Barometer of fixed Internet connections in Turkey

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2021 Report

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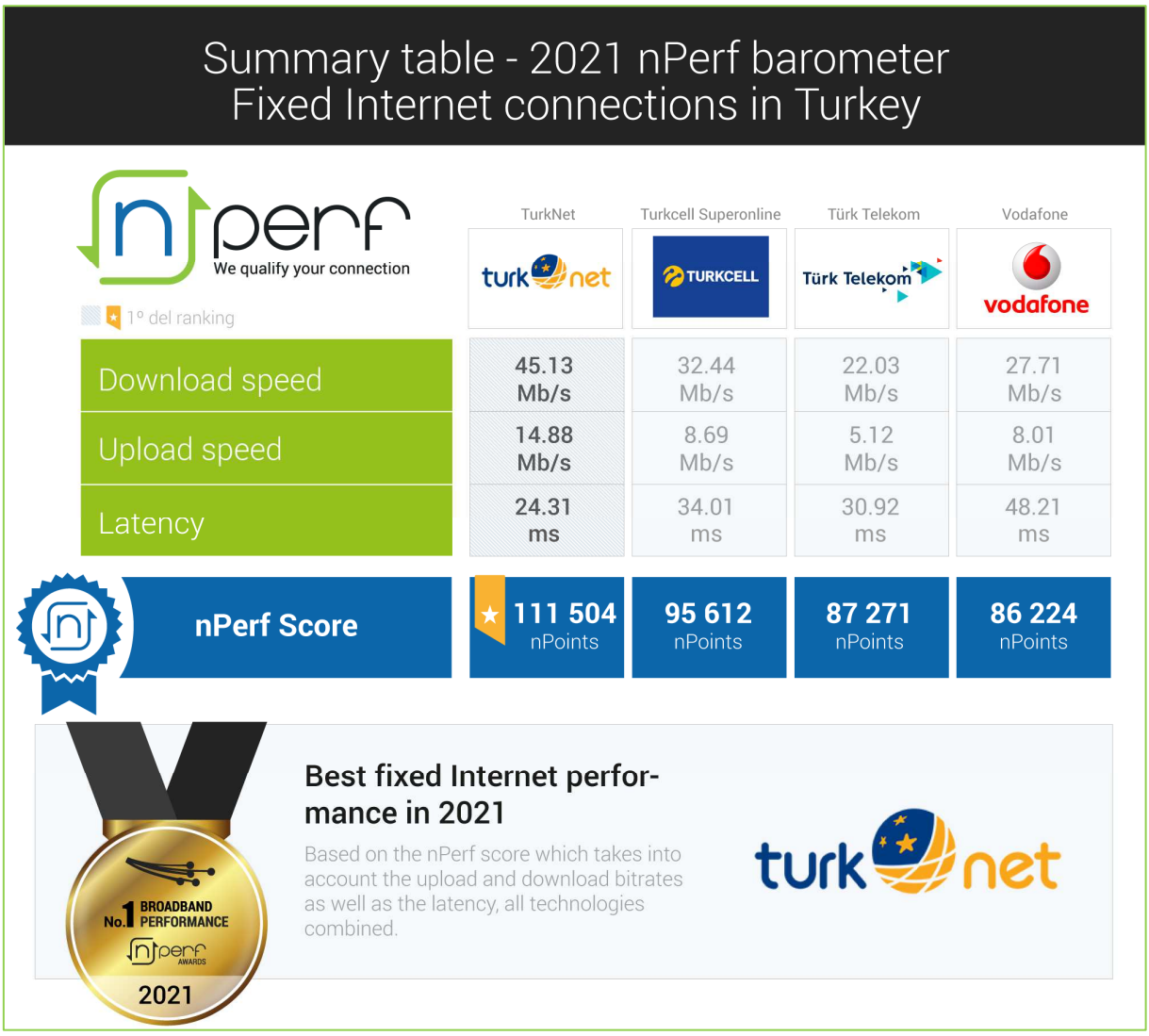
1 Summary of global results

1.1 Summary table and nPerf score, all technologies combined



TurkNet, the best fixed Internet performances in 2021.

1.2 Our analysis

In 2021, nPerf users performed 4 000 921 connection tests on the four largest ISPs in Turkey. After filtering, our survey is based on **3 035 164 relevant tests**.

TurkNet has provided the best fixed Internet performance in 2021, as its 111 504 nPoints show.

TurkNet leaves no chance to its competitors, by wining comfortably all indicators. The performances' gap with its opponents has skyrocketed in 2021.

Turkcell Superonline finishes in second position and eventually relinquishes its leadership on the upload speed to **TurkNet,** which records a spectacular growth of +215% (+10 Mb/s), up to 14.88 Mb/s.

On the other hand, **Türk Telekom** has ended up third, by outranking **Vodafone**. As a matter of fact, the average latency is much better on its network, and that is enough to surpass its competitor, even if Vodafone shows better figures on the downlink and uplink speed.

Conclusion

On fixed networks, the last champion of our barometer consolidates its domination.

With a download speed of 45 Mb/s, a huge progress on the upload speed, and a good latency, TurkNet has kept his opponents away.

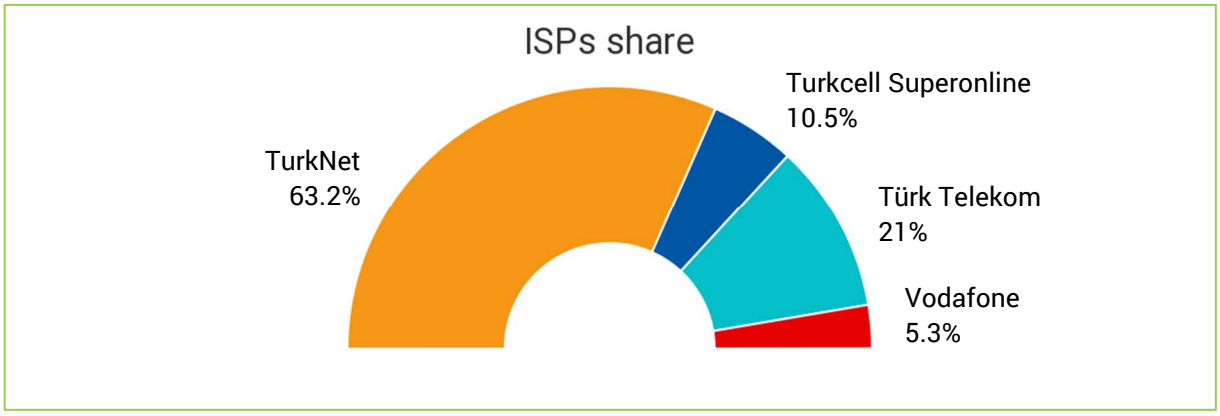
2 Overall results

2.1 Data volume and distribution

From **January 1st, 2021** to **December 31st, 2021** we counted **4 000 921 tests**, distributed after filtering as follows (see § 5.4) :

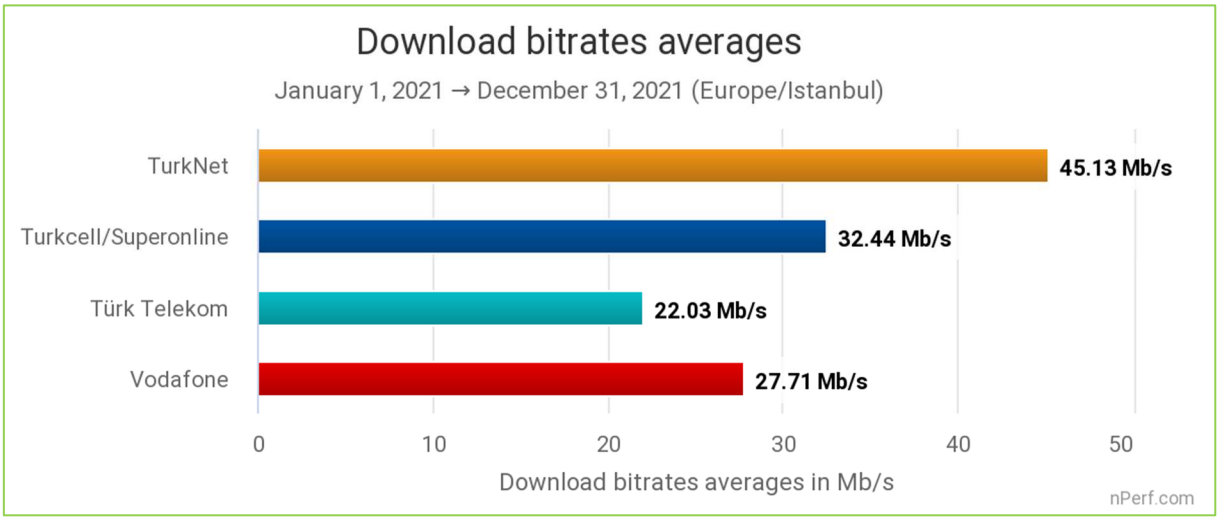
Country	Tests
Turkey	**3 035 164**

The breakdown of tests by provider is as follows :



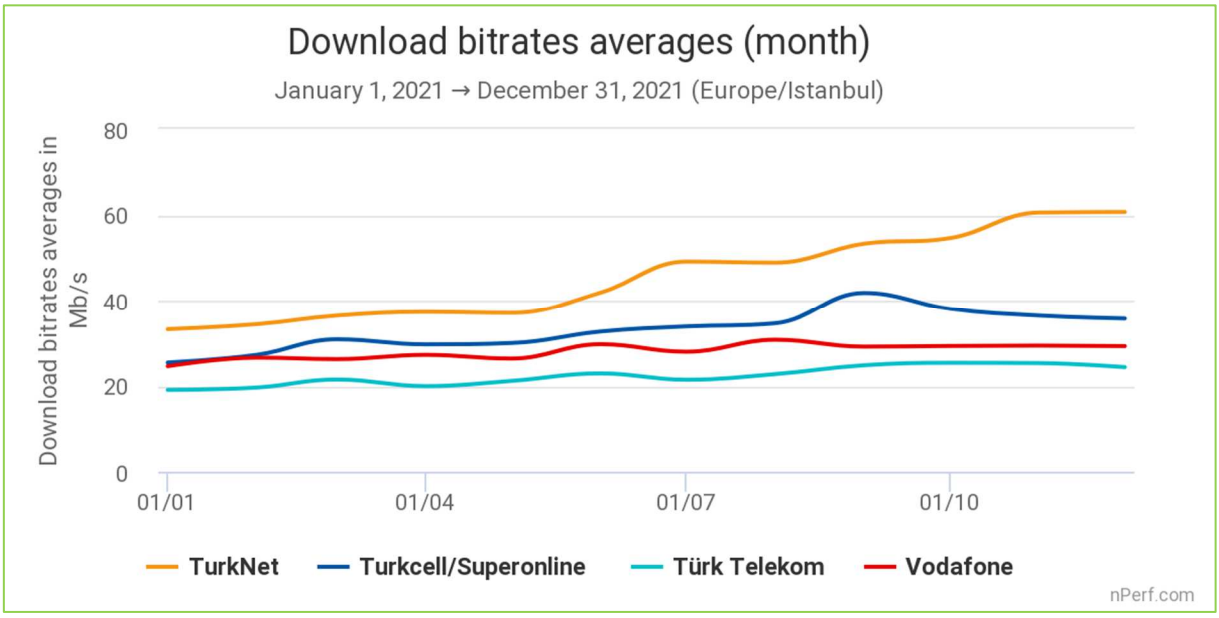
2.2 Download speed

In 2021, the average download speed in Turkey was 38 Mb/s.



The highest value is the best.

TurkNet has provided the best fixed download speed during 2021.

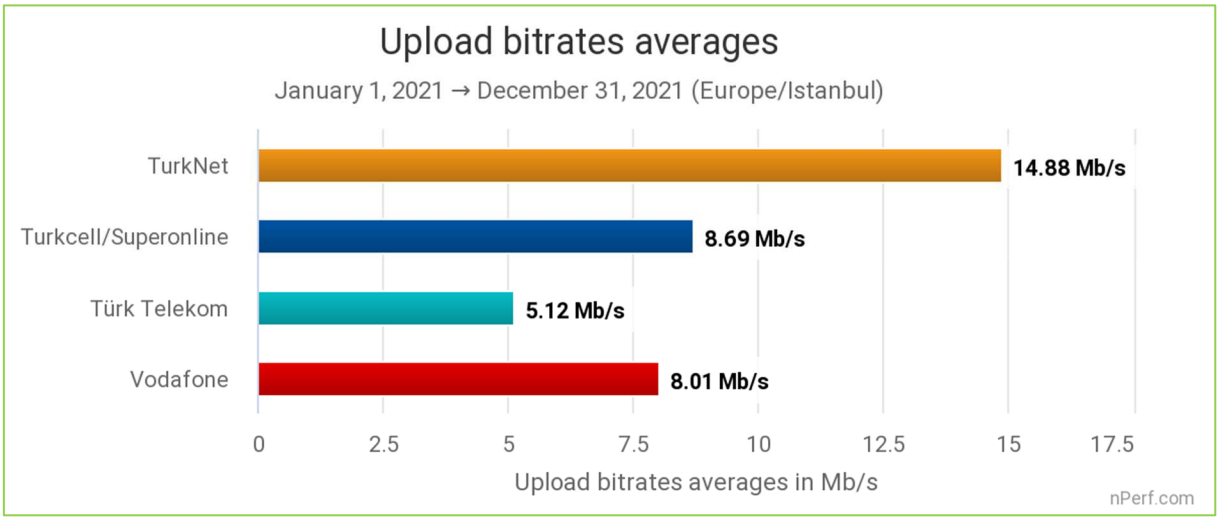


Above graph illustrates the ability of the providers to maintain a constant download speed over the period regardless of network load (number of connected end-users).

Globally, all ISPs provided stable download speeds during the period. TurkNet has clearly accelerated its improvement in the second semester, and shows the best year-to-year progression too, by +19Mb/s, that is to say +71% comparing to 2020. Indeed, the average distance to the next ranked competitor, Turkcell/Superonline, is now four times larger than in 2020 (+13 Mb/s).

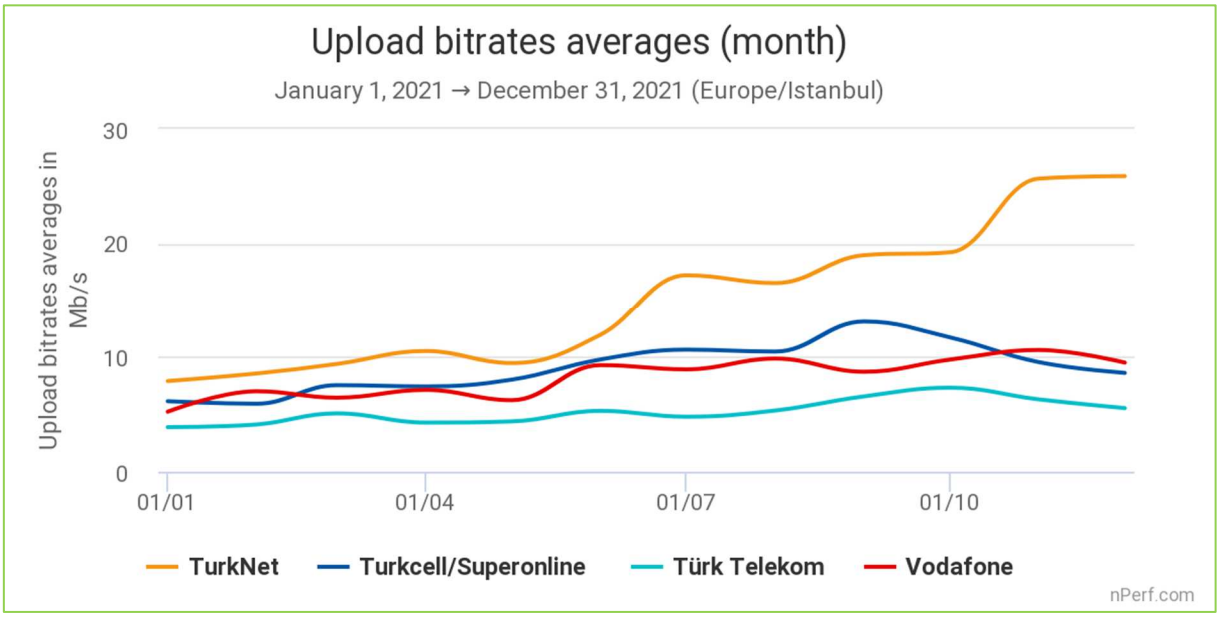
2.3 Upload speed

In 2021, the average upload speed in Turkey was 12 Mb/s.



The highest value is the best.

Turkcell Superonline has provided the best fixed upload speed during 2021.



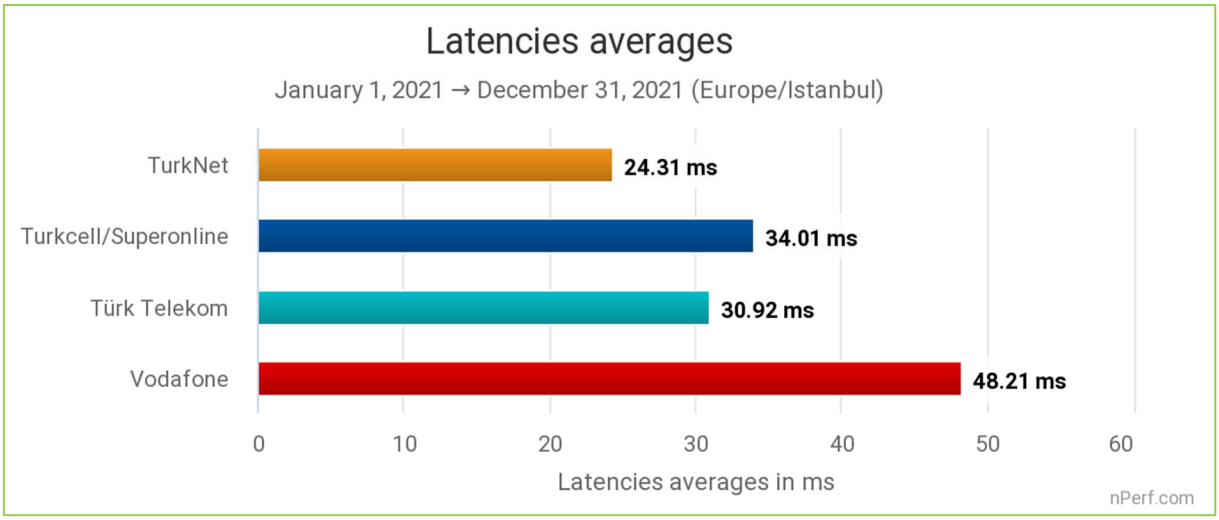
The highest value is the best.

We can clearly observe that Turknet has rushed its enhancement starting June. From this moment, the upload speed average of this networks has continually climbed, whereas its competitors have improved it to a lower pace. This has allowed it to take away the lead from Turkcell/Superonline on this indicator.

Furthermore, the monthly figures for Turkcell/Superonline and Vodafone look similar throughout 2021, and Türk Telekom stays in the last position.

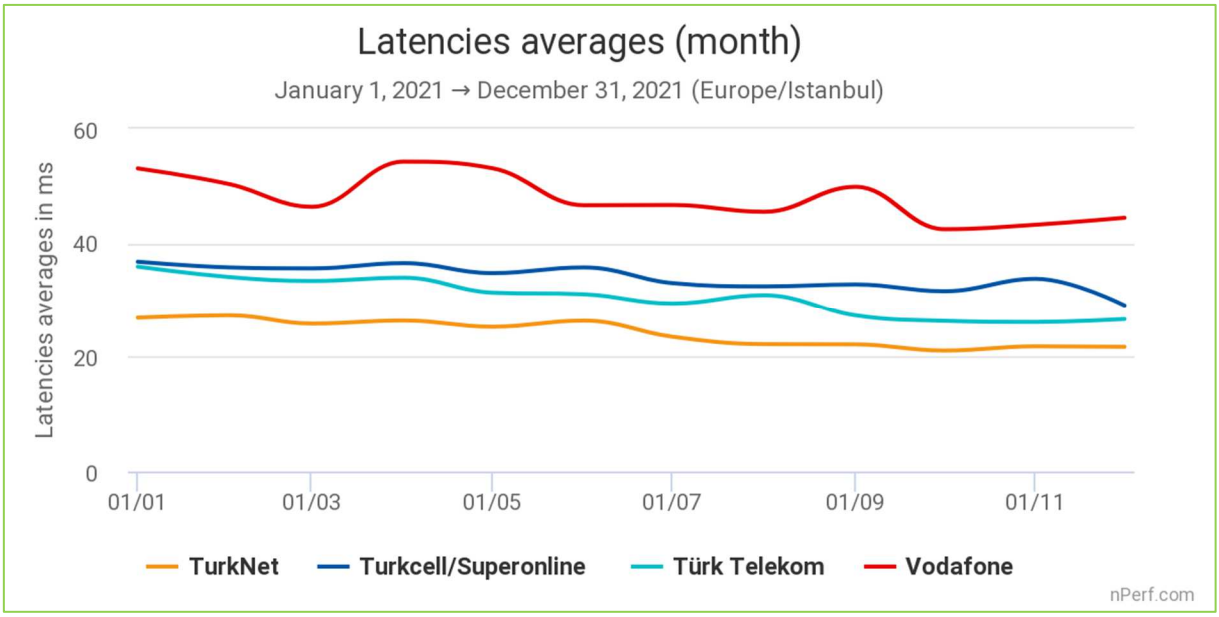
2.4 Latency

In 2021, the average latency in Turkey was 28 ms.



The lowest value is the best.

TurkNet has provided the best fixed latency during 2021.



The lowest value is the best.

This graph illustrates the ability of the providers to maintain a constant latency during the period, regardless of network load (number of connected end-users).

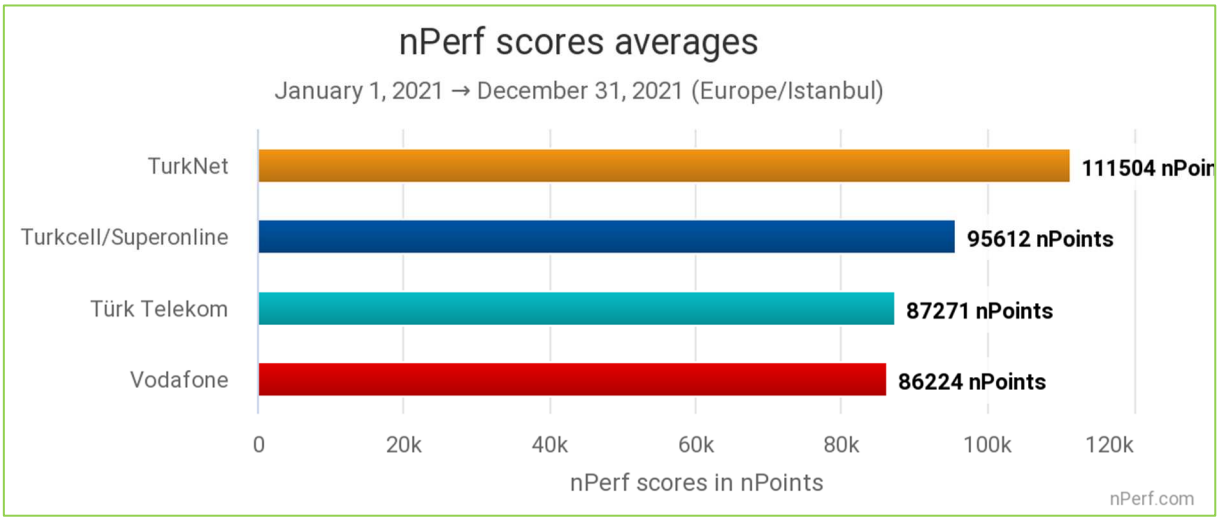
Comparing to 2020, we can notice a significative improvement in the latency of the networks. Türk Telekom and Turkcell/Superonline remain much closer to the leader than Vodafone does. On average, the latency of those providers has improved about almost 8 ms from 2020 (22%).

Besides, Türk Telekom has taken away the 2020's second ranking of Turkcell/Superonline.

2.5 nPerf score, all technologies combined

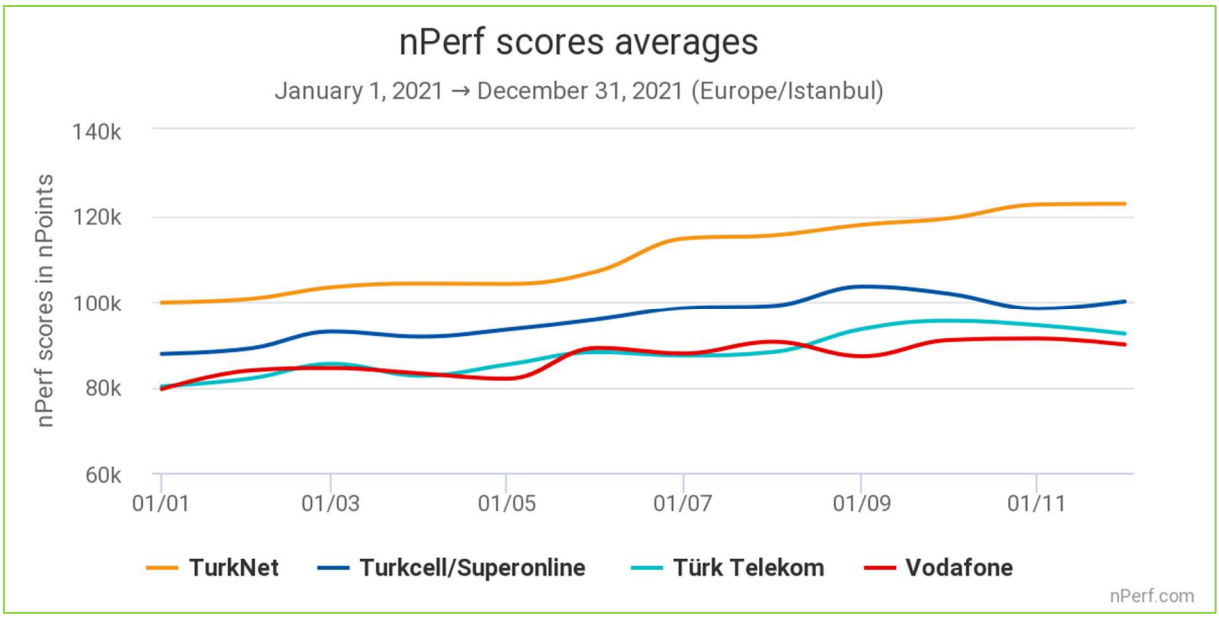
The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account the measured bitrates (2/3 Download + 1/3 Upload) and the latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection for mainstream consumer use.



The highest value is the best.

TurkNet, the best fixed Internet performance in 2021.



TurkNet speeds up his escape from his opponents.

The fixed Internet performances of all ISPs have considerably progressed throughout the year 2021, earning approximately from 9 000 points (Vodafone) to 23 000 points (TurkNet). All providers together, that represents an increase of +22% (+18 568 points).

3 You too, participate in the nPerf panel!

To participate in the panel, simply test your connection on the website www.nperf.com.

For mobile Internet, you can also use the nPerf app, available for free on the Apple AppStore for iPhone and iPad and on Google Play for Android devices.

4 Custom analysis & contact

Do you need further study or want to get the raw data, punctually or automatically, to compile it yourself?

You can contact nPerf via www.nPerf.com "Contact Us" section, or directly from the mobile app.

Phone contact: +33 482 53 34 11

Address: nPerf SAS, 87 rue de Sèze, 69006 LYON, France

Stay in touch with us, follow us!



5 Methodology

5.1 The panel

nPerf offers an Internet speed test application, which can be used for free at www.nPerf.com.

Everyone is free to use nPerf to measure the speed of their Internet connection. All users of the nPerf application form the panel of this study.

In addition, the results from the nPerf speed tests integrated on our partner websites are also included in the panel.

Thus, the nPerf study is based on thousands of tests, making it one of the studies with the largest panel in Turkey.

5.2 Speed and latency tests

5.2.1 Objectives and operation of the speed and latency test

The purpose of the nPerf Speed Test is to measure the maximum capacity of the data connection in terms of data rates and latency.

To achieve this, nPerf establishes multiple connections simultaneously to saturate the bandwidth to accurately measure it. The speed used for the barometer is the average speed measured by the application.

Speed measurements thus reflect the maximum capacity of the data connection. This rate may not be representative of the user experience experienced during normal use of the Internet, as it is measured only on nPerf servers.

The measured bit rate can be impacted by the quality of the user's local network, especially since the expected flow is high. Thus, for an optical fiber internet connection, a local Wi-Fi or Power-Line connection can greatly reduce performance. However, since these constraints are identical to all market operators, they do not bias the comparison. In addition, the user is made aware of these constraints and invited to use a wired local connection for testing very high speed.

5.2.2 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task.

These servers are located with hosts in Turkey and abroad. Indeed, nPerf has installed dedicated servers directly at some Turkish providers to maximize measurement reliability.

Other local providers are welcome to install nPerf servers, that's free!

The total bandwidth available in Turkey is greater than **195 Gb/s**, and exceeds **9 Tb/s** worldwide, with nearly **2 000** active nPerf servers!

5.3 Statistical accuracy

With regard to the total volume of unit tests, the statistical precision used in this publication is:

Category	Number of tests (filtered)	Absolute values	Percentages
Global	3 035 164	0.5%	0.25 point

If, for a given indicator, one or more operators have results very close to the best, in the confidence interval defined above, these will **share the first place**.

5.4 Filtering of test results

The results obtained are subject to automatic and manual checks to avoid duplication and to rule out possible abusive or fraudulent use (massive tests, robots ...).

Tests performed on cellular connections (2G, 3G, 4G & 5G), or on professional/business/academic networks are also excluded from this barometer.