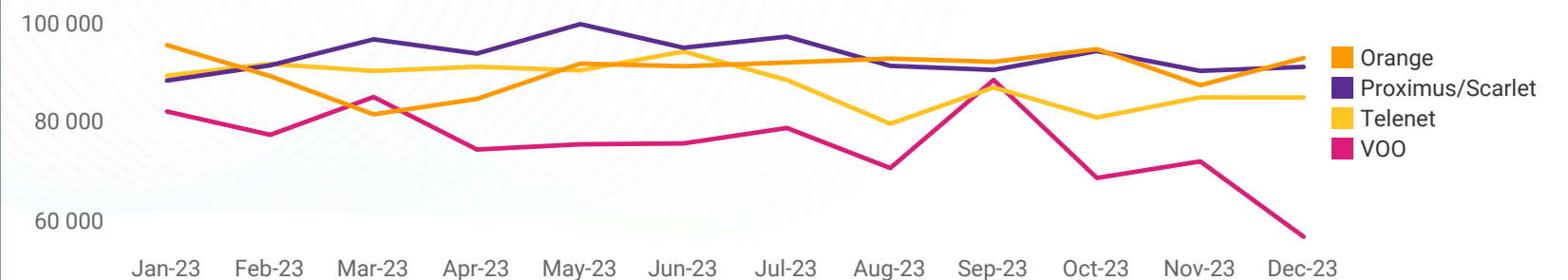
Thus, this score reflects the overall quality of the connection experienced by the user.

Source : nperf.com



Source : nperf.com

nPerf score evolution over the year (average)



Source : nperf.com

