

Barometer of Fixed Internet Connections in the Netherlands



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2020 report

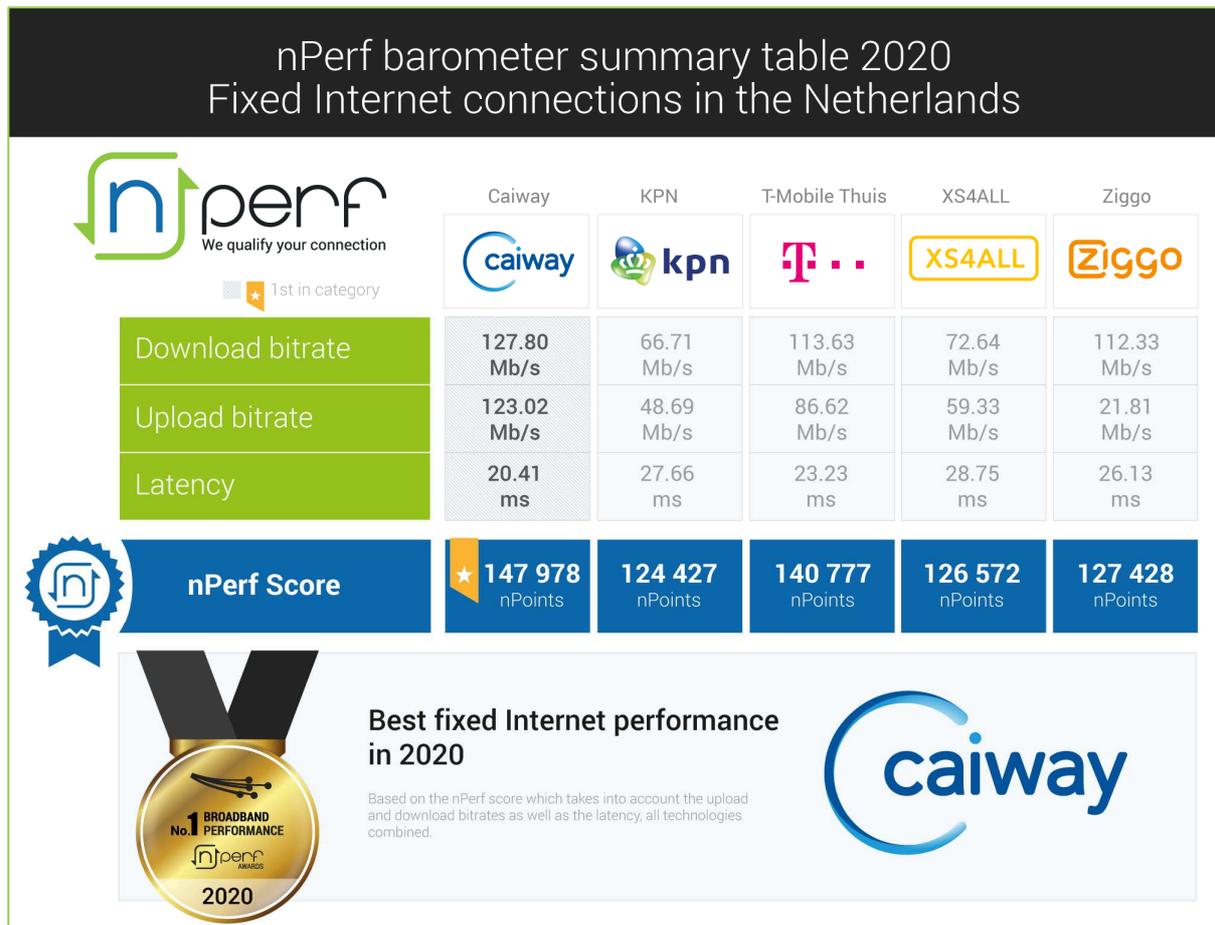


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1 Summary of results

1.1 Summary table and nPerf score, all technologies combined



***** Caiway, the best fixed Internet performance in 2020 *****

1.2 Our analysis

In 2020, nPerf users performed **1,147,558** connection tests on the five largest ISPs in the Netherlands. After filtering, our survey is based on **951,035 relevant tests**.

With 147,978 nPoints, **Caiway has provided the best fixed internet performance 2020**.

Caiway is the winner of all our categories:

- **Best download speed** with 127 Mb/s
- **Best upload speed** with 123 Mb/s
- **Best latency** with 20 ms

Caiway leaves no chance to its competitors !

However, it should be noted that this ISP only represents 6.8 % of our tests, which means that it does not meet the network problems of the imposing historic operators like KPN and ZIGGO.

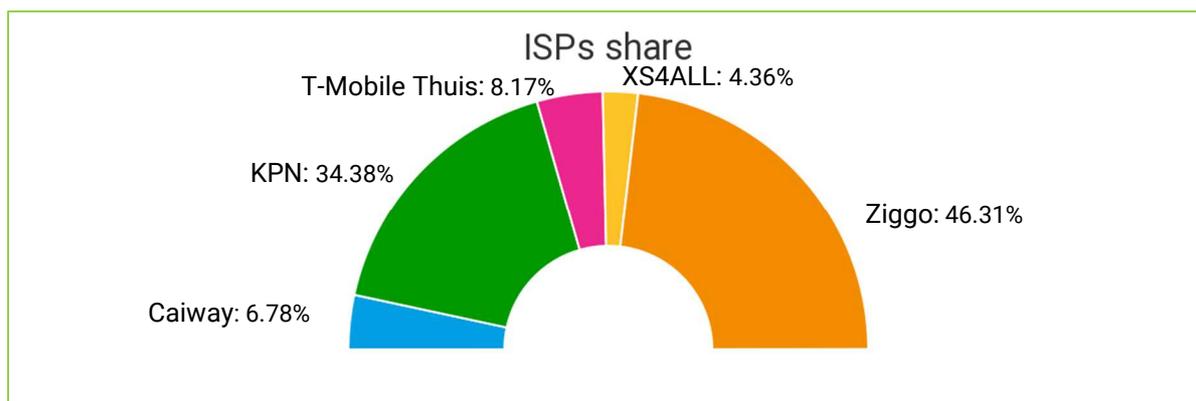
2 Overall results

2.1 Data amount and distribution

Between January 1, 2020 – December 31, 2020 , we counted **1,147,558** unit tests, distributed as follows, after filtering (see § 3.4):

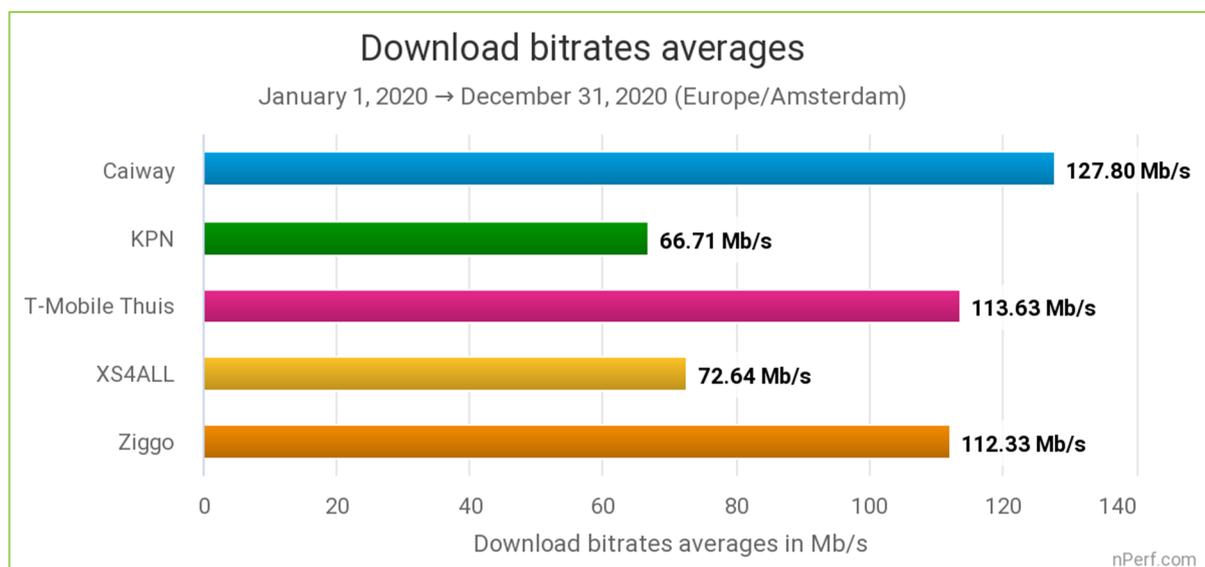
Country	Tests
The Netherlands	951,035

The overall breakdown of the tests per provider is as follows:



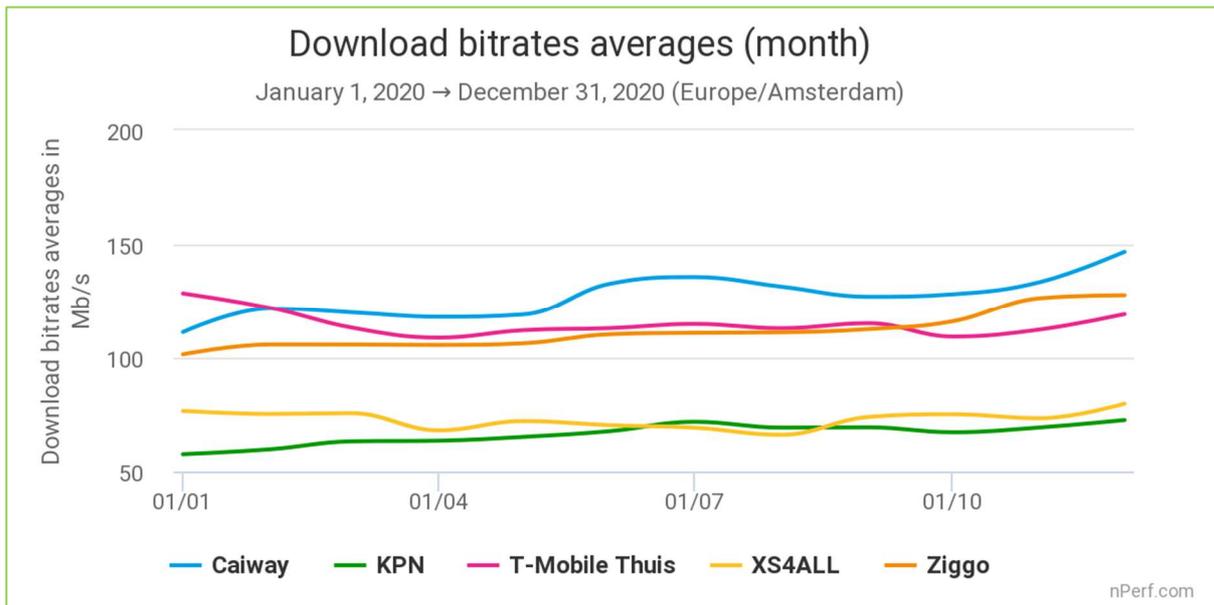
2.2 Download speed

In 2020, the average download speed in the Netherlands was 96 Mb/s.



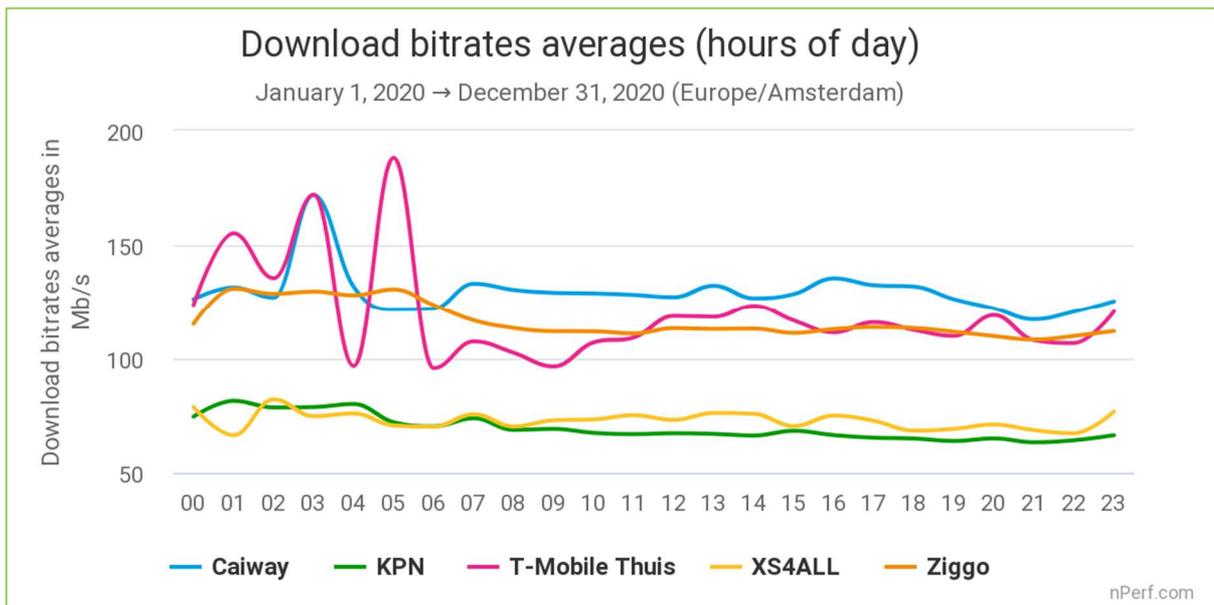
The highest value is the best.

Caiway has provided the best fixed download speed during 2020.



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).

Globally, all ISPs have provided constant download speeds over the period except in the last quarter when Caiway and Ziggo have accelerated their speed.

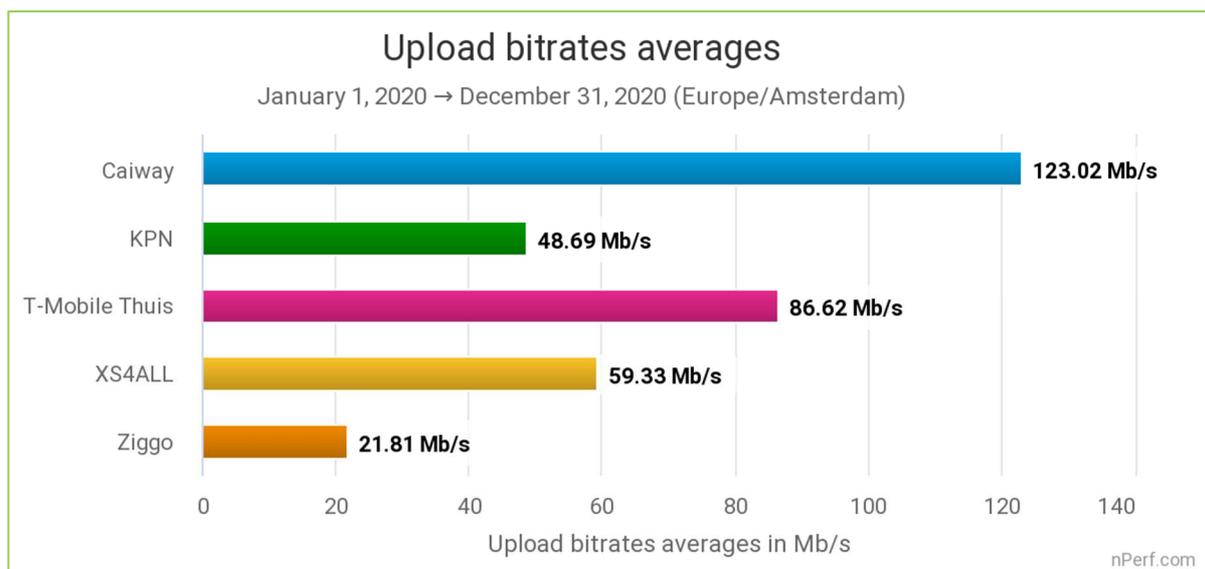


This graph illustrates the ability of providers to ensure a constant download speed during the day, regardless of network load (number of connected end-users).

We note that there is no significant decline of the throughput during the busy hours; this is a good performance from the ISPs.

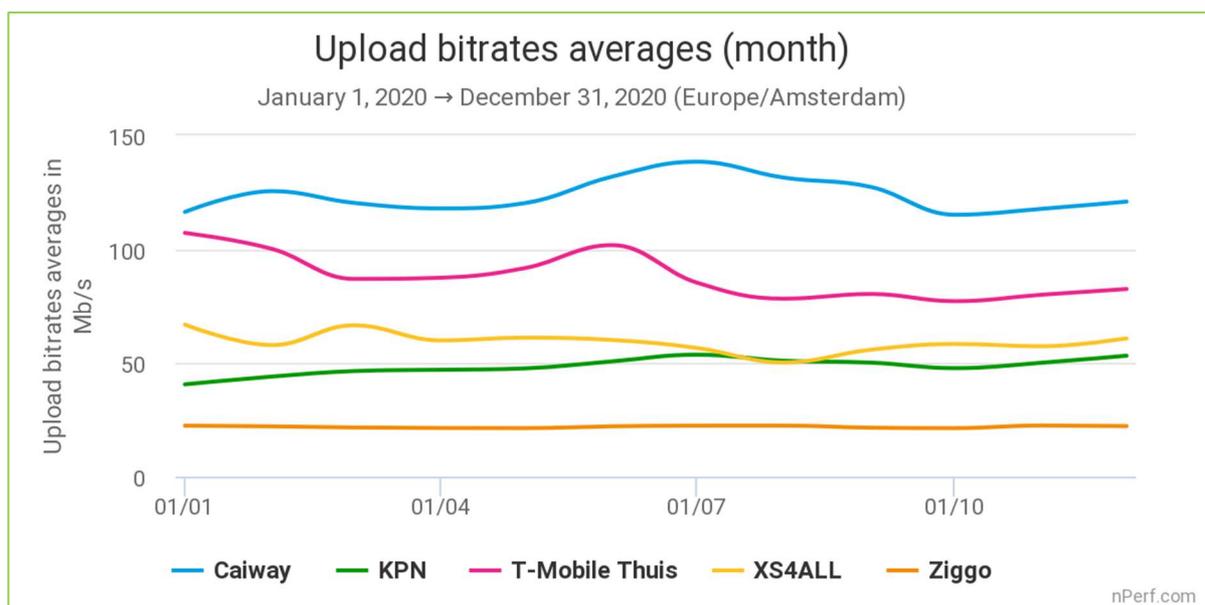
2.3 Upload speed

In 2020, the average upload speed in the Netherlands was 45 Mb/s.



The highest value is the best.

Caiway has provided the best fixed upload speed during 2020.



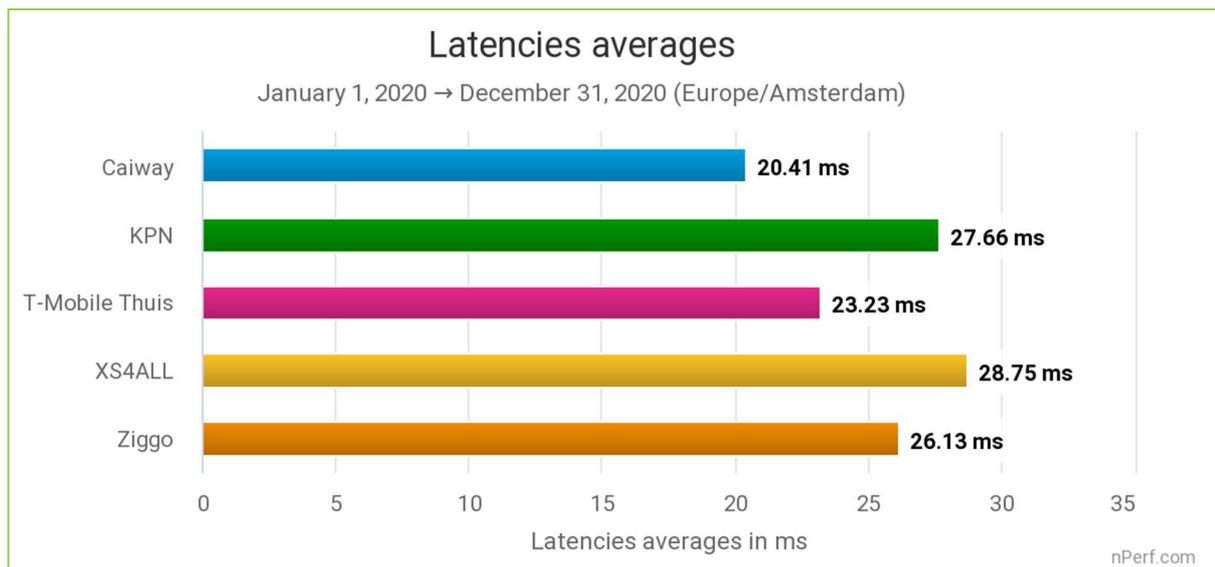
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Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected end-users).

Globally, all ISPs have provided constant upload speeds during 2020.

2.4 Latency

In 2020, the average latency in the Netherlands was 26 ms.



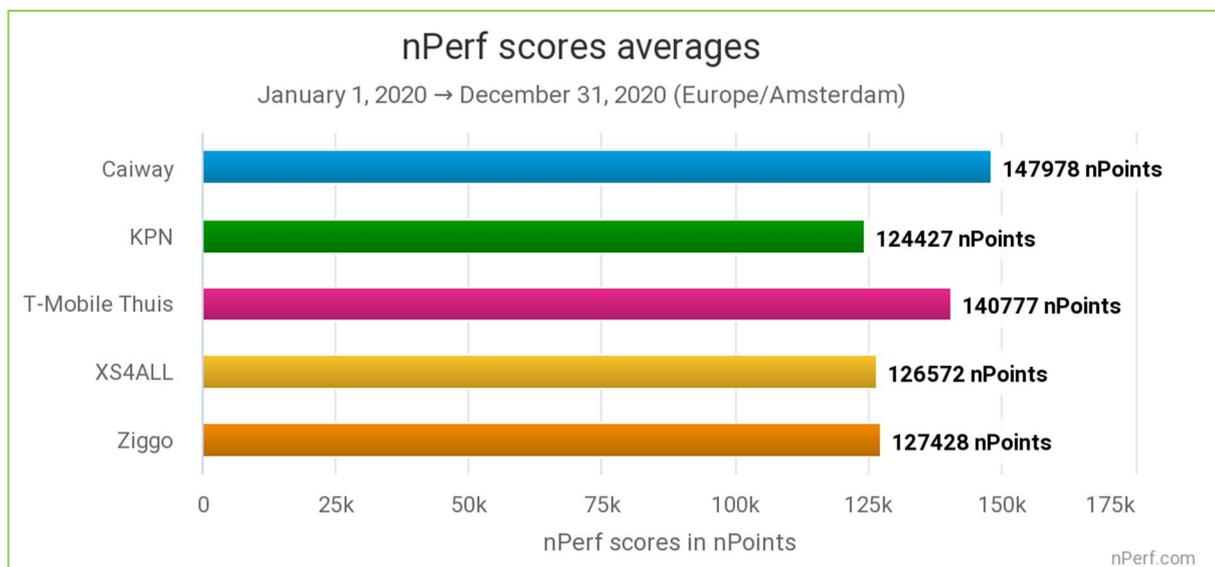
The lowest value is the best.

Caiway has provided the best fixed latency during 2020.

2.5 nPerf score

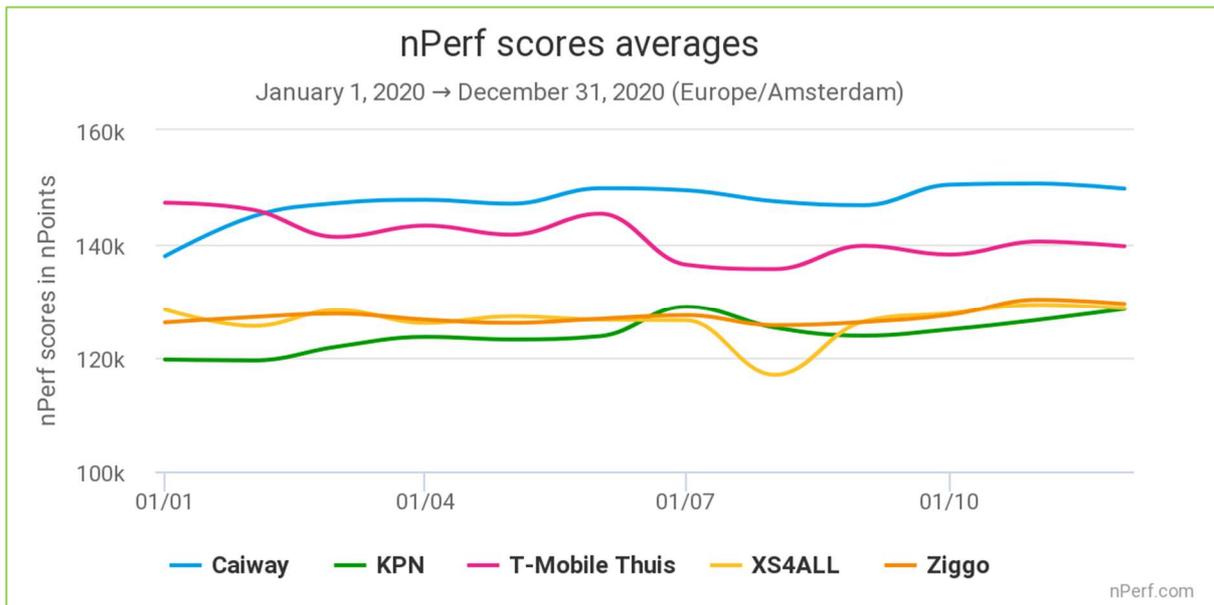
The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

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



The highest value is the best.

Caiway, the best fixed Internet performance in 2020.



Caiway has shown in 2020 steady improvement in its performance in fixed Internet.

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 in the Netherlands 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 the Netherlands.

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 The Netherlands and abroad. [The Netherlands providers are welcome to install nPerf servers, that's free!](#)

The total bandwidth available in the Netherlands is greater than 10 Gb/s and that for the world is greater than 6 Tb/s with more than **1300** active nPerf servers!

3.3 Statistical accuracy

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

- ✓ 1% 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.

3.4 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) are also excluded from this barometer.

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.

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Stay in touch with us, follow us!

