

Barometer of fixed Internet connections in Norway



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H2 2018 – H1 2019



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1 Summary of results

1.1 Summary table and nPerf score, all technologies combined



Altibox subscribers enjoyed the best fixed Internet performance in the last two semesters.

1.2 Our analysis

From July the 1st 2018 to June the 30th 2019, nPerf users conducted 50.170 connection tests on Norway's five largest Internet Service Providers. Altibox dominates the market in terms of performance of fixed Internet connections by being the first on download and upload speed tests, and in second position on latency tests. 98 Mb/s is the average download speed of Norwegian people which is a very good performance.

Altibox is the fastest Internet Provider of the last 12 months.

During the last 12 months, Altibox has provided the fastest Internet connections on fixed networks in Norway. With an average download speed of 124 Mb/s, this ISP is far enough ahead of its competitors, indeed, the second one, Get, provided 109 Mb/s.

Eninvest, first on latency, a good news for gamers

Besides being the fastest provider on fixed networks, Altibox is one of the most reactive with a good latency of 22.7 ms, but Eninvest is the king of latency (less than 19 ms !) so if you are a gamer, choose Eninvest or Altibox.

Conclusion

On fixed networks, over the last two semesters, one provider clearly has made the difference, Altibox, with a download speed of 124 Mb/s. However, Altibox will have to keep a close watch on his rival Eninvest, which is fast approaching with rising performances for several months.

A beautiful battle in perspective for the next semesters !

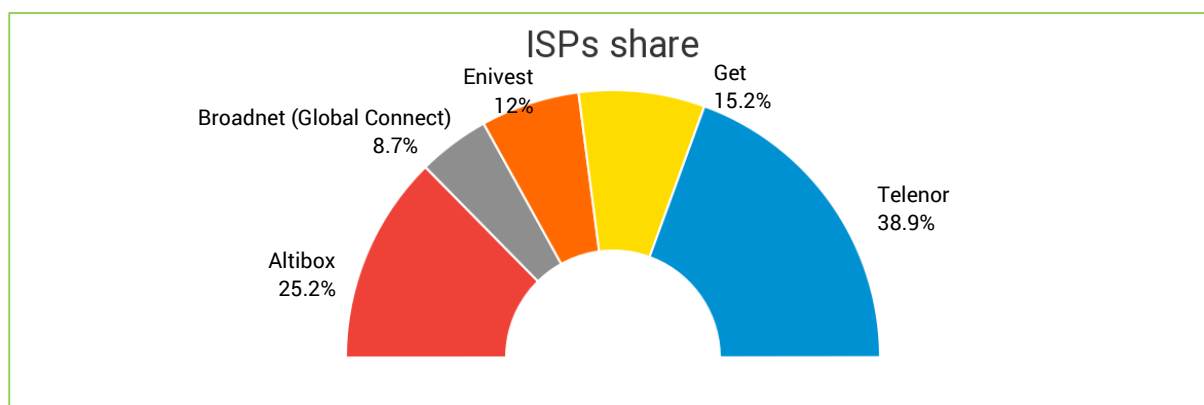
2 Overall results, all technologies combined

2.1 Data amount and distribution

From **July 1, 2018** to **June 30, 2019** we counted **50.170 tests**, distributed after filtering as follows:

Country	Tests
Norway	45.075

Breakdown of tests by provider

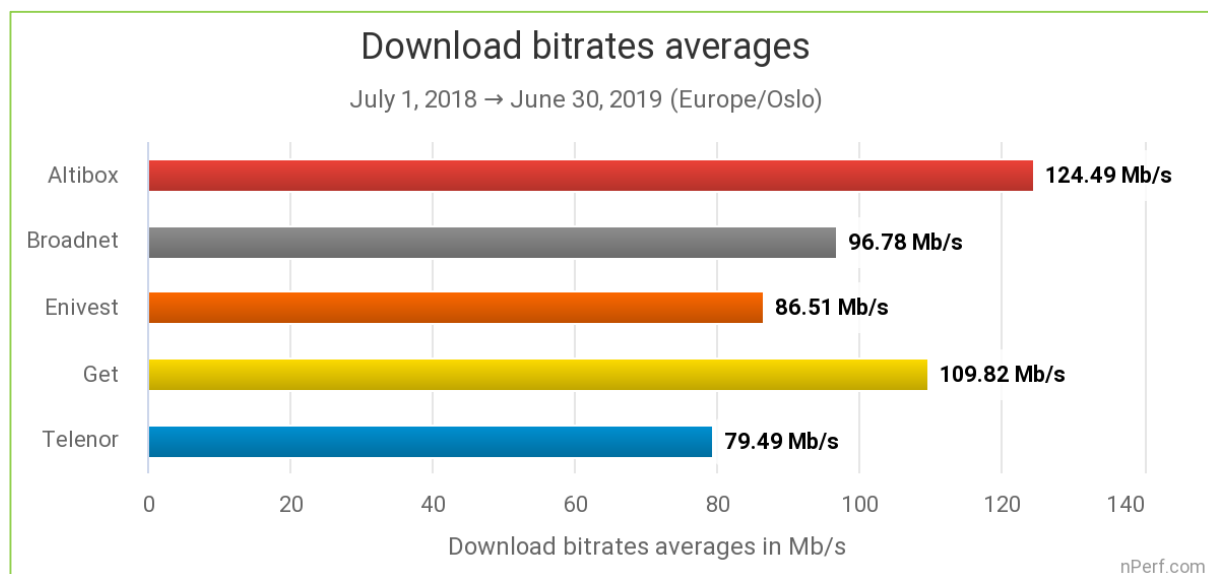


The largest number of speed tests have been carried out on the website of our partner in Norway:

<https://itavisen.no/speedometer/>

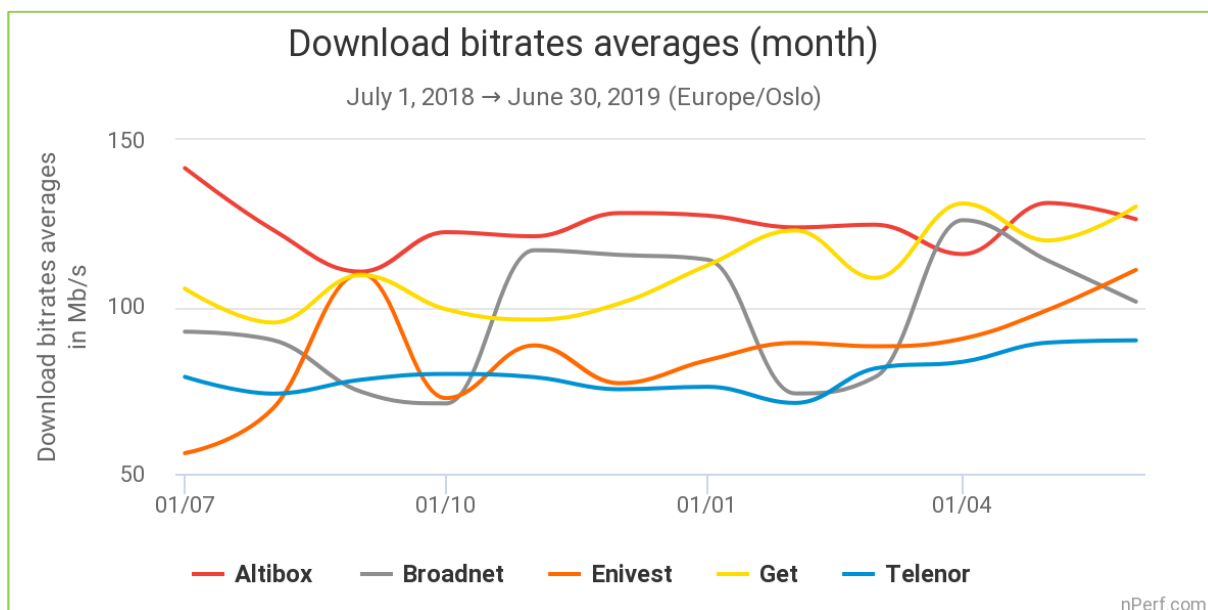
2.2 Download speed

In 2018-2019, the average download speed in Norway was 98 Mb/s.



The highest value is the best.

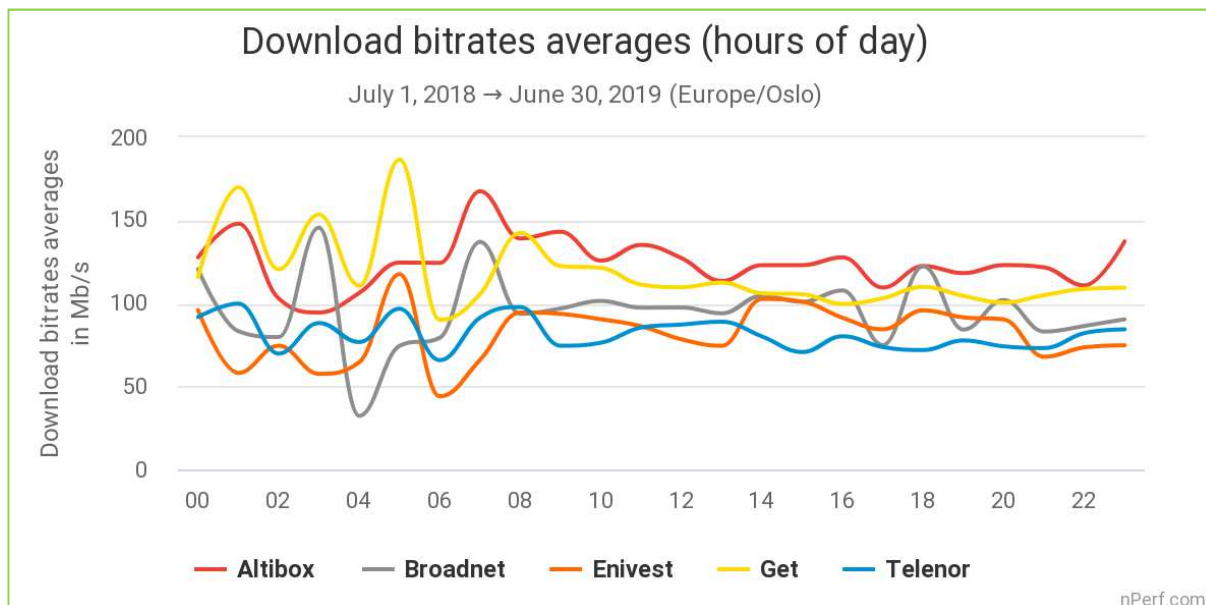
All technologies combined, **Altibox** subscribers benefited from the best fixed internet download speed in the last two semesters.



The highest value is the best.

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

Globally, all ISPs have slightly improved their performance over the past 12 months, but **Eninvest** has been the most advanced. **Get** also recorded a marked improvement and is catching up with **Altibox** in June, a trend to be checked at the end of the year.



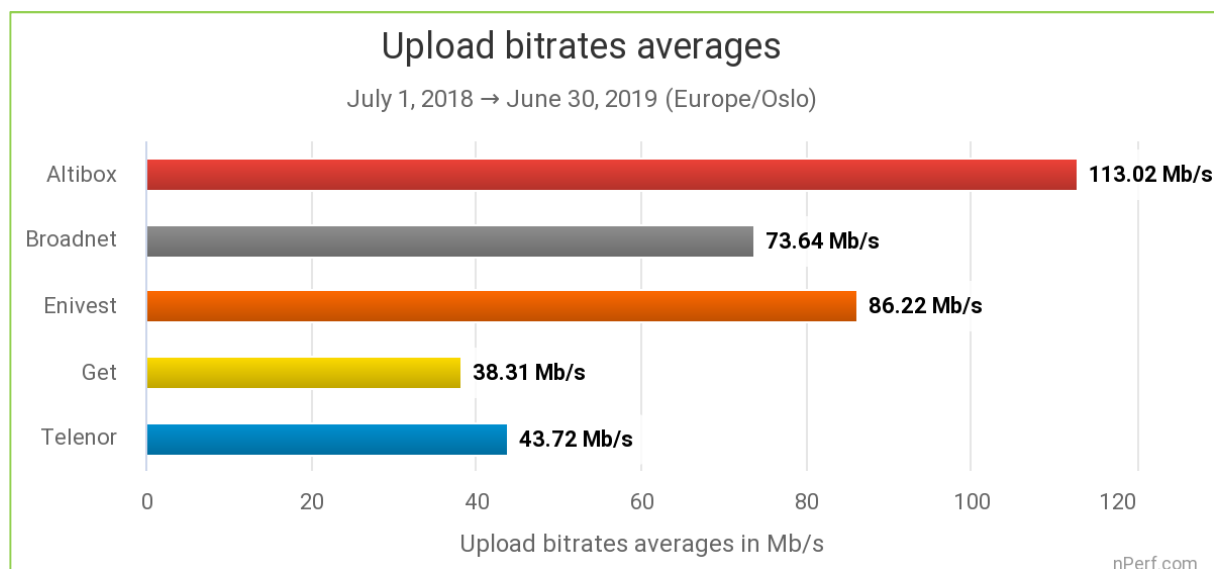
The highest value is the best.

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

We note that there is a decline of the throughput during the busy hours.

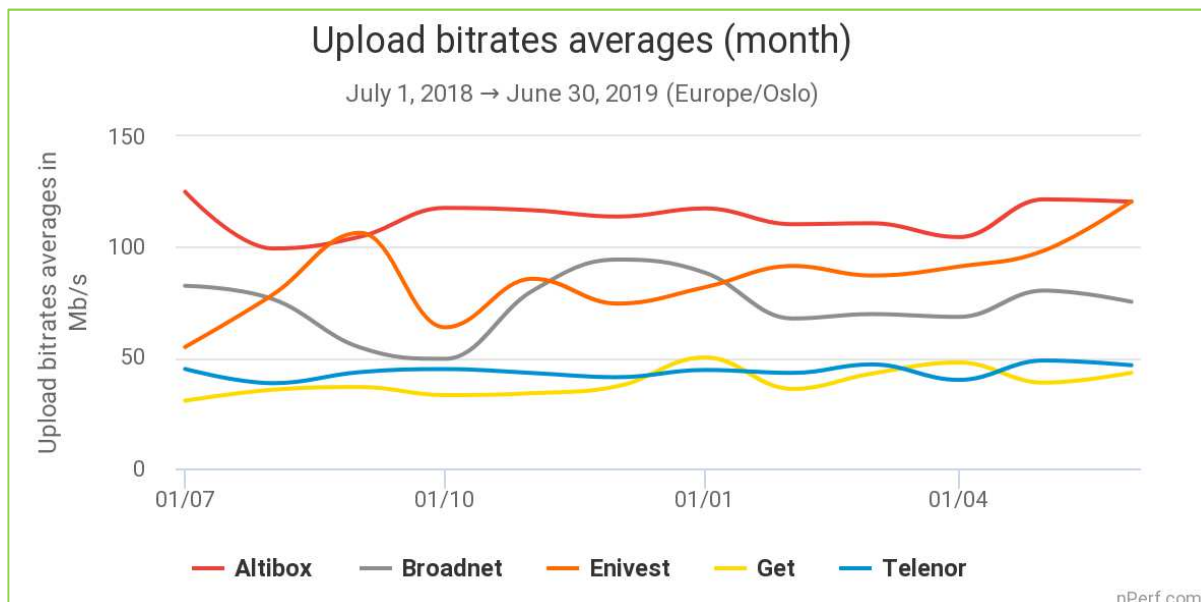
2.3 Upload speed

In 2018-2019, the average upload speed in Norway was 68 Mb/s.



The highest value is the best.

All technologies combined, **Altibox** subscribers benefited from the best fixed internet upload speed in the last two semesters.



The highest value is the best.

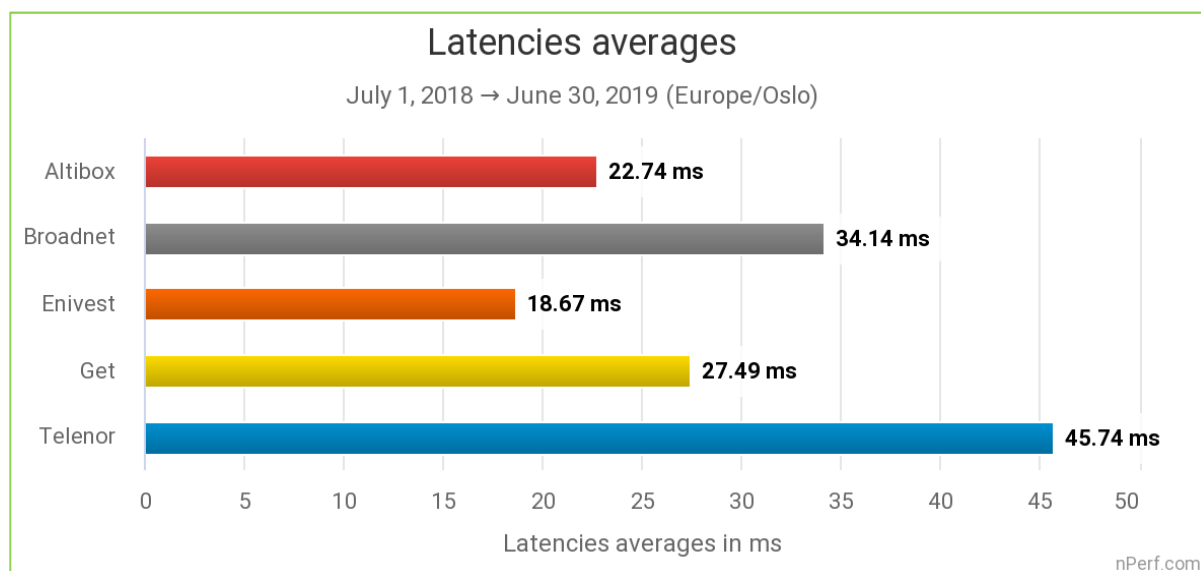
Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected clients).

Globally, all ISPs have been relatively stable over the last two semesters, except for one company, **Eninvest**, which has improved significantly.

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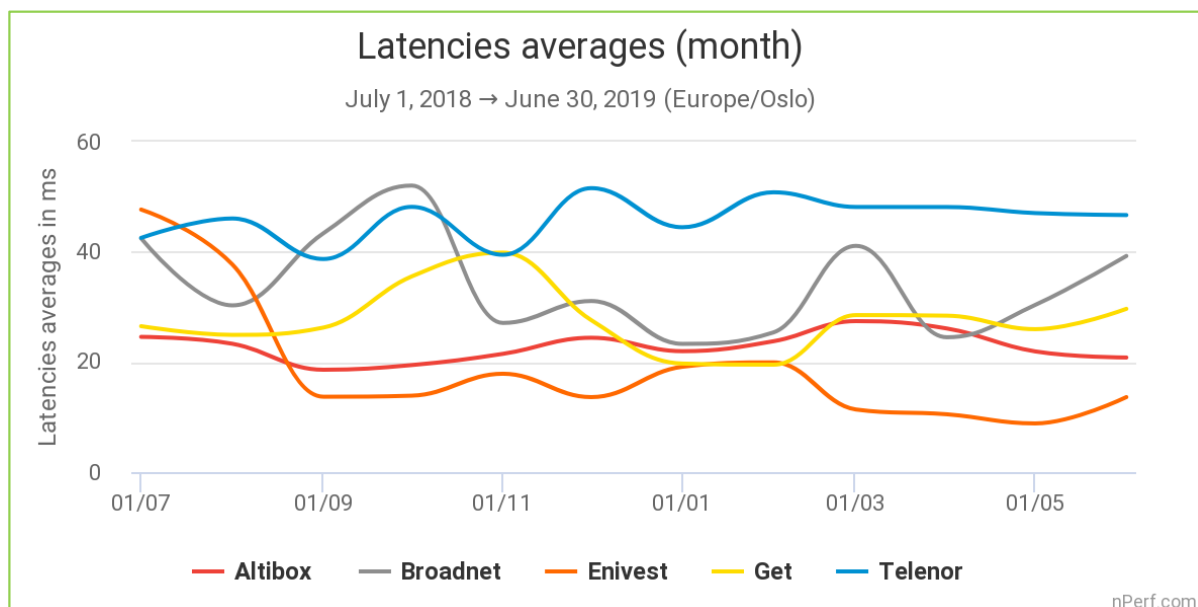
2.4 Latency

In 2018-2019, the average latency in Norway was 33 ms.



The lowest value is the best.

All technologies combined, **Eninvest** subscribers benefited from the best internet latency in the last two semesters.



The lowest value is the best.

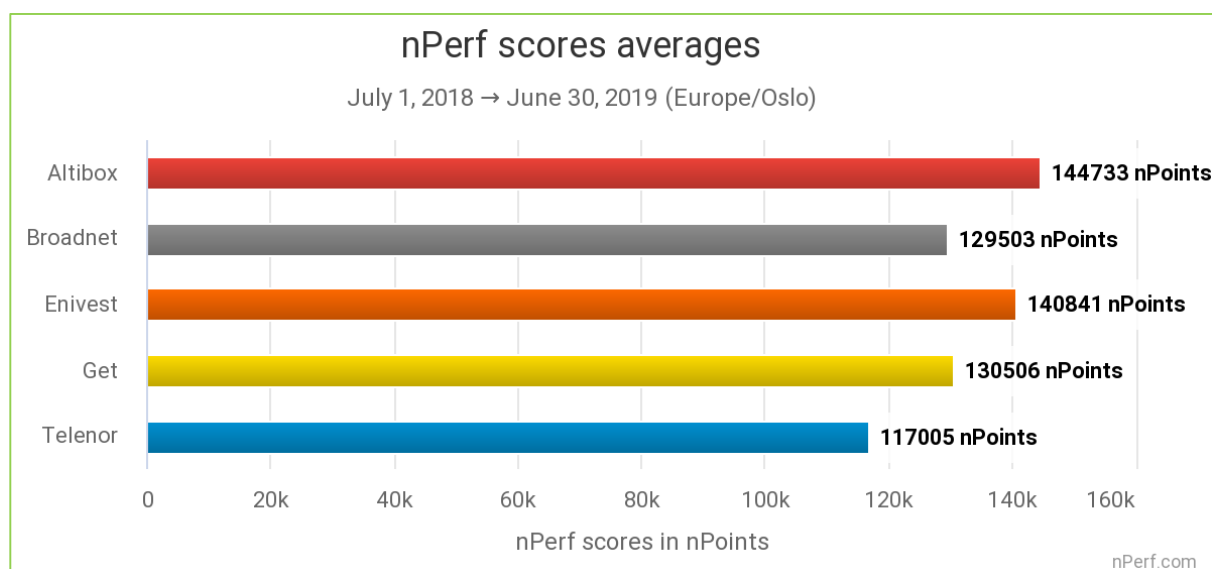
This graph illustrates the ability of providers to maintain a constant latency during the period, regardless of network load (number of connected clients).

Globally, all ISPs were relatively stable in their latency over the last two semesters except for one company, **Eninvest**, which has improved significantly.

2.5 nPerf score, all technologies combined

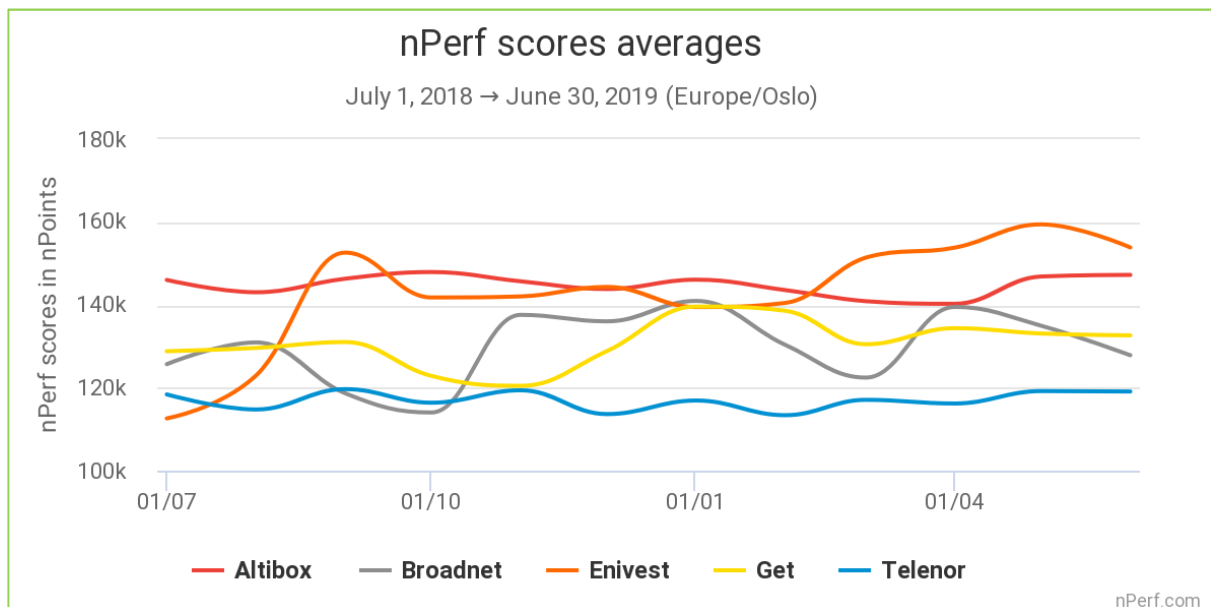
The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

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



The highest value is the best.

Altibox subscribers enjoyed the best fixed Internet performance in the last two semesters.



The highest value is the best.

Overall, all ISPs have been relatively stable over the last two semesters, with the exception of one company, Eninvest, which has significantly improved its score and achieved the best one since two months.

3 Methodology

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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 Norway.

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 Netherlands and abroad.

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

The total bandwidth available for the Netherlands is greater than **15 Gb/s**, and that for the world is greater than **3.5 Tb/s** with more than **900** active nPerf servers!

3.3 Statistical accuracy

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

- ✓ 2% 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) 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!

