

Barometer of fixed Internet connections in Russia

2021 Report



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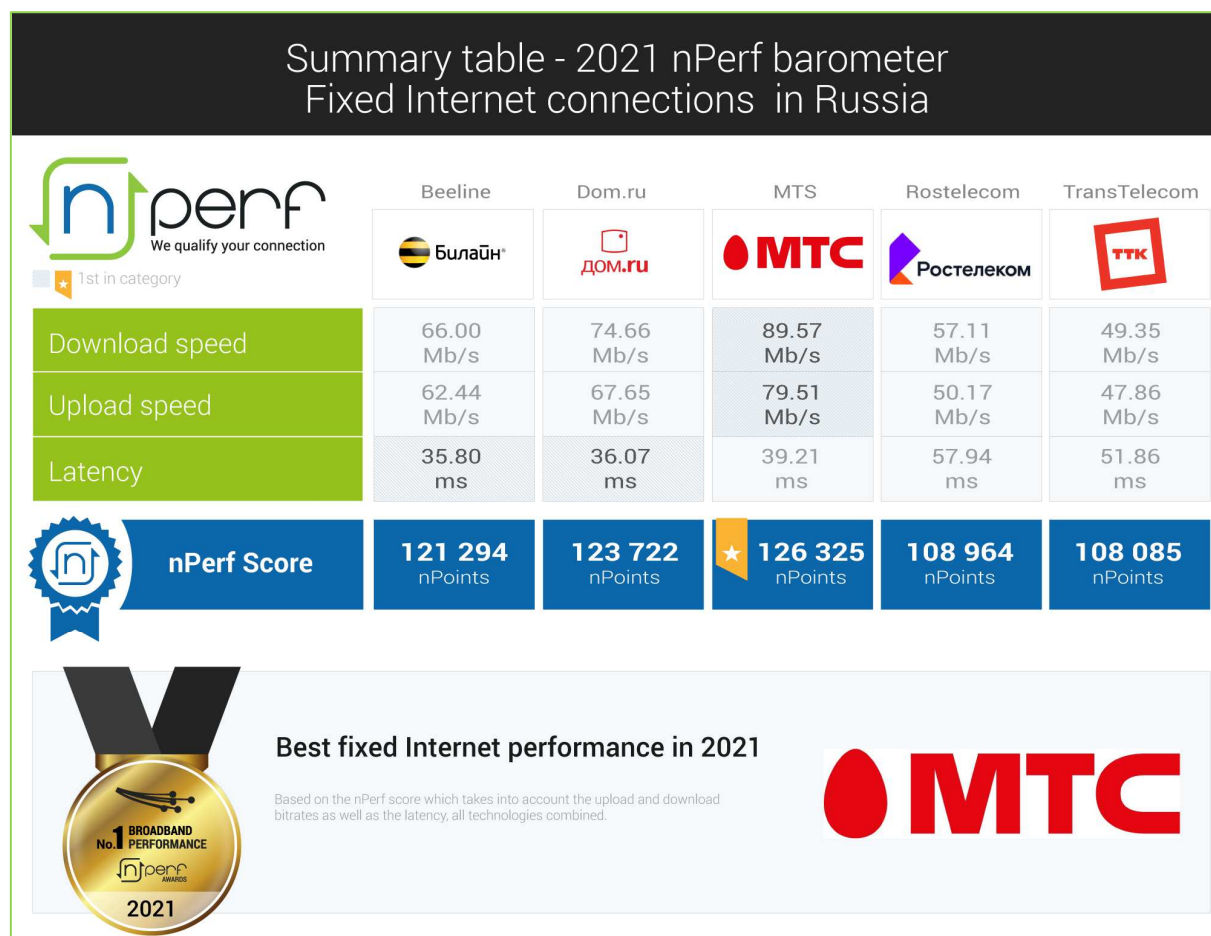


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1 Summary of global results

1.1 Summary table and nPerf score



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MTS provided, in 2021, the best fixed Internet performances in Russia.

1.2 Our analysis

In 2021, nPerf users performed 1 438 630 connection tests on the five largest fixed ISPs in Russia. After filtering, our survey is based on **1 256 525 relevant tests**.

MTS has provided the best fixed Internet performance in 2021, as its 126 325 nPoints show.

Even if the score gap with its closest competitors is not huge, MTS has managed to do much better than the previous years, by clearly leading on the download and upload bitrates, after the long domination of Dom.ru lately. When it comes to latency, it almost reaches the two champions but ends in the second position of our ranking.

Dom.ru finishes in second position this year, after leading the ranking for several years. By being second on the download and upload bitrates after MTS, but winner of the latency along with Beeline, this ISP has shown, nevertheless, to evolve a bit slower than its competitors. Its improvements on the bitrates are good, but it steps back on the latency : 5% worse than in 2020, meaning 1.7 ms slower, on average.

Behind, on the third position, comes **Beeline**, with the best latency of the year together with Dom.ru, and showing an average 15 Mb/s enhancement on its bitrates comparing to 2020.

Lastly, **Rostelecom** and **TTK** are in the two last positions, with a score gap going from 12.000 to 18.000 points from their competitors. They were unable to beat their opponents in any of the indicators taken into account. TransTeleCom is indeed in the last position for its very first appearance in our barometer.

Conclusion

On fixed networks, MTS manages to relinquish the leadership from Dom.ru, but still needs to improve if it wants to strengthen its first position in the months to come. May Dom.ru be able to retrieve its lost crown soon in fixed Russian Internet connections ?

Time will tell, but nPerf will definitely keep an eye on this issue the upcoming months.

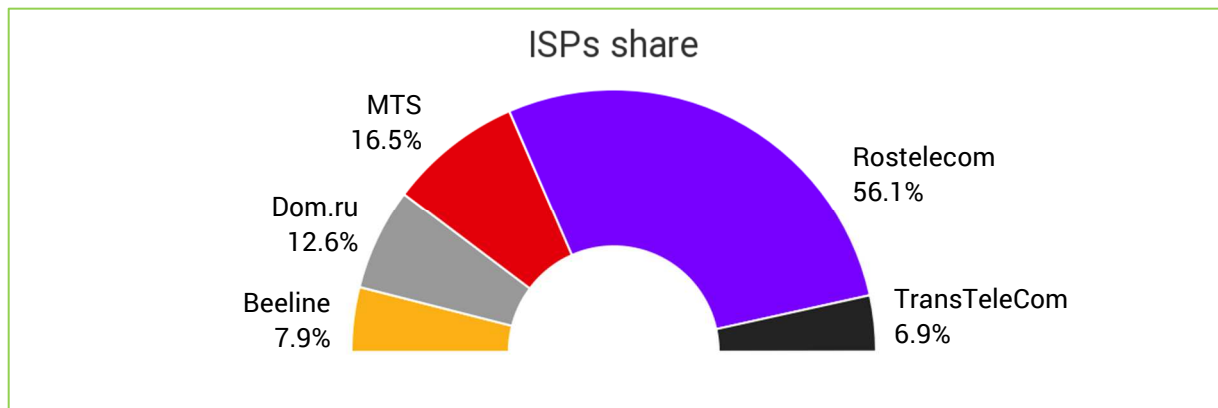
2 Results, all technologies combined

2.1 Data volume and distribution

From **January 1st, 2021** to **December 31st, 2021** we counted **1 438 630 tests**, distributed after filtering as follows (see § 5.4) :

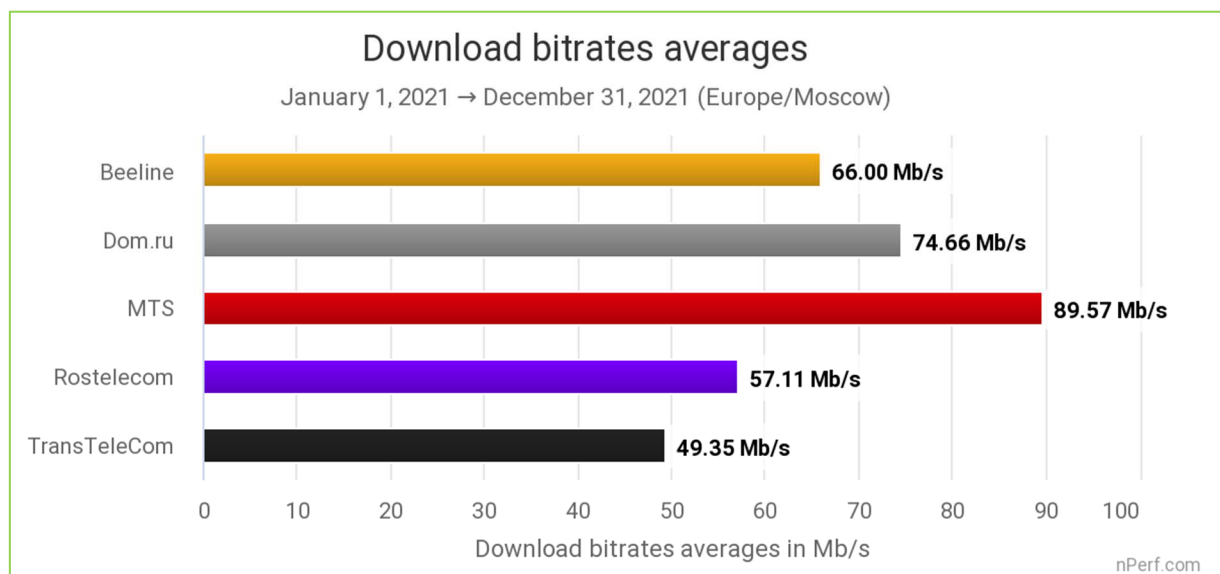
Country	Tests
Russia	1 256 525

The breakdown of tests by provider is as follows :



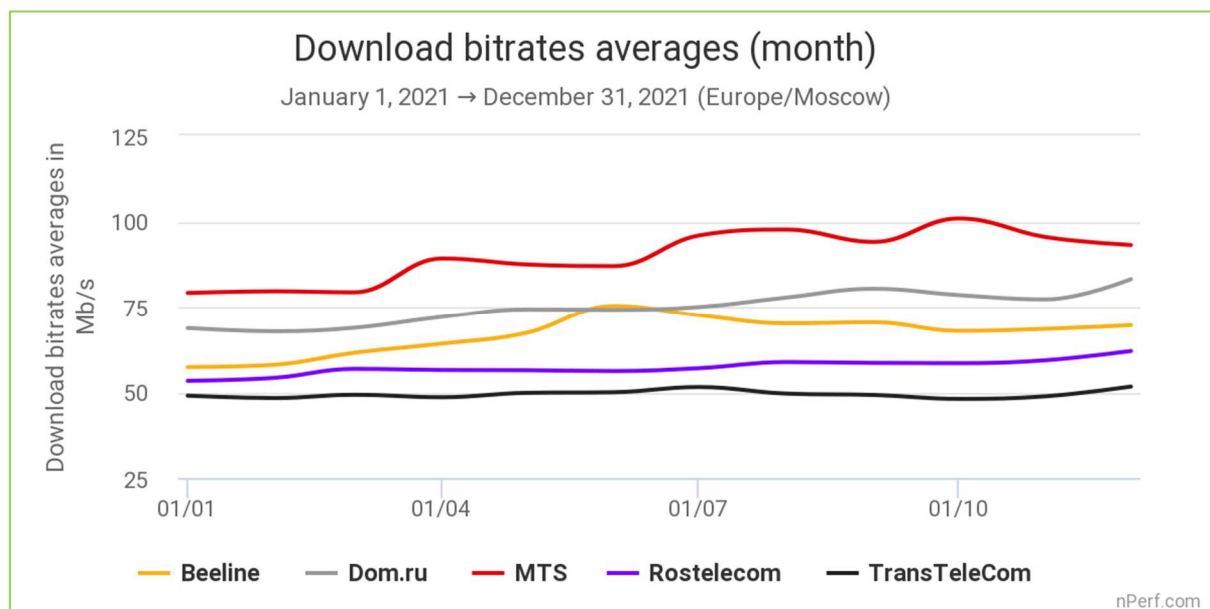
2.2 Download speed

In 2021, the average download speed in Russia was 65 Mb/s.



The highest value is the best.

MTS has provided the best fixed download speed during 2021.

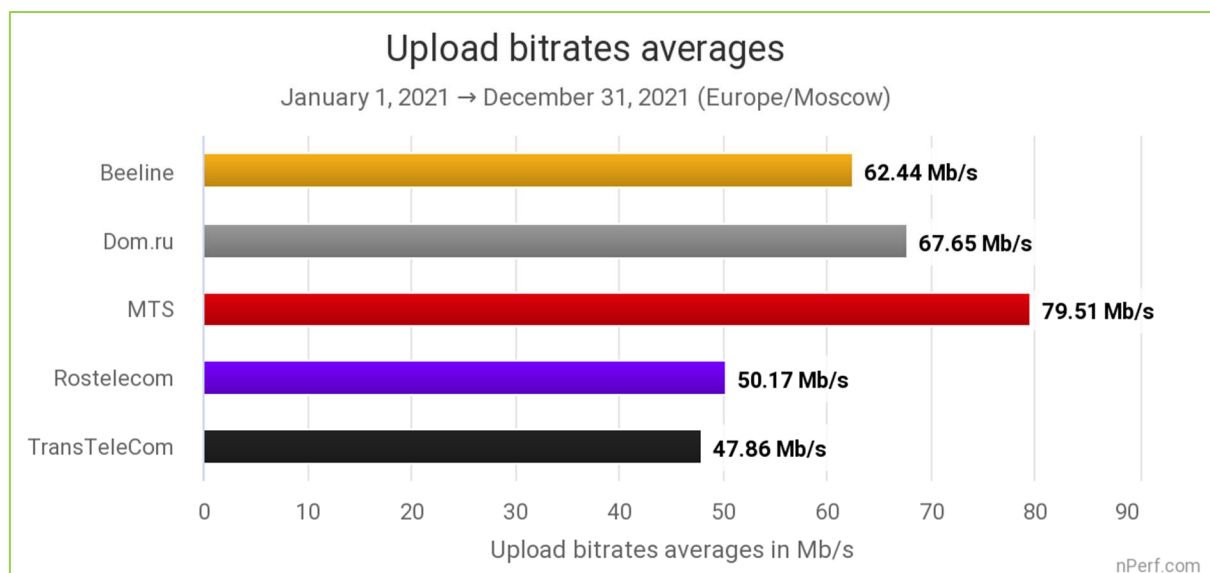


The above graph illustrates the ability of the providers to maintain a constant download speed over the period, regardless of the network load (number of connected end-users).

Comparing to 2020, the average download speed has increased around 31%, the strongest growth being for MTS (+37 Mb/s, meaning +72%). The trends across the year seem quite gradual, without any overtaking amongst these five ISPs.

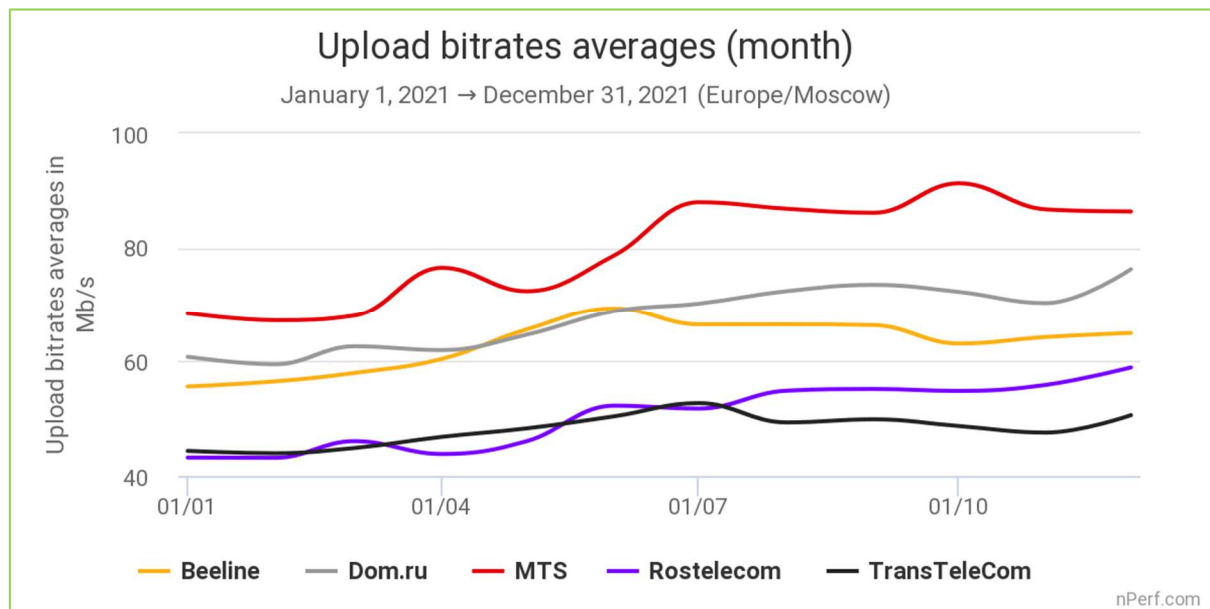
2.3 Upload speed

In 2021, the average upload speed in Russia was 58 Mb/s.



The highest value is the best.

MTS has provided the best fixed upload speed during 2021.



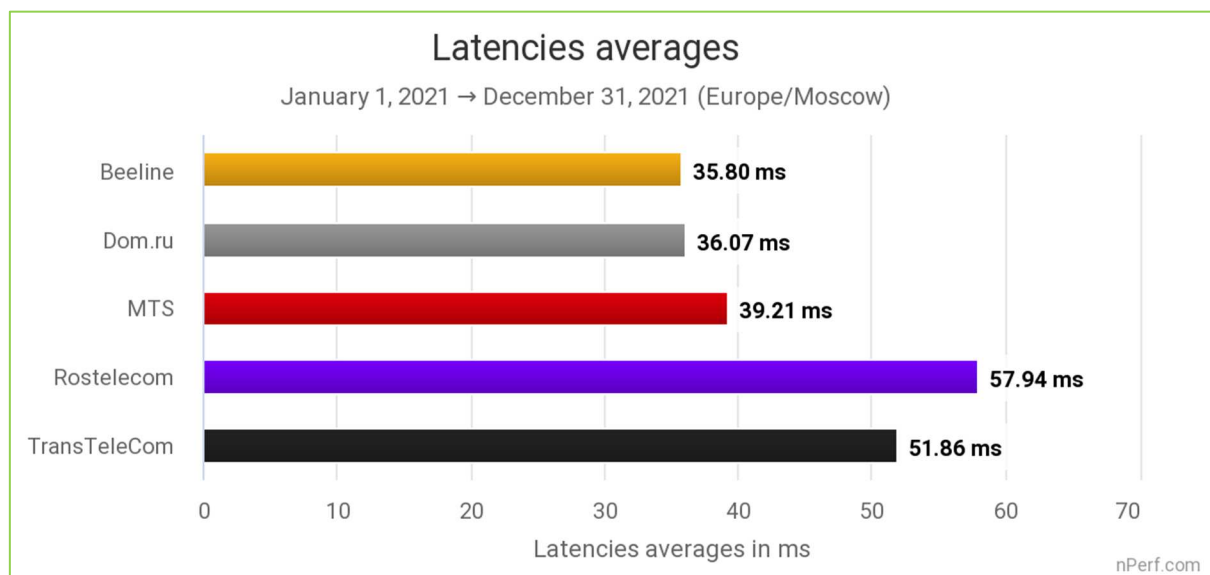
The highest value is the best.

Same comment than for the previous indicator. However we can clearly distinguish three different level of performances amongst these providers : on the first hand MTS dominates the rest, then come Dom.ru and Beeline, and finally Rostelecom and TransTeleCom appear in the last position.

Comparing to 2020, the average upload speed has increased around 31%, the strongest growth being again for MTS (+32 Mb/s, meaning +66%).

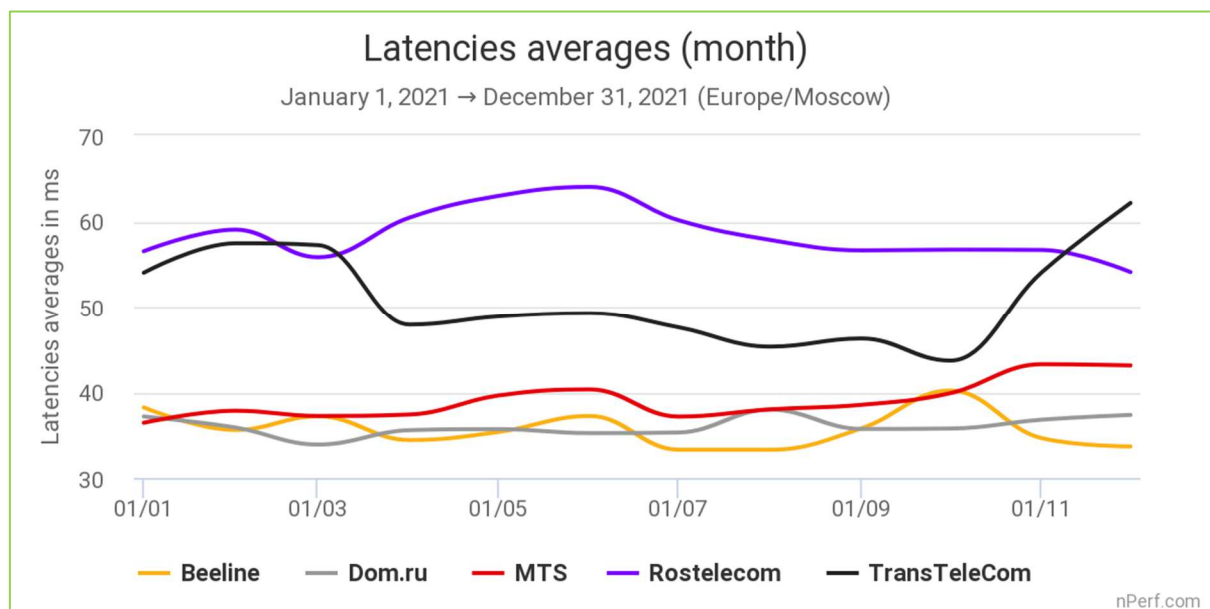
2.4 Latency

In 2021, the average latency in Russia was 50 ms.



The lowest value is the best.

Beeline and Dom.ru have provided the best fixed latencies during 2021.



The lowest value is the best.

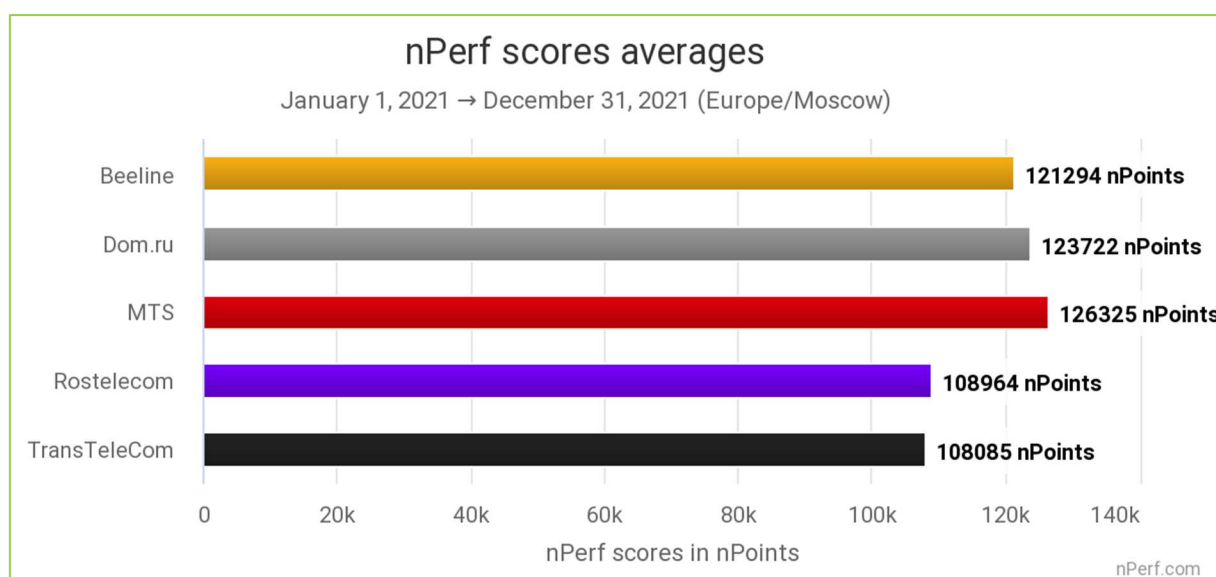
The above graph illustrates the ability of the providers to maintain a constant latency during the period, regardless of the network load (number of connected end-users).

We can appreciate the group of providers offering a low average latency : Beeline, Dom.ru win the race together this year (Beeline overtakes Dom.ru), and MTS who gets pretty close from them, after showing the best improvement from 2020 (16 ms, meaning 28%). The average enhancement, all ISPs combined, has been of approximately 5 ms from 2020 (9%). On the other hand, TTK and Rostelecom do much worse in this field and finish way below.

2.5 nPerf score, all technologies combined

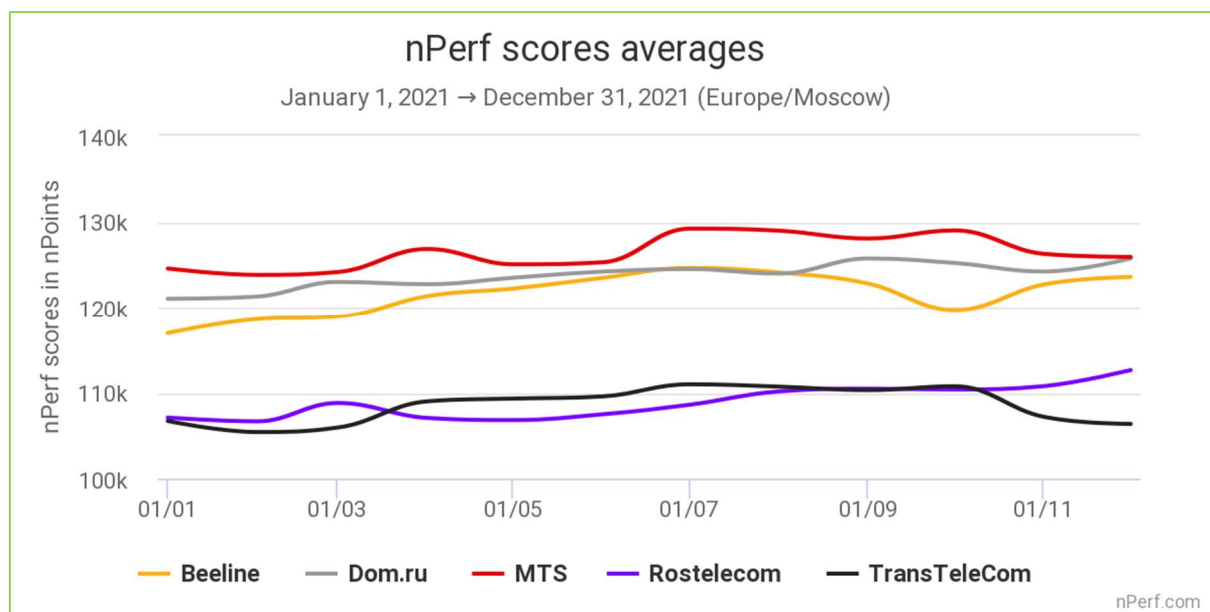
The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account the measured bitrates (2/3 Download + 1/3 Upload) and the latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

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



The highest value is the best.

MTS subscribers enjoyed the best fixed Internet performances in 2021.



MTS does not have a huge margin with its competitors, but has never been below their figures.

The fixed Internet performances of all ISPs have progressed throughout the year 2021, earning less than 8 000 points on average. The best progressions goes to MTS (+18 217 points), and the smallest to Dom.ru (+4 341 points). This can explain why MTS has taken away the last years' lead from Dom.ru in 2021.

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 Russia.

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 Russia and abroad. Indeed, nPerf has installed dedicated servers directly in some Russian providers' locals in order to maximize measurement reliability. All the providers are welcome [to install nPerf servers, that's free!](#)

The total bandwidth available in **Russia** is greater than **41 Gb/s**, and reaches **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	1 256 525	1 %	0.5 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.