

Barometer of fixed Internet connections in Thailand

2022 Report



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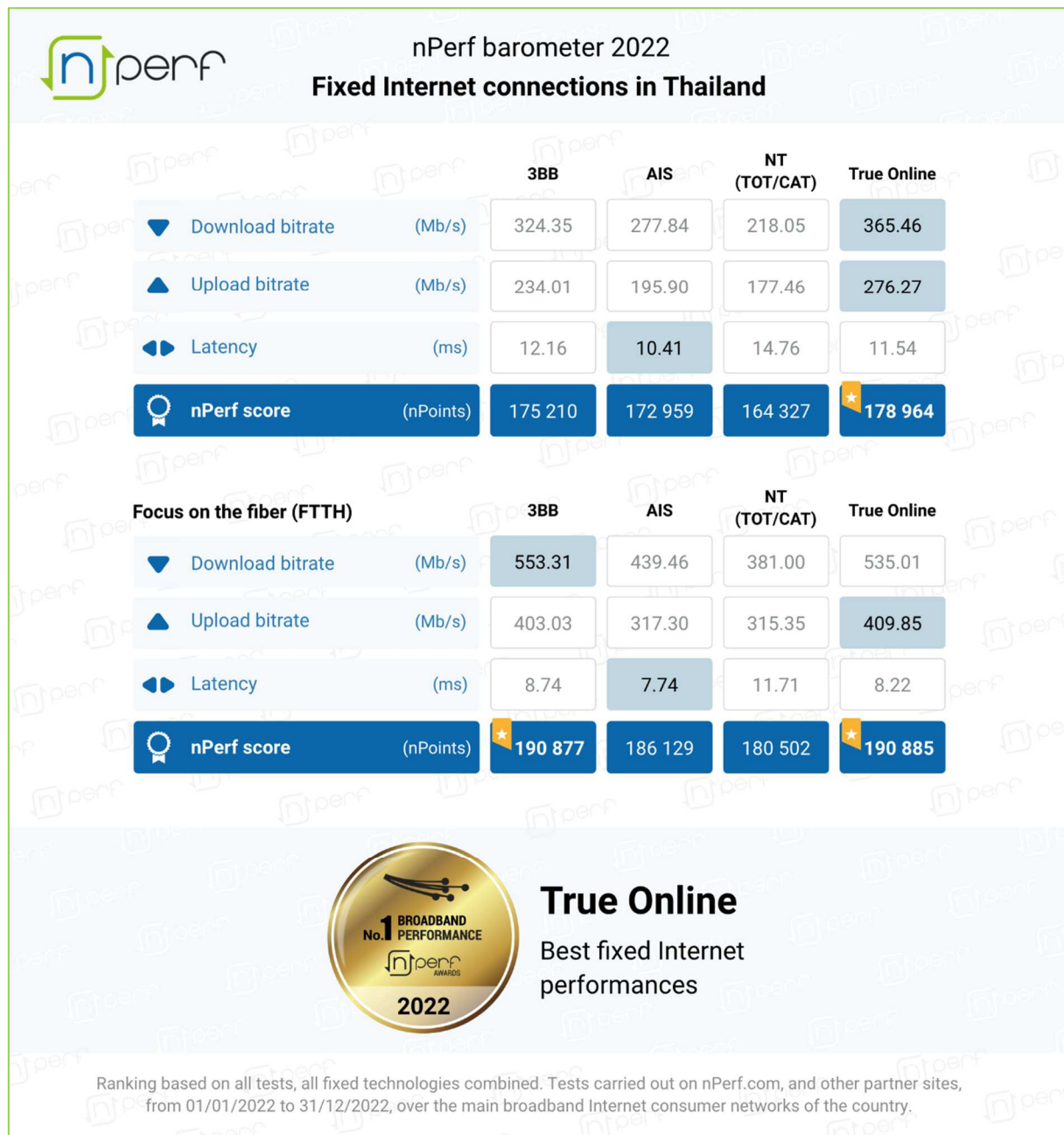


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1 Overall results

1.1 Summary table and nPerf score



True Online provided the best broadband Internet performances in Thailand in 2022.

1.2 Our analysis

This study is based on the tests carried out by users of the nPerf website. During the last year, users of the nPerf app in **Thailand** completed, after filtering, **7.070.396 tests**.

True Online is sacred champion of the Thailand broadband Internet.

In 2022 the download speed in this country grew by 8% and reached in average 309 Mb/s. The upload speed increased a bit faster (+11%), and settled around 230 Mb/s. These trends are very positive for the fixed Internet users in Thailand.

Thus, Thai ISPs played again in the big league in 2022, like some European ISPs, for example.

True Online wins the fixed Internet performances' race for the third year in a row.

True Online globally dominates the market, in terms of performances on fixed Internet connections. With the best progression on the download speed (+16%), True Online has provided the best download and upload speeds in the country and thus maintains its leading position.

3BB consolidates its second place and gets closer to the leader.

3BB still offers high download and upload speeds and then consolidates its second place.

AIS still in third position.

AIS, like the years before, would be a suitable network for satisfying the gamers by providing again the best latency of the country in 2022. However, its speeds are still not high enough to worry its competitors.

NT Pcl, always behind.

The merger of TOT and CAT Telecom in NT Pcl does not yet seem to bear fruit regarding the internet performance of the new player.

Concerning the FTTH, True Online and 3BB offered the best internet performances of the country to their subscribers.

In 2022, **56%** among the fixed tests were done on FTTH networks. It was 52% in 2021.

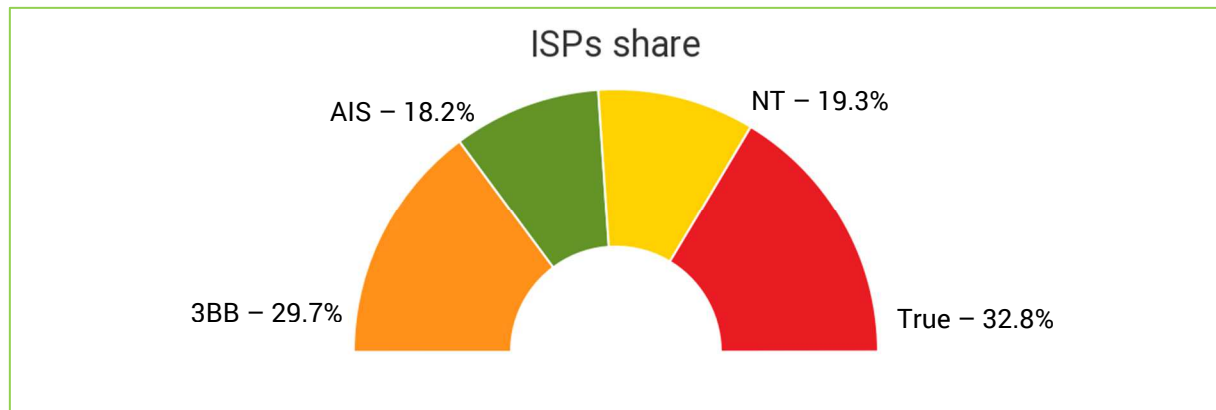
With the best yearly progressions on the download and upload speeds (+9% and +8%) True Online maintains its leading position on FTTH internet performances but is sharing this victory with 3BB who has provided the best FTTH download throughput with more than 550 Mb/s !

1 Results, all technologies combined

1.1 Data volume and distribution

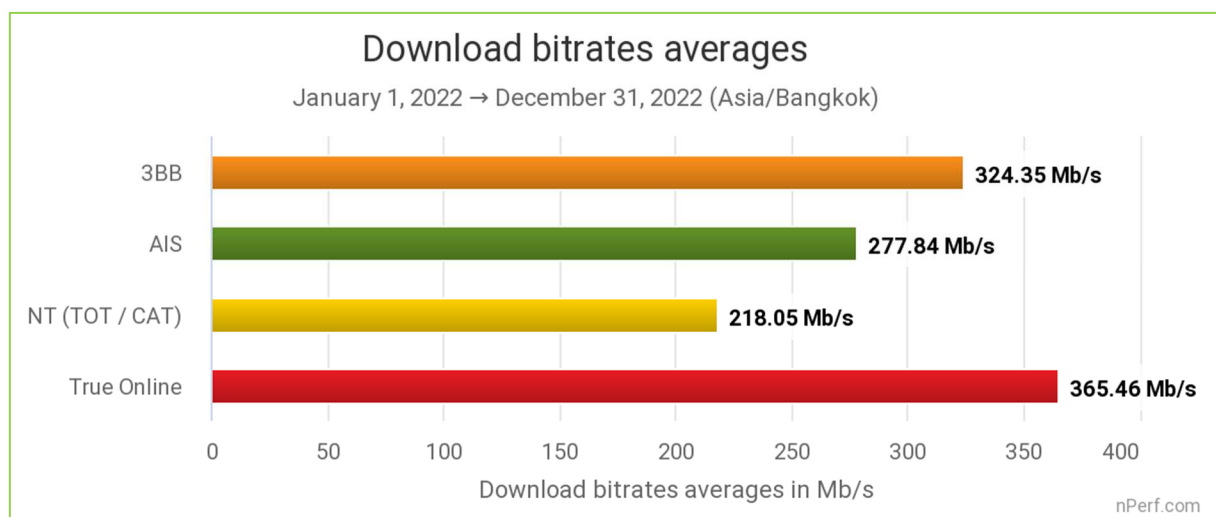
Between **January 1st, 2022** and **December 31st, 2022** we counted in Thailand **7.070.396 speed tests** after filtering (see § 5.4).

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



Following the merger of TOT and CAT Telecom into NT Pcl., the share of this newcomer is obviously higher and reaches more than 19%. Concerning the rest of ISP, the percentage of their tests has remained pretty stable, growing or dropping about 1 point.

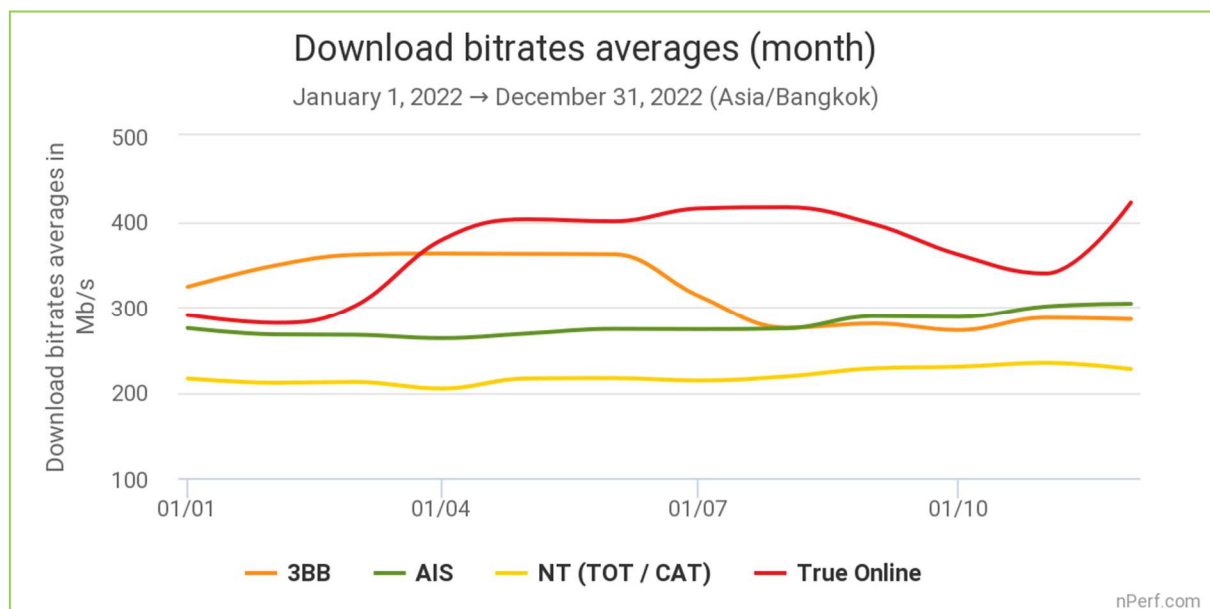
1.2 Download speed



The highest speed is the best.

True Online subscribers enjoyed the best average broadband download speed over the last year.

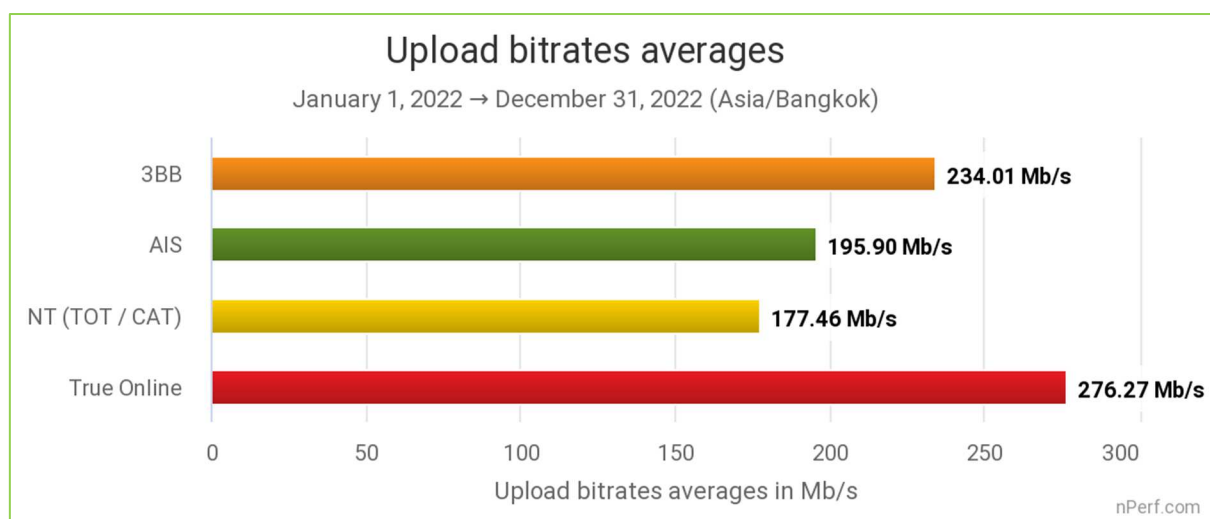
The True fixed network has offered the highest download speed of the country's, 41 Mb/s ahead of its closest competitor, 3BB. Even the worst ranked operator, NT, proposes a very good download speed on average, over the 218 Mb/s. The best improvements, comparing to 2021, are for the winner itself : +51,2 Mb/s, meaning +16,2%.



The graph above shows the evolution of the *monthly* average bitrates throughout the period.

As we can notice, True Online has flown over this race, but only since March. Indeed, its speed has considerably enhanced last spring and been held very high (approx. 400 Mb/s) throughout the summer and the fall. Then came a slight drop in October/November, before the final jump of December to reach its former level. 3BB was first until April, significantly lowered in July/August, and even lost its second position in August, by getting surpassed by AIS, the third ranked at global. The latter and NT have shown lower but constant figures over the whole period.

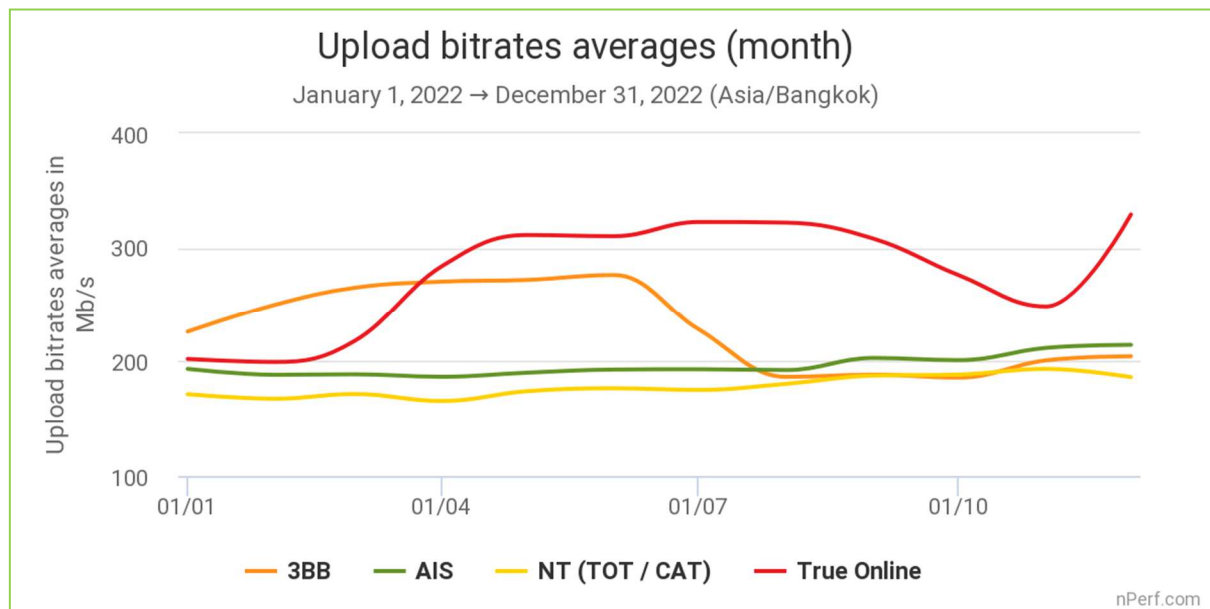
1.3 Upload speed



The highest speed is the best.

True Online subscribers enjoyed the best average broadband upload speed over the last year.

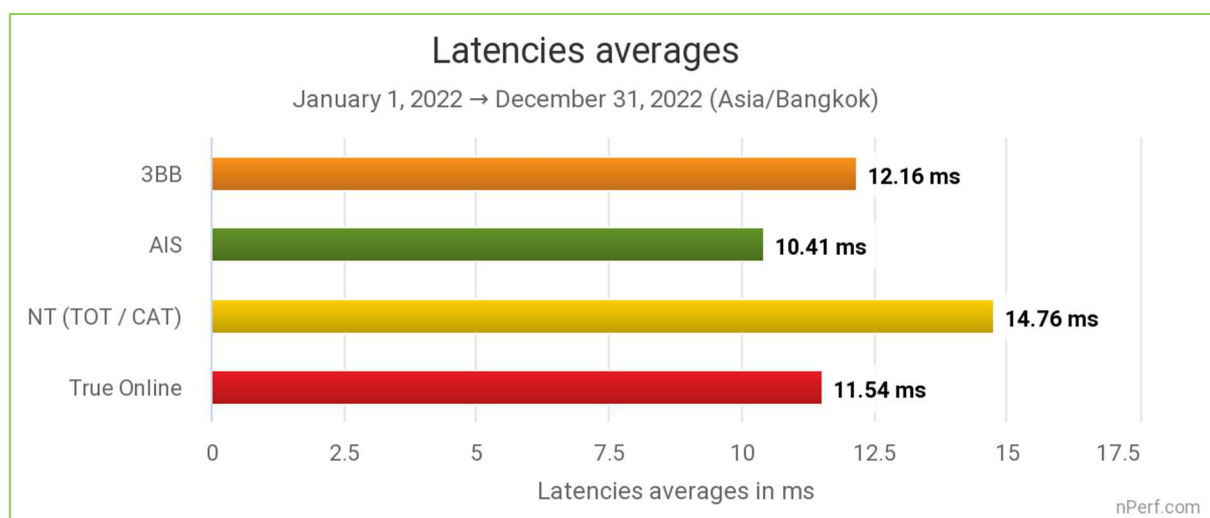
The rank is identical comparing to the download : True dominates with more than 40 Mb/s ahead of 3BB, then come AIS in third position and lastly NT, both situated in the hundred below. The strongest yearly progressions have been shown by True Online (+38 Mb/s) and NT (+25 Mb/s).



The graph above shows the evolution of the *monthly* average bitrates throughout the period.

The exact same monthly trends than before appear in this case. Only, the figures are somewhat lower.

1.4 Latency

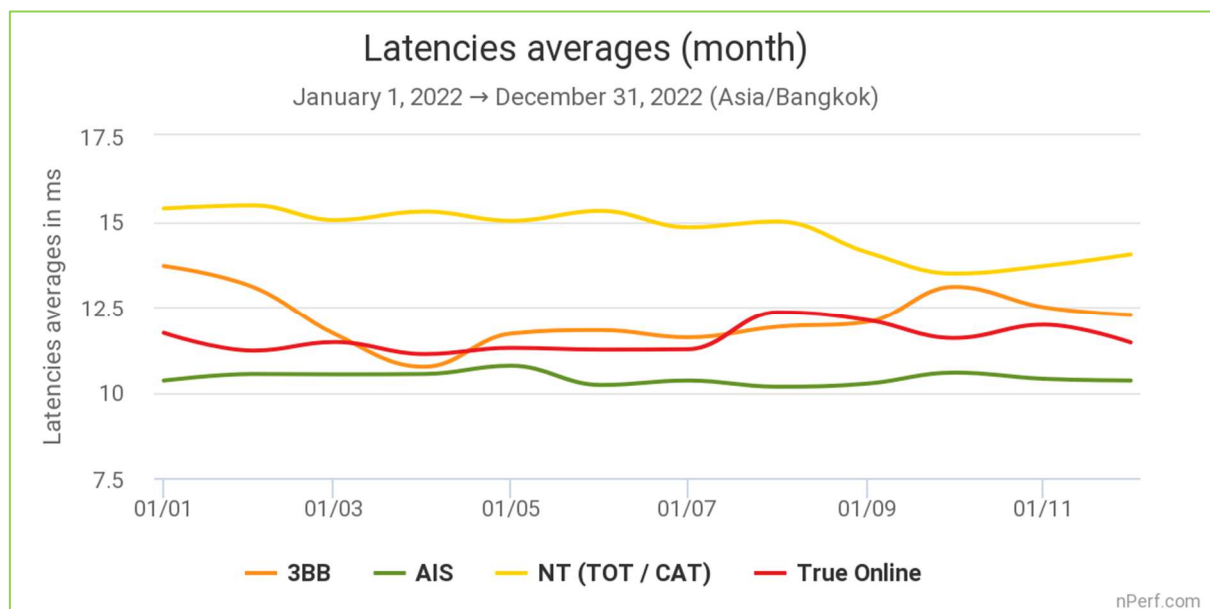


The shortest time is the best.

AIS subscribers enjoyed the best average broadband latency over the last year.

Pretty close to the symbolic threshold of 10 ms, this operator wins the battle of the shortest time of response of the country, and, as the graphic below shows, has kept its advantage all along 2022.

Surprisingly, all ISP have deteriorated their throughputs between 2021 and 2022. Nevertheless, AIS has given up less than its competitors, and 3BB improved very much within the first quarter.



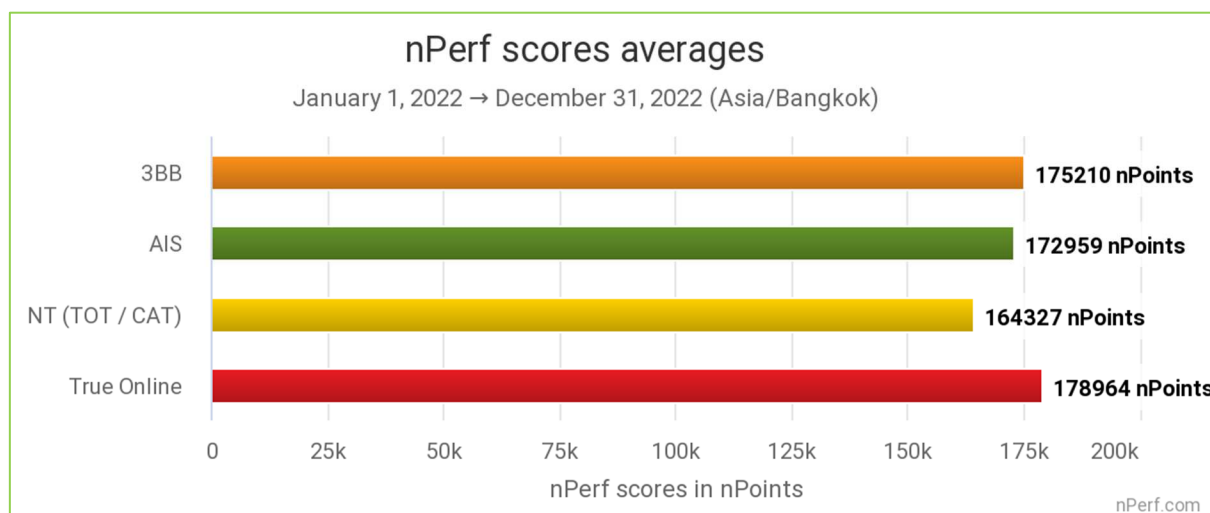
The graph above shows the evolution of the *monthly* average latency throughout the period.

1.5 nPerf scores

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 **felt by the user**.

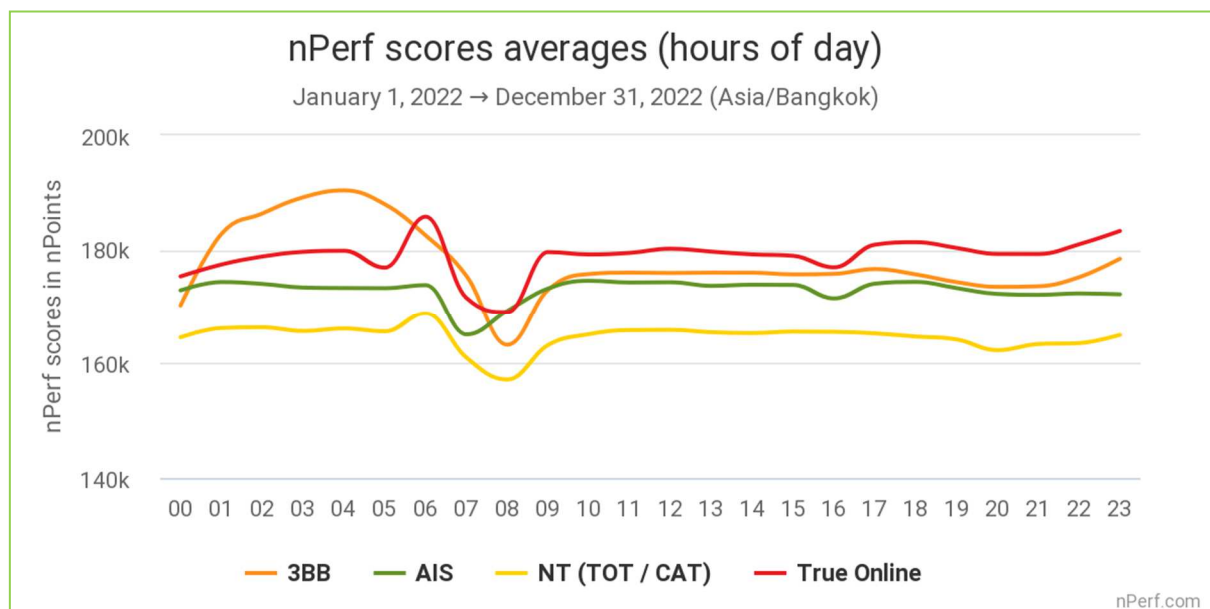
The results below consider all the previous indicators and therefore all the tests carried out. As technologies are grouped together, the proportion of tests in different technologies strongly impacts this global trend.



The highest value is the best.



True Online subscribers enjoyed the best broadband Internet performances in 2022.



The graph above illustrates the evolution of the *hourly* average scores throughout the period.

Thai consumers can count on a good quality of connection. Like very often, a little drop from 7 to 9 am occurs in all networks. During the night hours, 3BB offers a higher performance. The networks' liability and consistence seem to be guaranteed through the daytime with any provider.

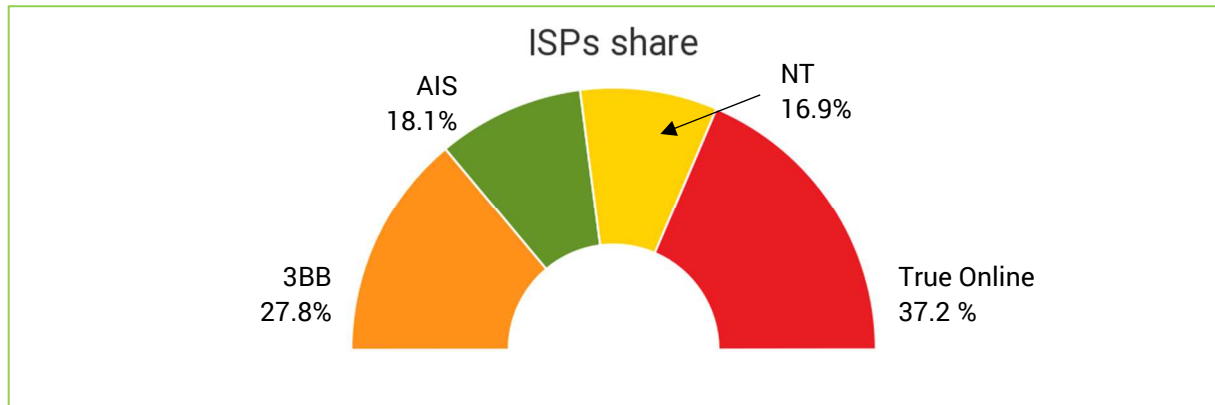


Find this global indicator directly in the website, or on your mobile device, via the « Compare » function at the end of the (full) test. It is updated in real time over 14 rolling days.

2 Optical fiber (FTTH) results

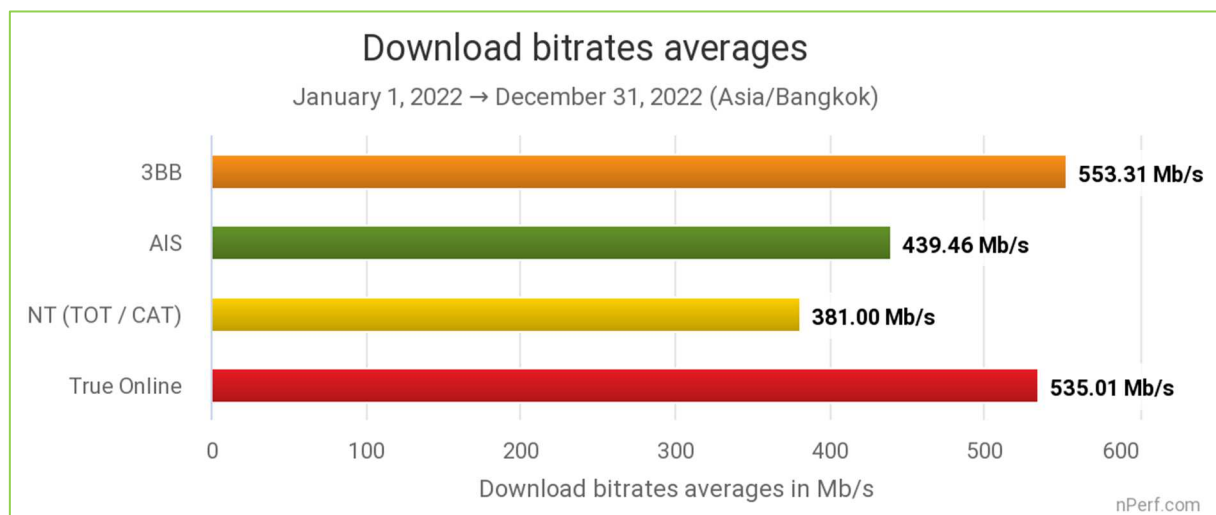
2.1 Data volume and distribution

Between **January 1st, 2022** and **December 31st, 2022** we counted **3.957.220** tests on optical fiber networks, after filtering (see § 5.4.). The overall distribution of the tests per provider is as follows:



The indicators that follow in this section relate only to the FTTH technology (Fiber to the home) proposed by the carriers. In order to isolate the FTTH tests for the comparison, we have chosen to filter on an upload bitrate greater than or equal to 100 Mb/s. Thus, only the FTTH results stand out, the technologies like FTTLA / FTTB, G-Fast or VDSL are discarded. However, this filter also eliminates "bad" FTTH tests, at least those that have a bitrate below 100 Mb/s. This filtering is identical for all operators, it does not put into question the comparison.

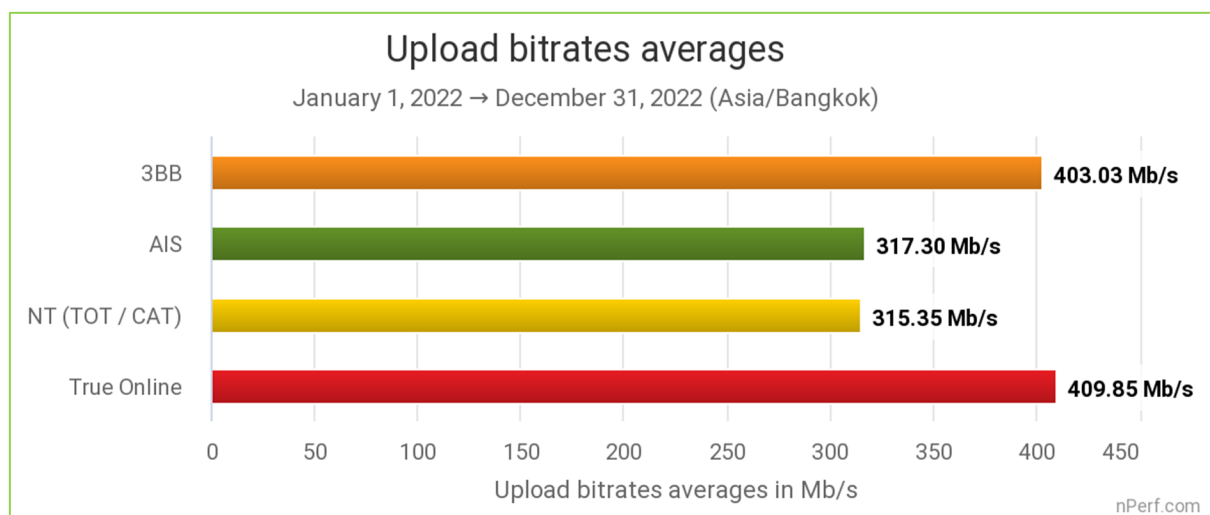
2.2 FTTH download speed



The highest value is the best.

On FTTH technologies, 3BB delivered the best average download speed to its subscribers in 2022.

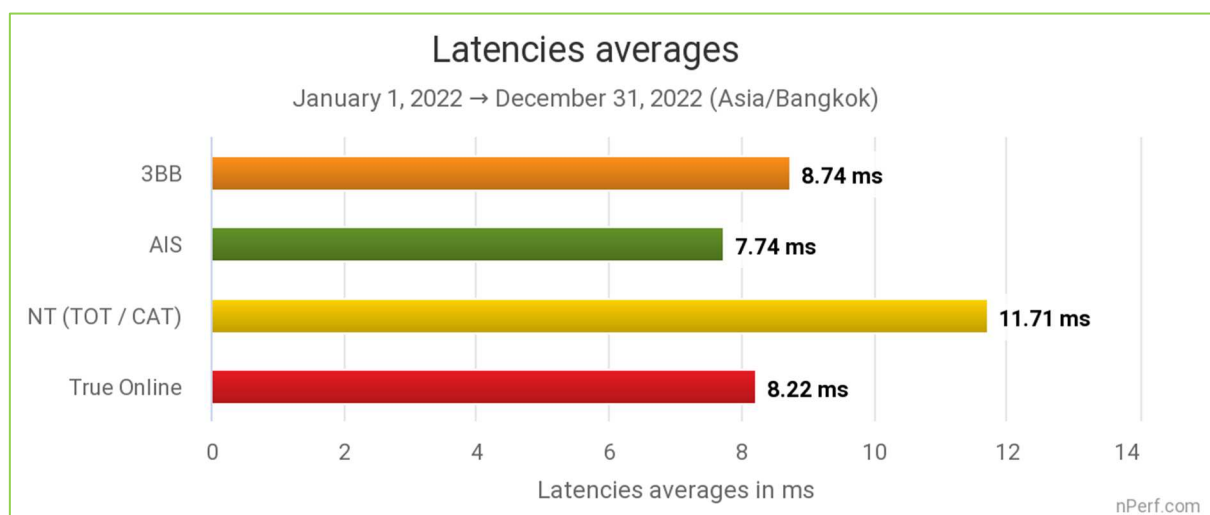
2.3 FTTH upload speed



The highest value is the best.

On FTTH technologies, True Online delivered the best average upload speed to its subscribers in 2022.

2.4 FTTH latency



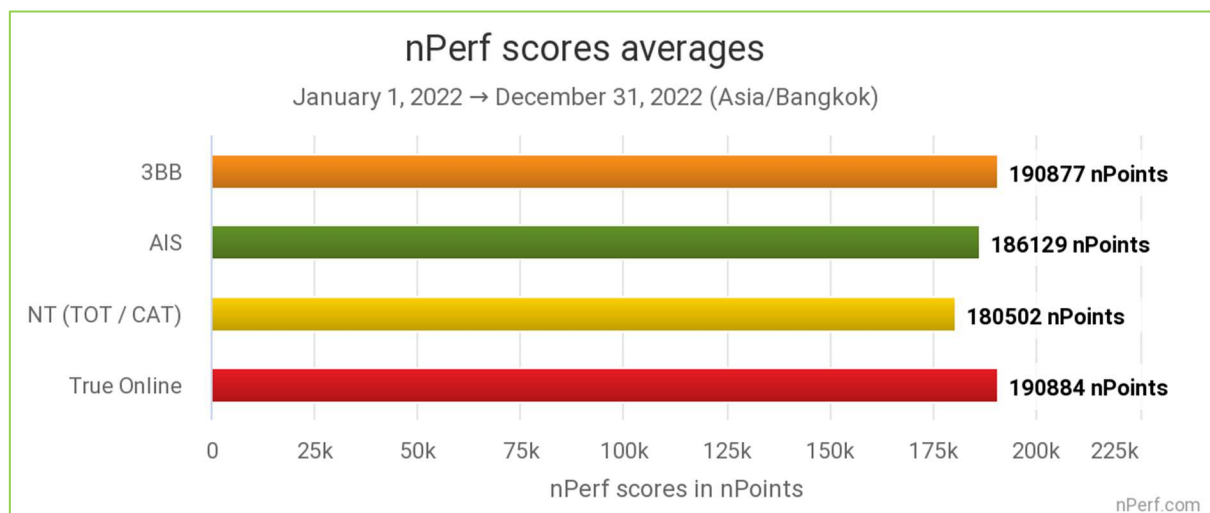
The lowest value is the best.

On FTTH technologies, AIS delivered the best average latency to its subscribers in 2022.

2.5 FTTH 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.

True Online and 3BB offered the best 2022 internet performances on optical fiber networks.

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 studies, or want to get the raw data, punctually or automatically, to compile it yourself?

You can contact nPerf via www.nperf.com through the "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 quality of their Internet connection. The panel of this study is formed by its users **in Thailand**. 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 the **hundreds of thousands of tests** carried out monthly, exclusively by the operators' end customers, which makes it the "crowdsourced" study based on **one of the largest panels of the country**.

These tests reflect the **actual experience of the general public** on the various Internet networks.

5.2 Speed and latency tests

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.

5.3 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task. These servers are hosted in the country and abroad. Indeed, nPerf has also installed dedicated servers directly at some providers' facilities, to maximize measurement reliability. **Local carriers are welcome [to install nPerf servers, that's free](#) !**

The total bandwidth available for Thailand is **1 Tb/s**, and reaches more than **12 Tb/s** worldwide, with more than **2.560** active nPerf servers!

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...).

The exclusive nPerf algorithm retains only the relevant tests, thus eliminating biases related to the overrepresentation of certain terminals, users or test locations.

The results are classified by provider. Tests performed on cellular connections (2G, 3G, 4G & 5G), or on professional/business/military/academic networks are also excluded from this barometer.

5.5 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	7.070.396	0.5%	0.25 point
FTTH	3.957.220	0.5%	0.25 point

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