Barometer of Fixed Internet Connections in the Czech Republic

2019 report

nperf
We qualify your connection

Web speed test

Test your ADSL, xDSL, cable, optical fiber or satellite broadband connection bandwidth.

NEW ! Create your nPerf user account & store all your results in history.

Create my account

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Mb/s
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Content

1 Summary of global annual results

1.1 Summary table and nPerf score, all technologies combined

nPerf barometer summary table 2019
Fixed Internet connections in Czech Republic

	Nej	O2	Poda	Starnet	T-Mobile	UPC	Vodafone
Download bitrate	45.47 Mb/s	32.39 Mb/s	43.38 Mb/s	44.55 Mb/s	35.57 Mb/s	**81.76 Mb/s**	29.32 Mb/s
Upload bitrate	31.45 Mb/s	6.11 Mb/s	19.89 Mb/s	**37.79 Mb/s**	14.21 Mb/s	16.70 Mb/s	9.07 Mb/s
Latency	29.54 ms	35.50 ms	31.57 ms	**26.40 ms**	36.19 ms	30.66 ms	43.11 ms
nPerf Score	113 679 nPoints	92 058 nPoints	108 069 nPoints	★ 116 995 nPoints	99 736 nPoints	★ 117 224 nPoints	90 015 nPoints

Best fixed Internet performance in 2019

Based on the nPerf score which takes into account the upload and download bitrates as well as the latency, all technologies combined.

* **UPC and Starnet,** the best fixed Internet performances 2019 *

1.2 Our analysis

In 2019, nPerf users carried out **102,161 tests** of fixed internet connections in the Czech Republic on the seven largest ISPs in the country.

The Czech population was able to benefit from an average download speed of 46 Mb/s and upload speed of 15 Mb/s.

In 2019, **UPC** dominates the market in terms of download speeds of fixed Internet connections while **Starnet** provides the best upload speeds and the best latency of the country.

Nej, still in second position on each of the performance indicators, is not far behind the two leaders, even if we can relativize its results because Nej only represents less than 6% of our tests which means that its network is still little used. For comparison, the tests performed on **UPC**, joint winner with **Starnet** in our ranking, represent 22% of the overall volume, so it is a very good score for UPC too.

UPC was well underway in the middle of the year but fell in the second half due to its latency while **Starnet** and **Nej** maintained their good performances. As a result, at the end of the year, the scores of these three ISPs come very close.
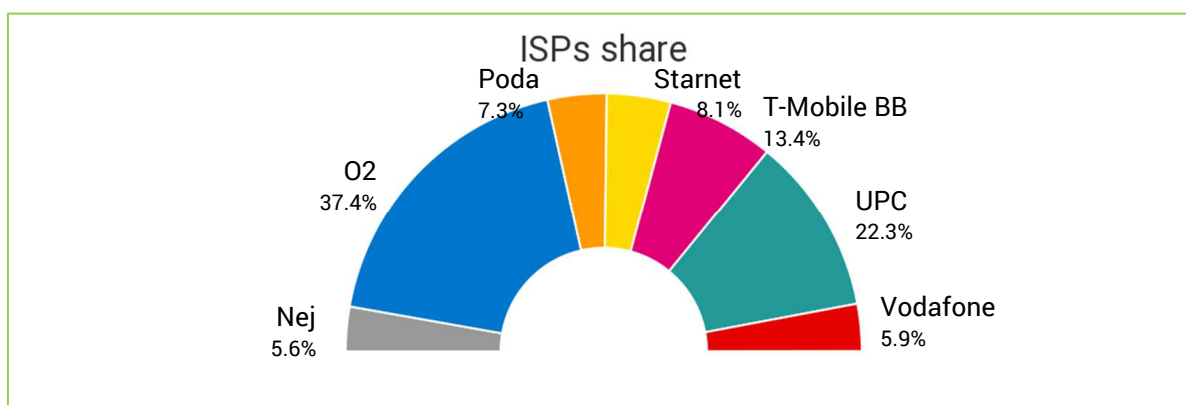
A great battle in perspective for 2020!

2 Overall results, all technologies combined

2.1 Data amount and distribution

From January 1, 2019 to December 31, 2019 we counted 102,161 tests, distributed after filtering as follows:
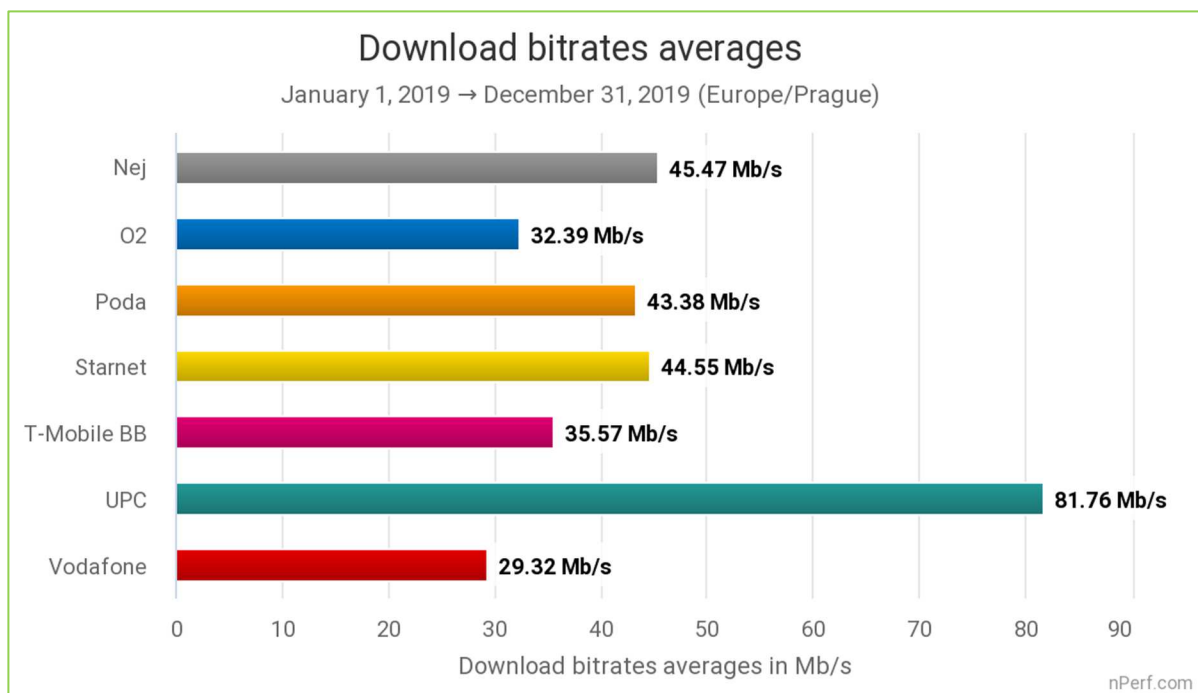
Country	Tests
Czech Republic	**84,934**

Breakdown of tests by provider

ISPs share

Poda 7.3%
Starnet 8.1%
T-Mobile BB 13.4%
O2 37.4%
UPC 22.3%
Nej 5.6%
Vodafone 5.9%

2.2 Download speed

In 2019, the average download speed in Czech Republic was 46 Mb/s.

Download bitrates averages
January 1, 2019 → December 31, 2019 (Europe/Prague)

Nej	45.47 Mb/s
O2	32.39 Mb/s
Poda	43.38 Mb/s
Starnet	44.55 Mb/s
T-Mobile BB	35.57 Mb/s
UPC	81.76 Mb/s
Vodafone	29.32 Mb/s

Download bitrates averages in Mb/s

nPerf.com

The highest value is the best.

UPC has provided the best fixed download speed during 2019.

Download bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Prague)
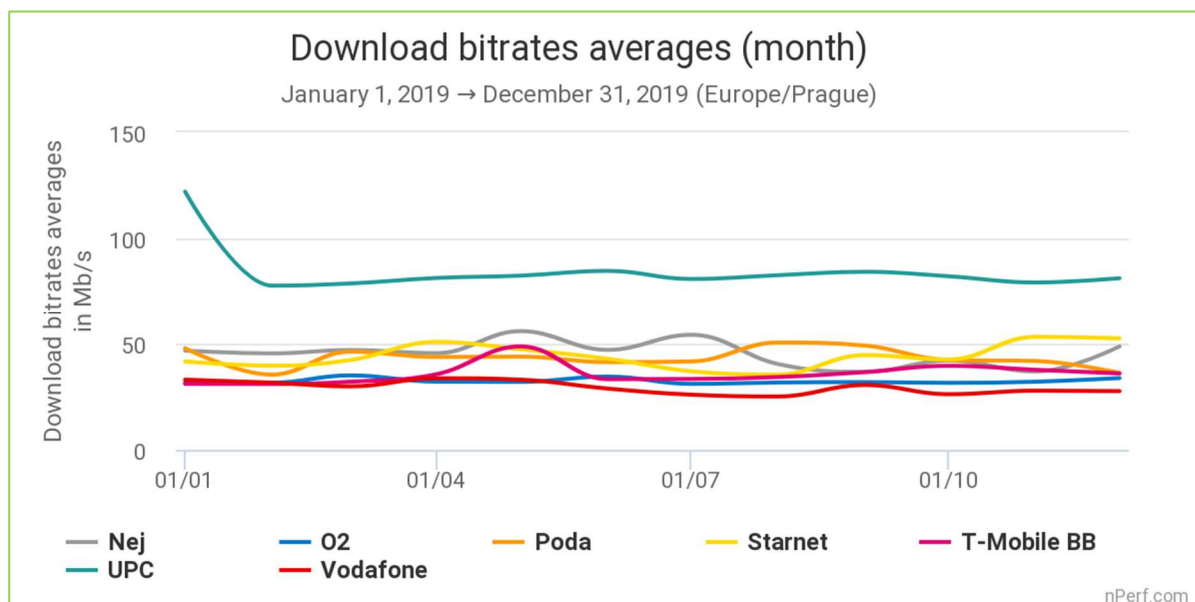
Above graph illustrates the ability of providers to maintain a constant download speed over the period regardless of network load (number of connected end-users). All ISPs have provided stable download speeds in 2019 with UPC far ahead from its competitors.

Download bitrates averages (hours of day)
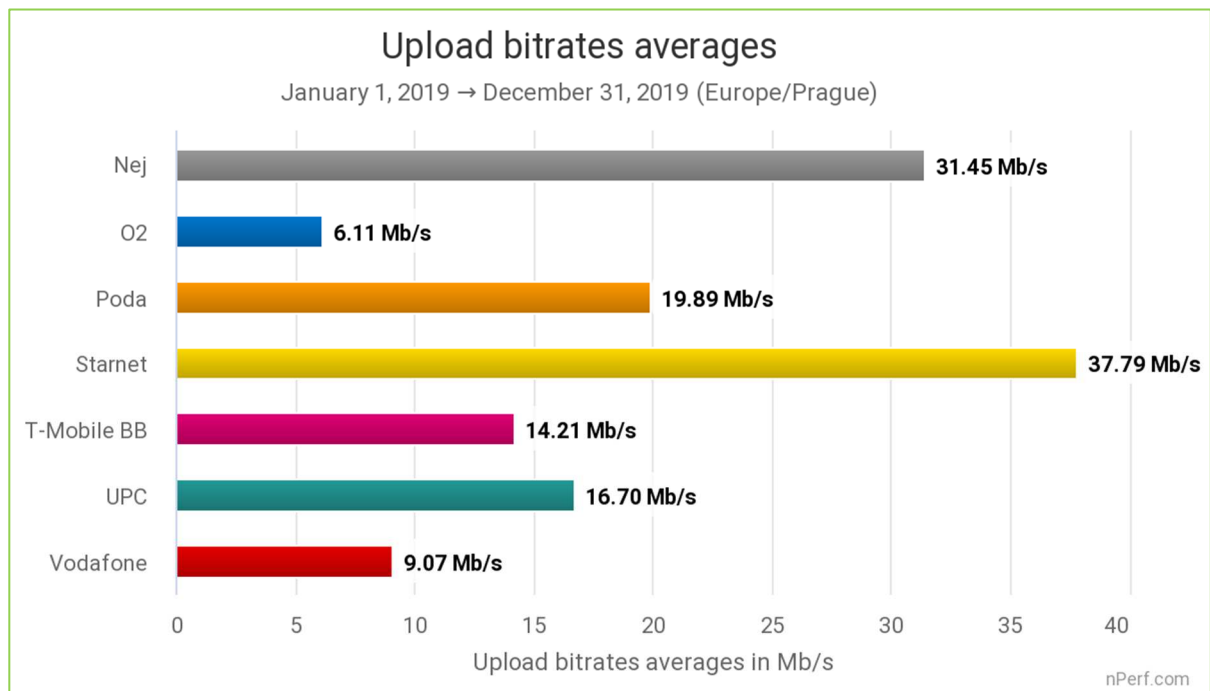### January 1, 2019 → December 31, 2019 (Europe/Prague)
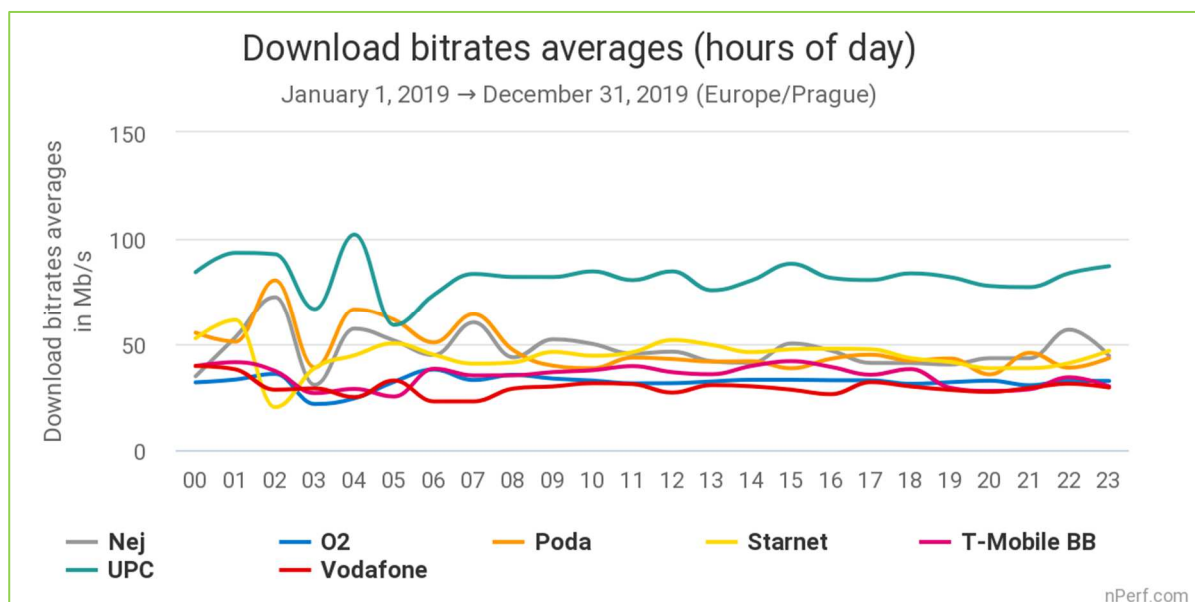
This graph illustrates the ability of providers to ensure a constant download speed throughout the day, regardless of network load (number of connected end-users).

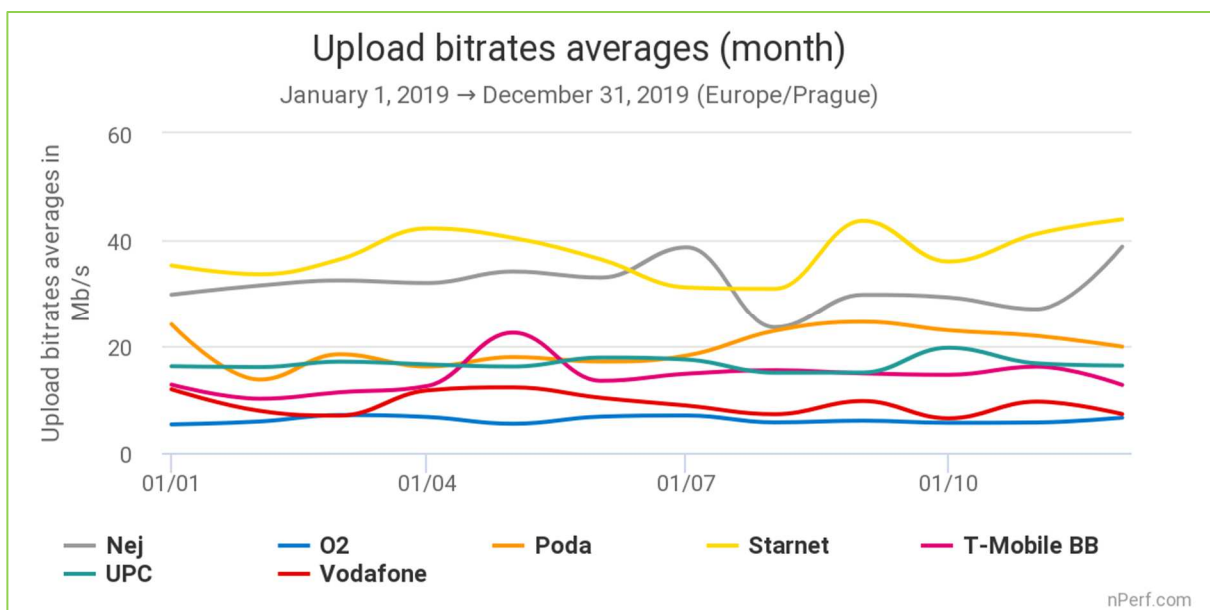We note that there is no decline of the troughput during the busy hours.

2.3 Upload speed

In 2019, the average upload speed in Czech Republic was 15 Mb/s.

Upload bitrates averages
January 1, 2019 → December 31, 2019 (Europe/Prague)

Provider	Upload bitrates averages in Mb/s
Nej	31.45 Mb/s
O2	6.11 Mb/s
Poda	19.89 Mb/s
Starnet	37.79 Mb/s
T-Mobile BB	14.21 Mb/s
UPC	16.70 Mb/s
Vodafone	9.07 Mb/s

nPerf.com

The highest value is the best.

Starnet has provided the best fixed upload speed during 2019.

Upload bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Prague)

Legend: Nej, O2, Poda, Starnet, T-Mobile BB, UPC, Vodafone

nPerf.com

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).

Starnet stays in the lead throughout the year even if Nej tries to catch up the number 1.
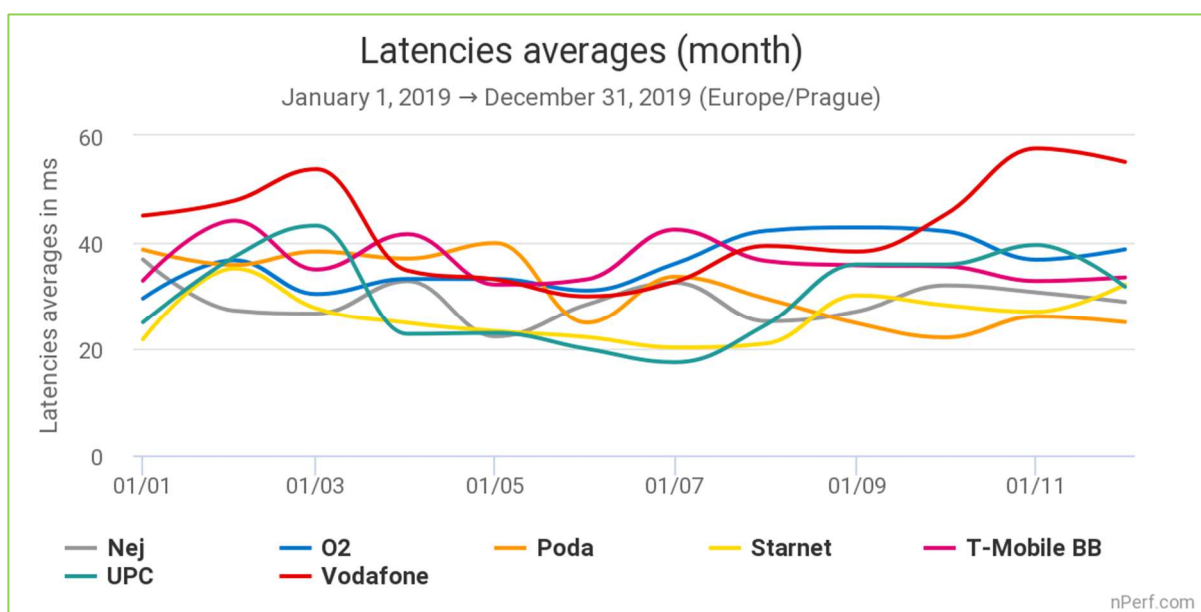
2.4 Latency

In 2019, the average latency in Czech Republic was 34 ms.
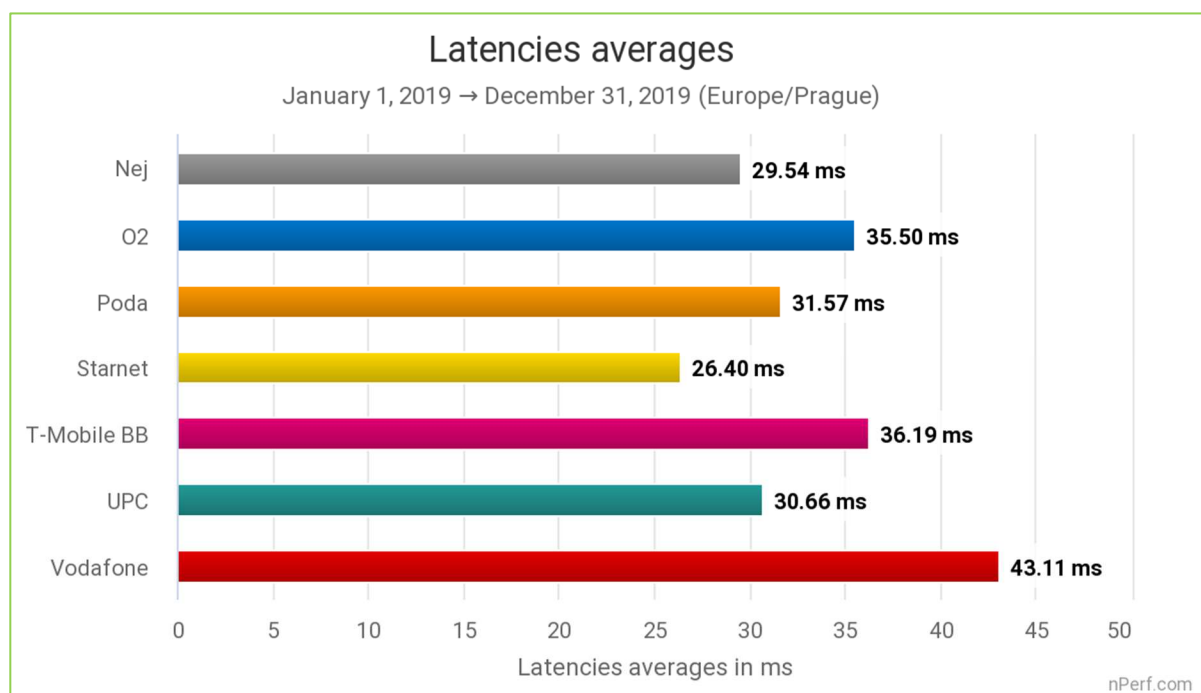
The lowest value is the best.

**Starnet 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 end-users).

We note that most of the ISPs have provided quite unstable latencies during the year 2019.

## 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.
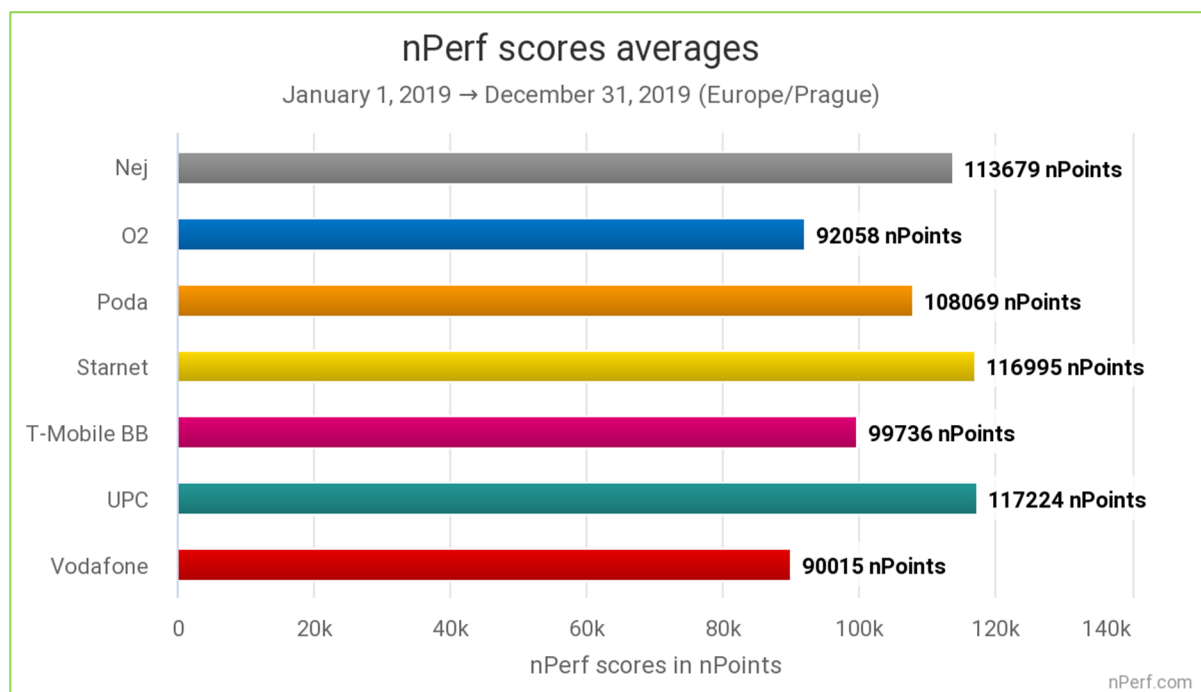
The highest value is the best.

UPC and Starnet, the best fixed Internet performances 2019.
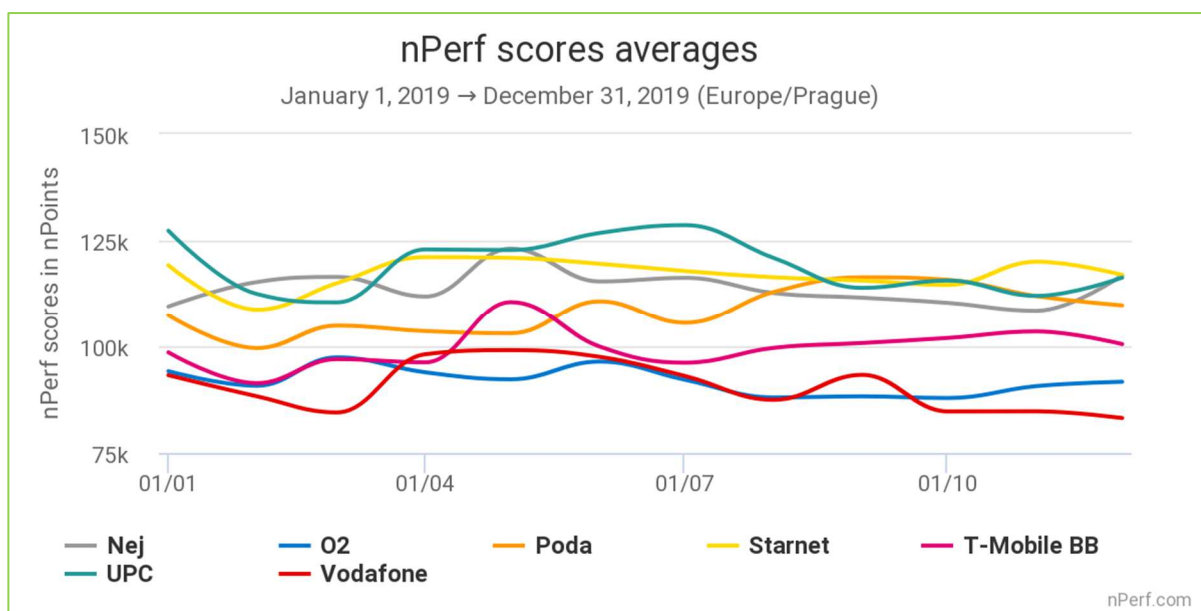
UPC was well underway in the middle of the year but fell in the second half due to its latency while Starnet and Nej maintained their good performances. As a result, at the end of the year, the scores of these three ISPs come very close.

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 Czech Republic.

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 Czech Republic and abroad.

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

The total bandwidth available for Czech Republic is greater than 10 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.

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Stay in touch with us, follow us!