

Barometer of Fixed Internet Connections in Poland

2019 report



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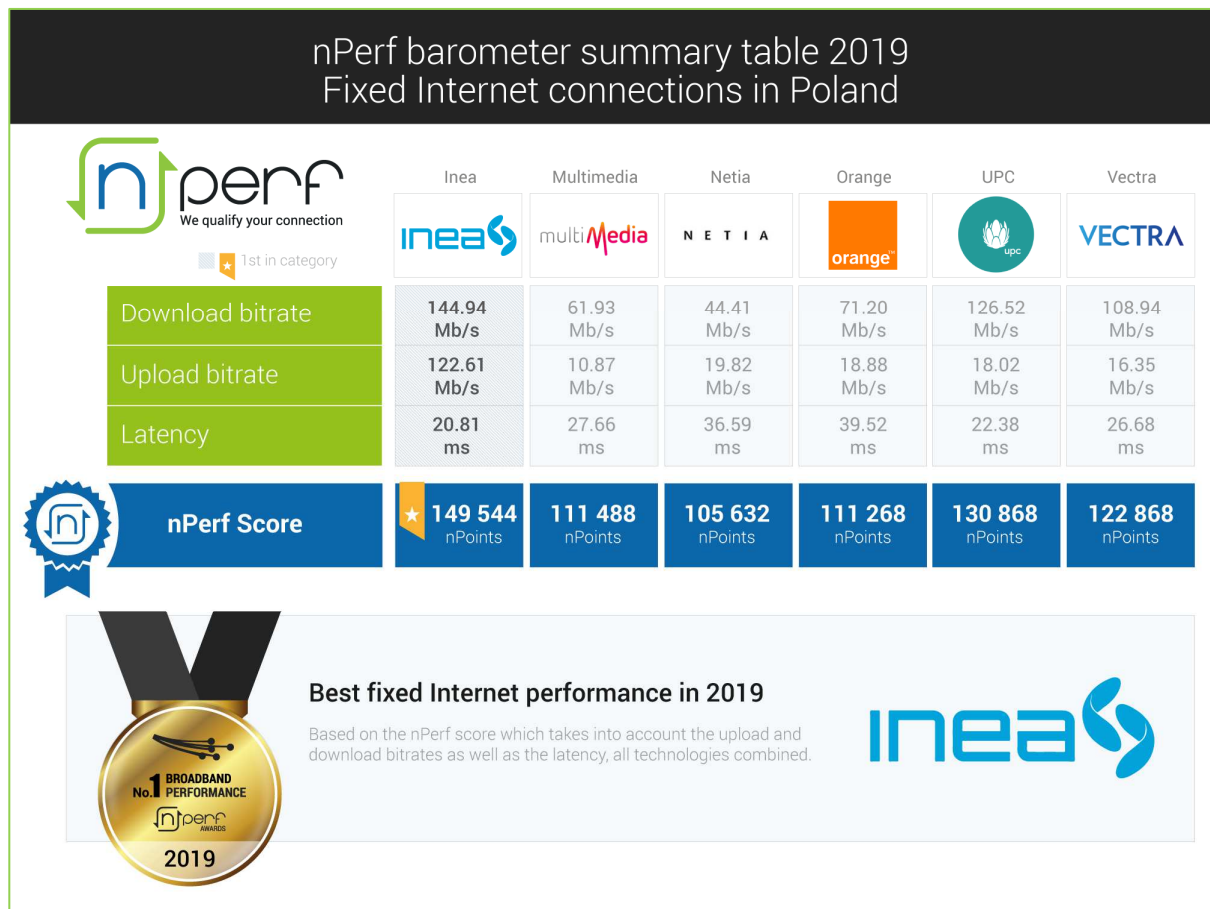


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1 Summary of global annual results

1.1 Summary table and nPerf score, all technologies combined



***** Inea, the best fixed Internet performance 2019 *****

1.2 Our analysis

In 2019, nPerf users carried out 55,434 tests of fixed internet connections in Poland on the six largest ISPs in the country.

The Polish population was able to benefit from an average download speed of 89 Mb/s and upload speed of 23 Mb/s.

These throughputs are up by more than 50% compared to 2018 !

Inea dominates the market in terms of performance of fixed Internet connections by being first on download and upload speed tests, and first on latency tests.

Let's relativize a bit these results because Inea represents only 5% of our tests which means that its network is still little used. For comparison, the tests performed on UPC, in second position in our ranking, represent 27% of the overall volume, so it is a very good score for UPC too.

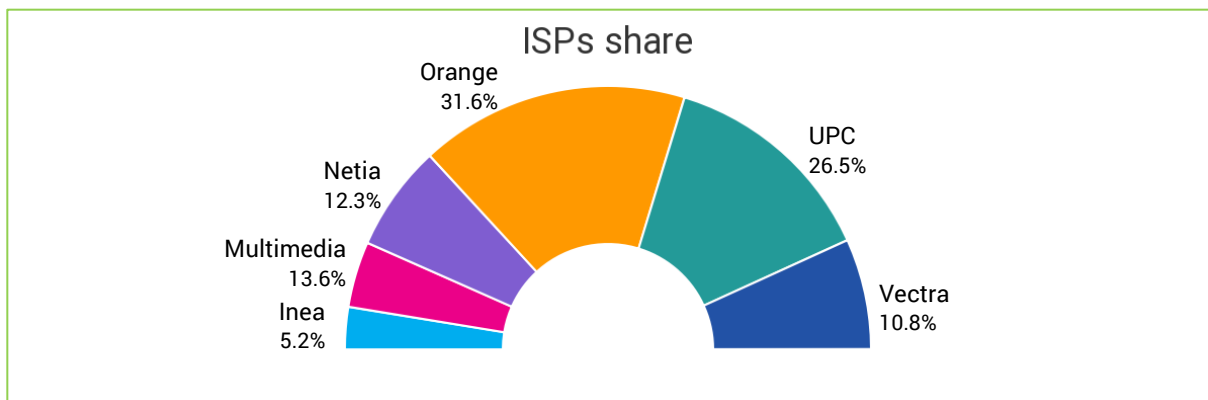
2 Overall results, all technologies combined

2.1 Data amount and distribution

From January 1, 2019 to December 31, 2019 we counted 55,434 tests, distributed after filtering as follows:

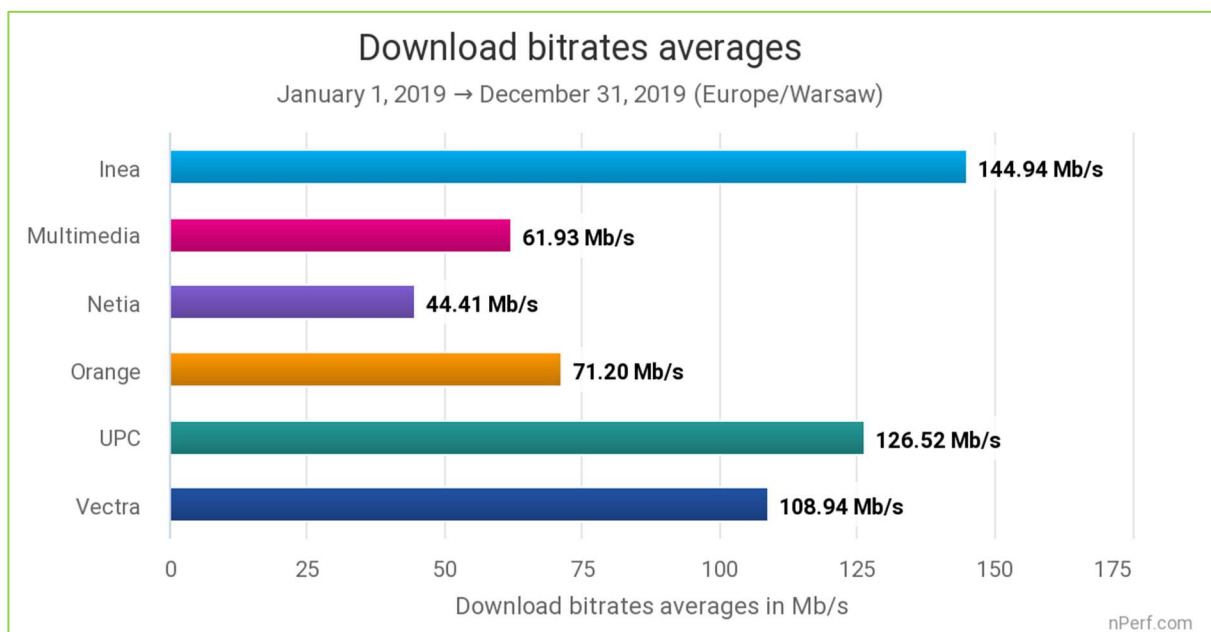
Country	Tests
Poland	44,710

Breakdown of tests by provider



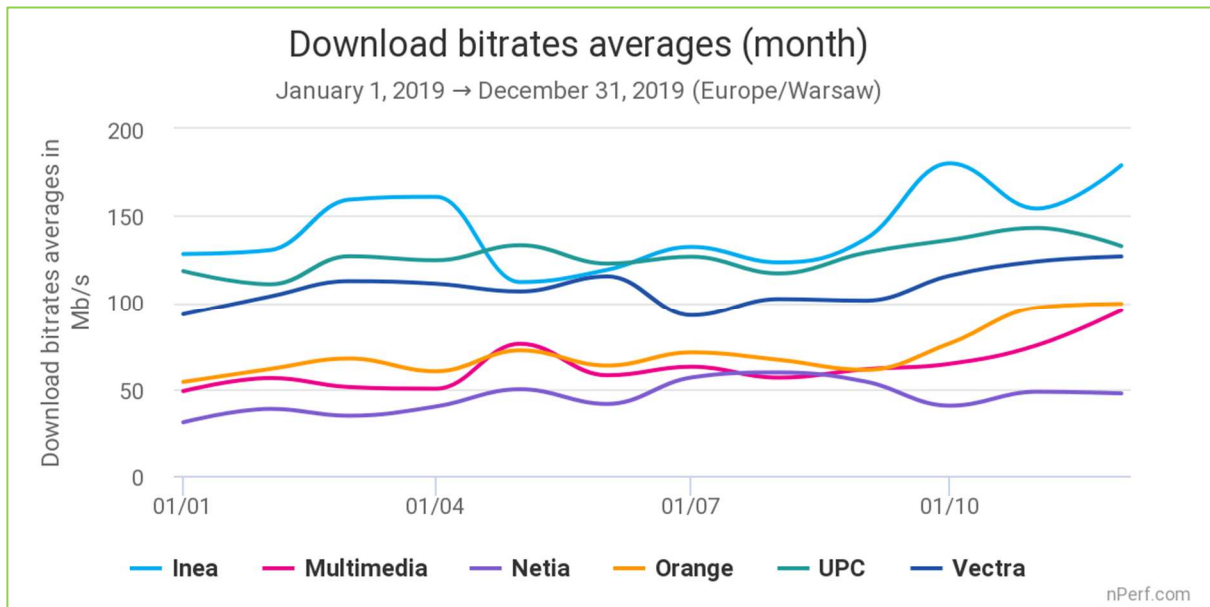
2.2 Download speed

In 2019, the average download speed in Poland was 89 Mb/s.



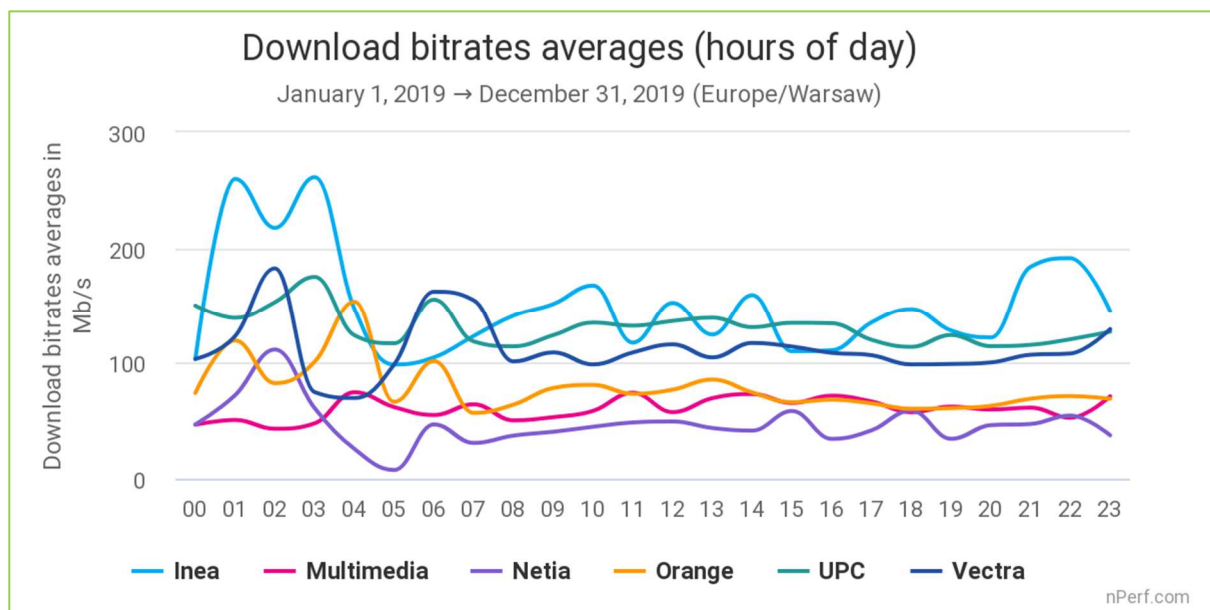
The highest value is the best.

Inea has provided the best fixed download speed during 2019.



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

All ISPs have increased their download speed in 2019.

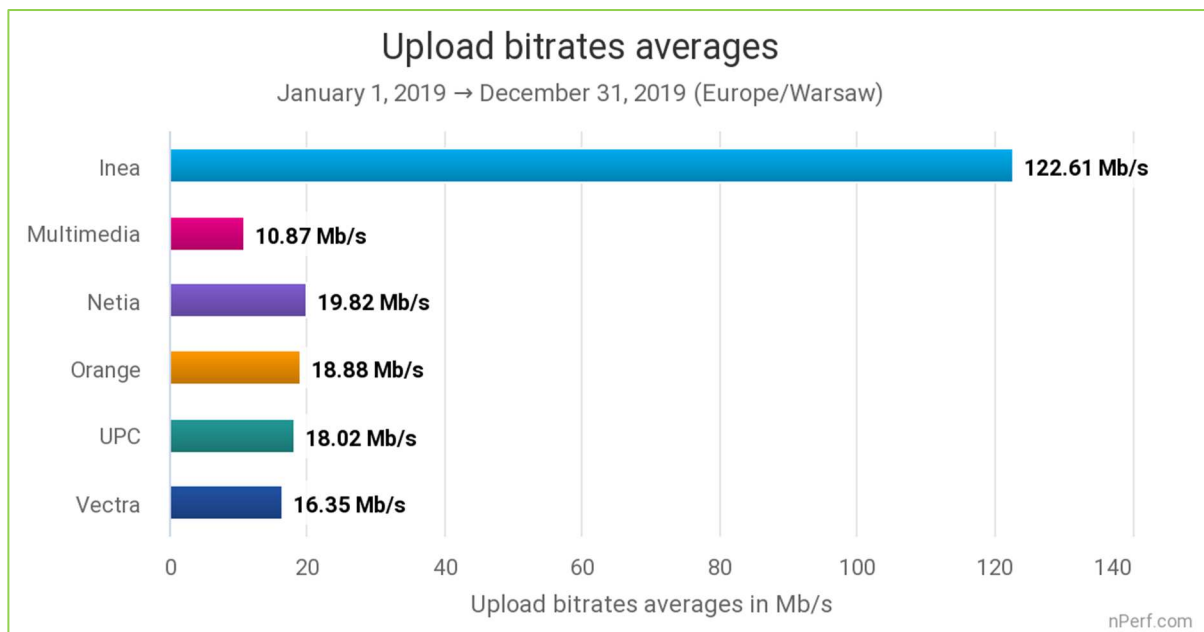


This graph illustrates the ability of providers to ensure a constant download speed throughout the day, regardless of network load (number of connected end-users).

We note that there is no decline of the throughput during the busy hours.

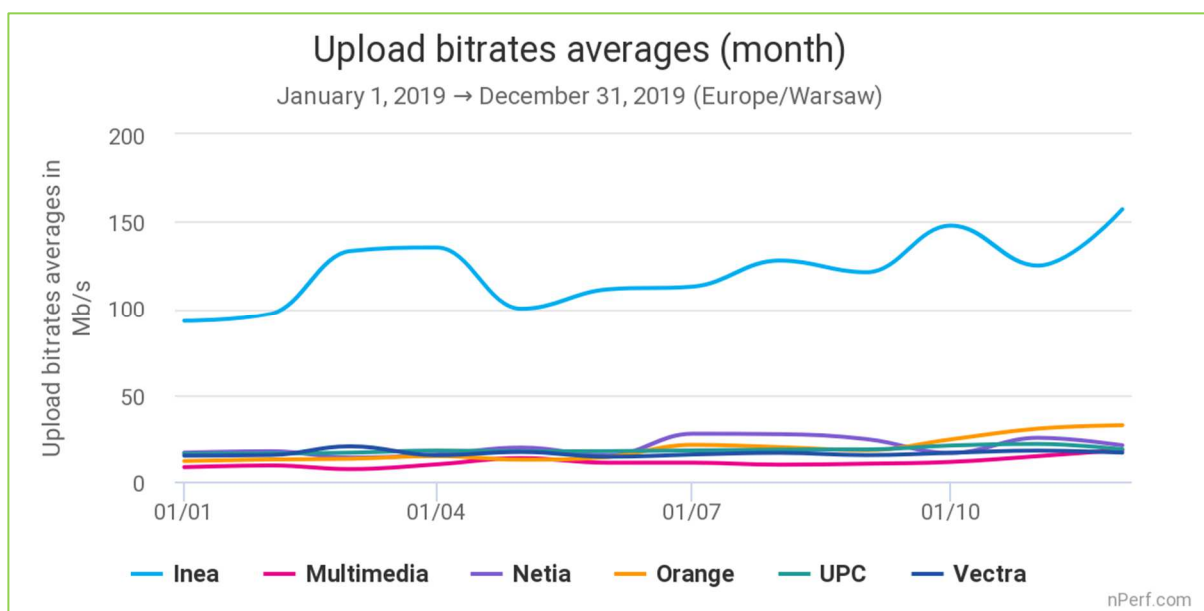
2.3 Upload speed

In 2019, the average upload speed in Poland was 23 Mb/s.



The highest value is the best.

Inea has provided the best fixed upload speed during 2019.

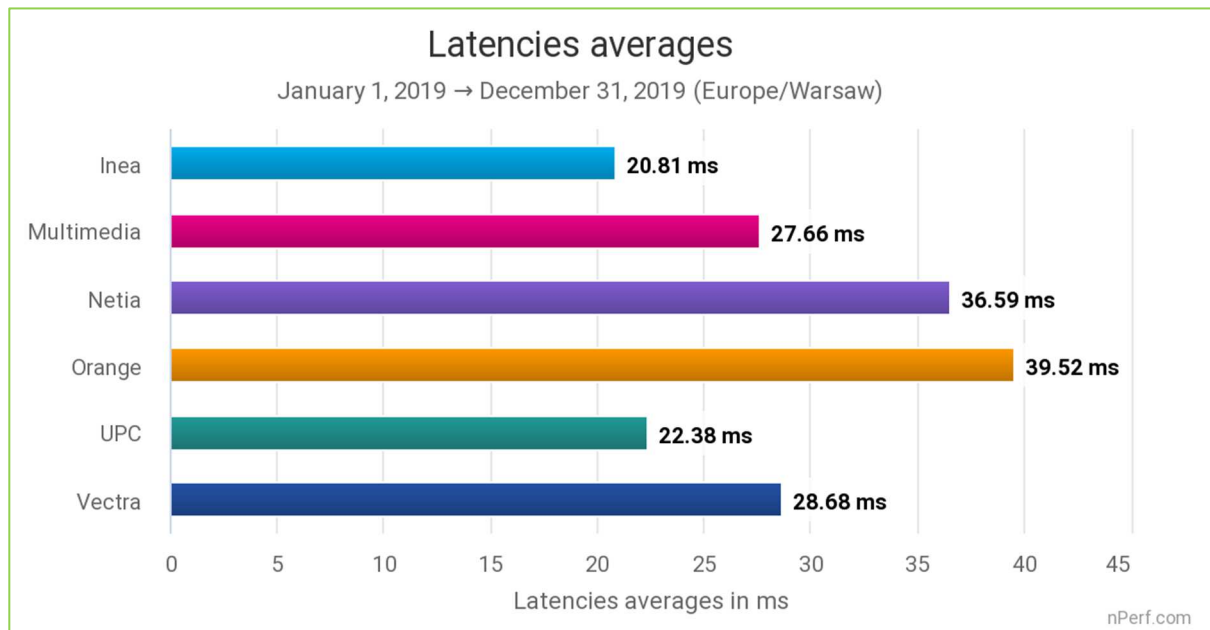


Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected end-users).

Inea stays in the lead throughout the year and even continuously increases its upload speed.

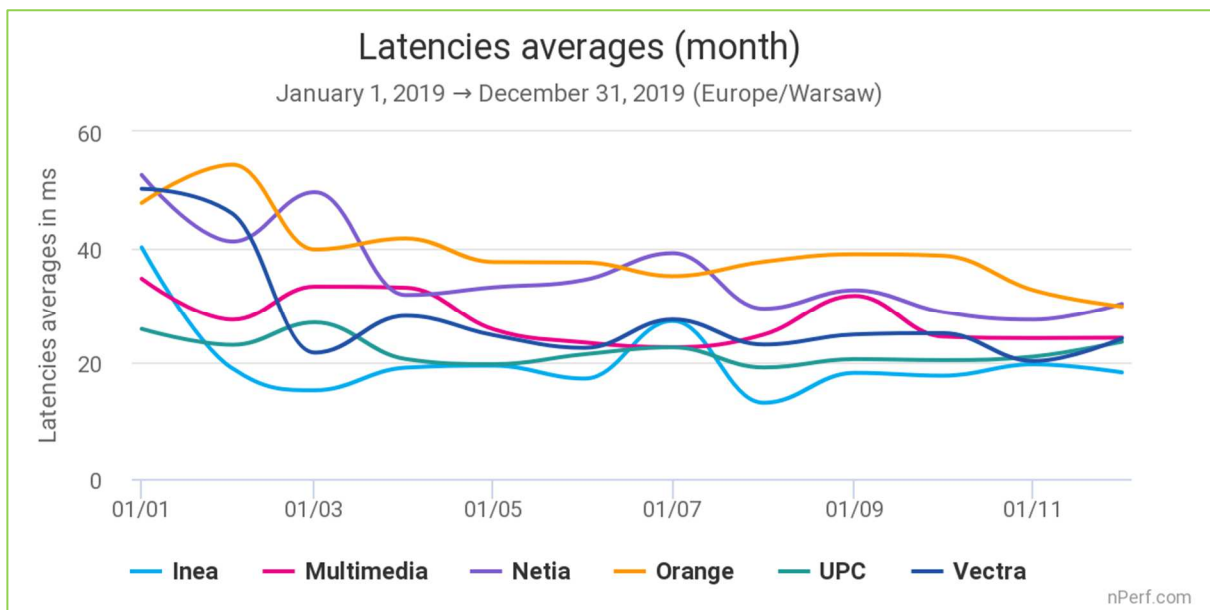
2.4 Latency

In 2019, the average latency in Poland was 31 ms.



The lowest value is the best.

Inea has provided the best fixed latency during 2019.



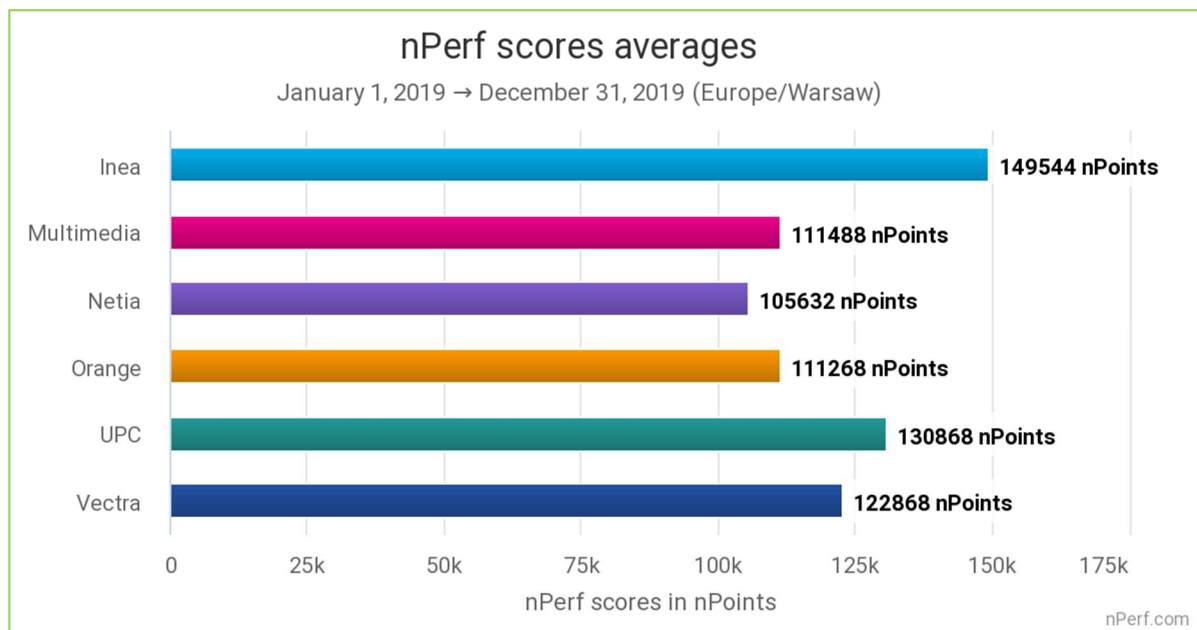
This graph illustrates the ability of providers to maintain a constant latency during the period, regardless of network load (number of connected clients).

We note that many ISPs have significantly improved their latency during the year 2019 so that the gap is narrowing between all of them in the last quarter.

2.5 nPerf score, all technologies combined

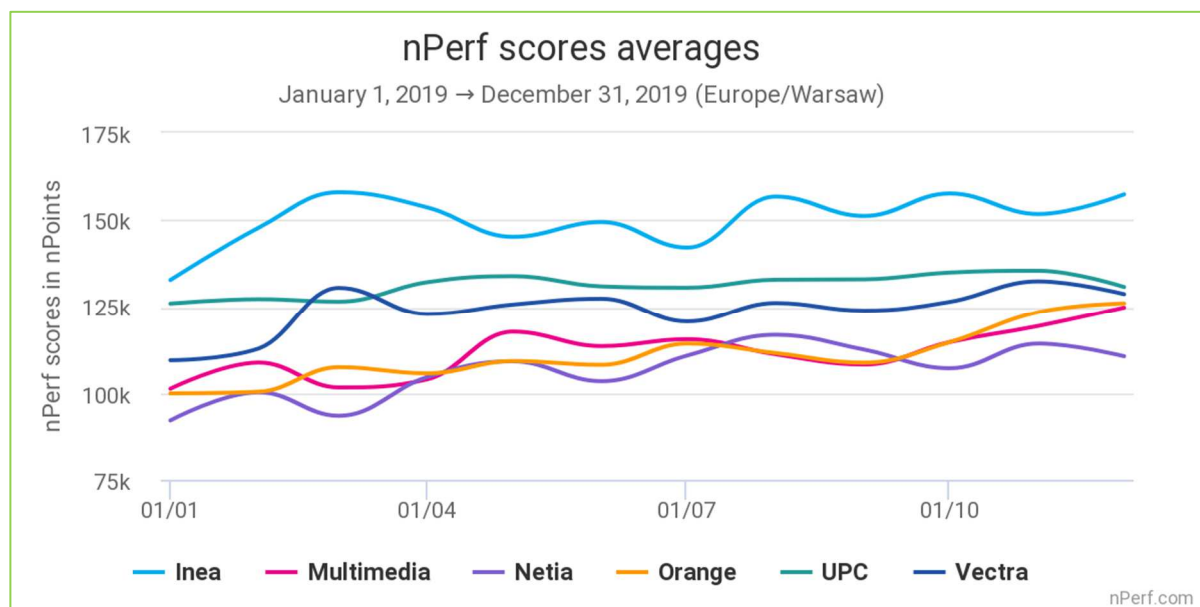
The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

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



The highest value is the best.

Inea, the best fixed Internet performance 2019.



It's Orange who has improved the most on 2019 but Inea is still the leader far ahead its competitors.

3 Methodology

3.1 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 the study with the largest panel in Poland.

3.2 Speed and latency tests

3.2.1 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 WiFi 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.

3.2.2 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 Poland and abroad.

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

The total bandwidth available for Poland is greater than 50 Gb/s and exceeds 4 Tb/s worldwide with more than **1000** active nPerf servers.

3.3 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) are also excluded from this barometer.

3.4 Statistical accuracy

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

- ✓ 3% for absolute values

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

4 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, on Google Play for Android devices and on the Windows Store for Windows Phone and Windows Mobile devices.

5 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!

