

Barometer of fixed Internet connections in Indonesia

2022 Report



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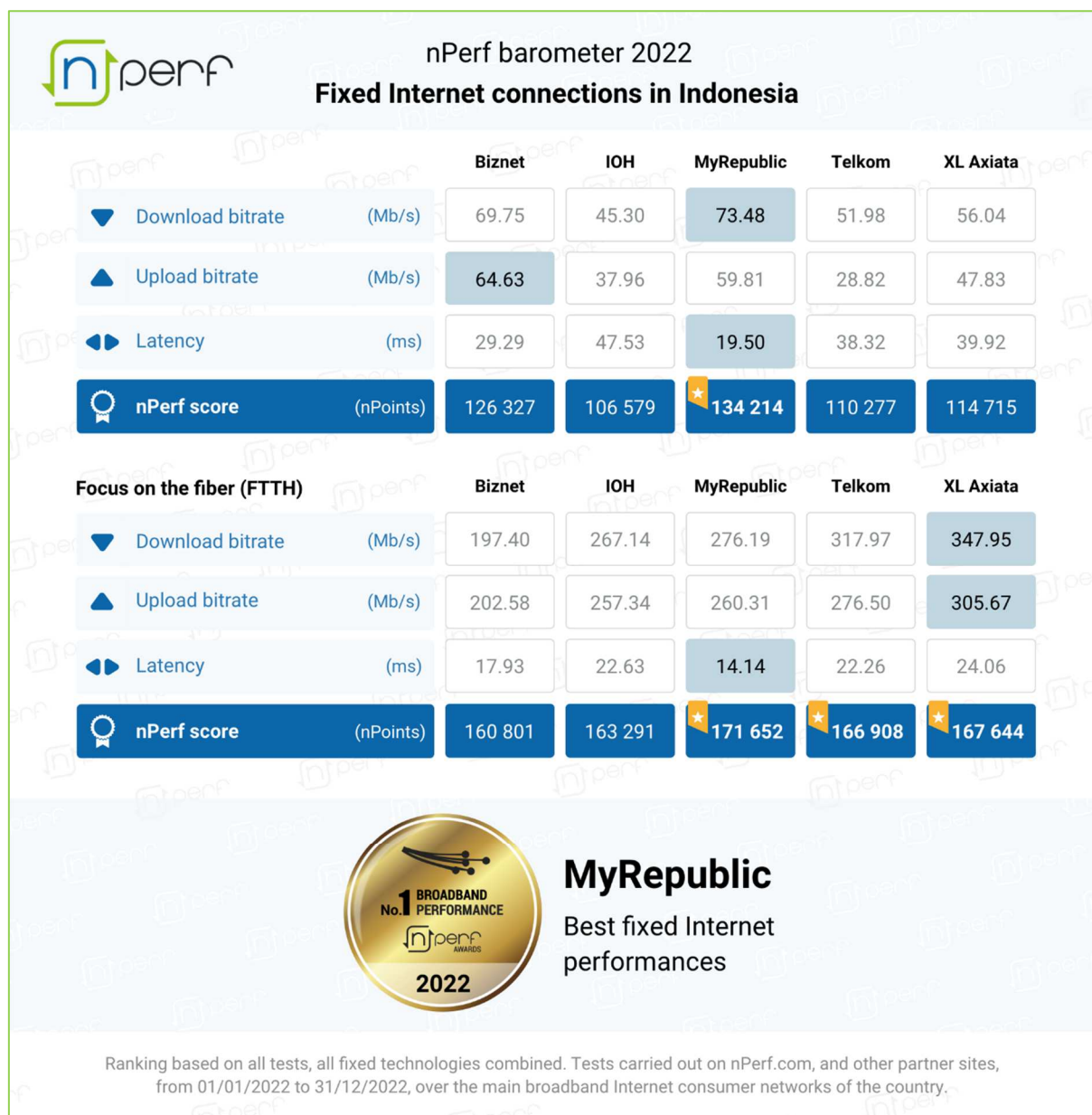


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1 Summary

1.1 KPIs and nPerf scores



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MyRepublic provided the best broadband Internet performances in Indonesia in 2022.

1.2 Our analysis

This study is based on the tests carried out by users of the nPerf website and nPerf partners. During the last year, users in **Indonesia** completed, after filtering, **271.702 tests**.

MyRepublic is **sacred champion** of Indonesian broadband Internet.

In 2022 the download speed in the country reached in average 58 Mb/s and the upload speed 42 Mb/s.

All technologies combined, **MyRepublic** provided the best download speed to its subscribers with more than 73 Mb/s while **Biznet** delivered the best upload one with around 64 Mb/s.

Regarding the latency, **MyRepublic** is far ahead of its competitors, close to 19 ms on annual average.

Concerning **the focus on the fiber**, **XL Axiata** offered the best download speed, up to 340 Mb/s, and upload speed, up to 300 Mb/s.

MyRepublic still provided the best latency, close to 14 ms.

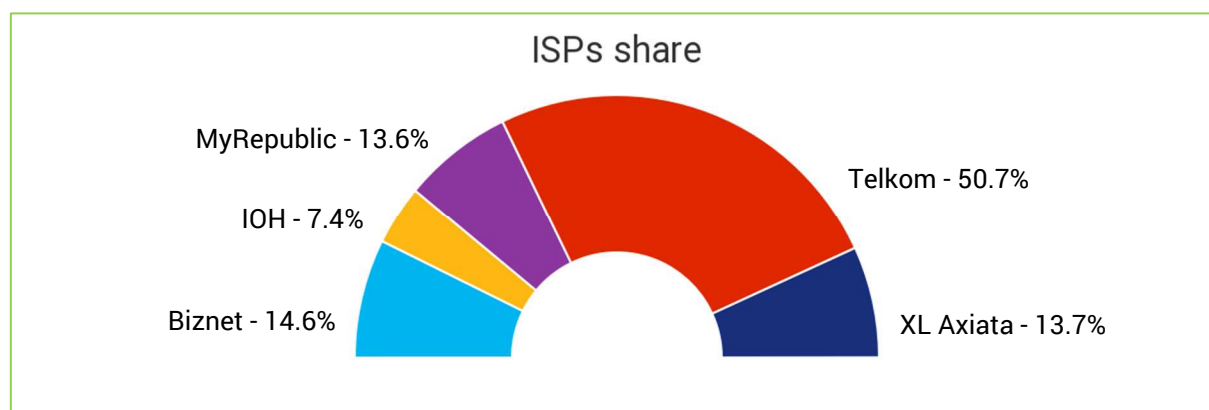
Telkom, by providing also strong FTTH performances also benefits from the joint first place of our FTTH podium shared with **XL Axiata** and **MyRepublic**.

Indonesians can be delighted with these fine fiber Internet performances.

1 Global results

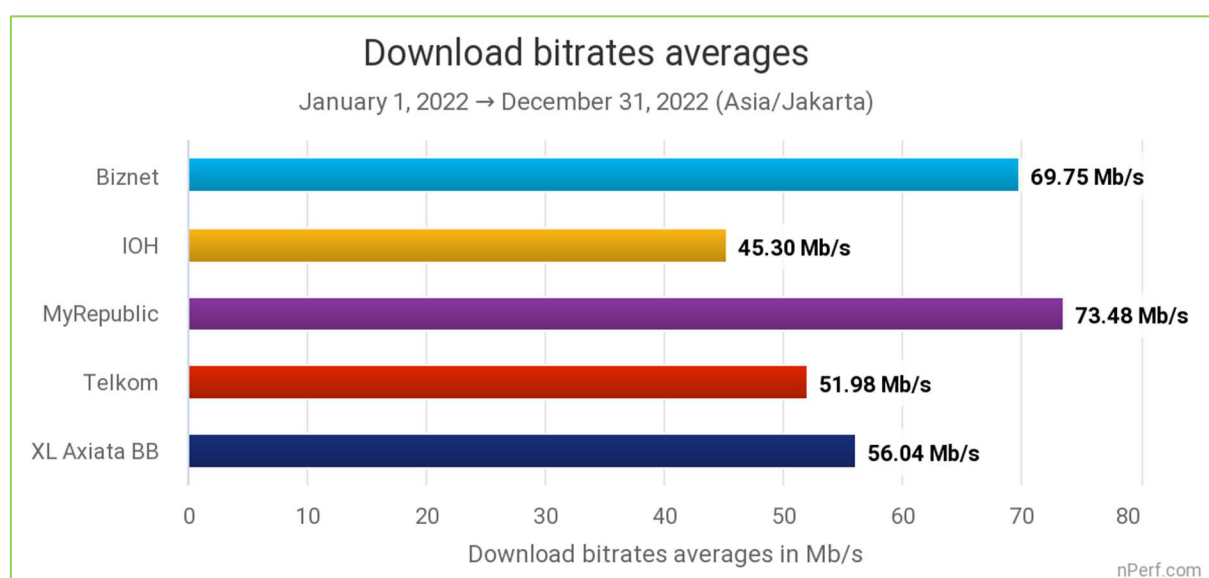
1.1 Data volume and distribution

Between **January 1st, 2022** and **December 31st, 2022** we counted in Indonesia 380.375 speed tests through the main broadband national networks. After filtering (see § 5.4), **271.702 tests** have been retained, and their overall distribution per provider is as follows :



While Telkom accounts for more than half of the selected tests, Biznet, XL Axiata and MyRepublic have around 14% each, and Indosat Ooredoo Hutchison (IOH) only represents 7.4% of the tests.

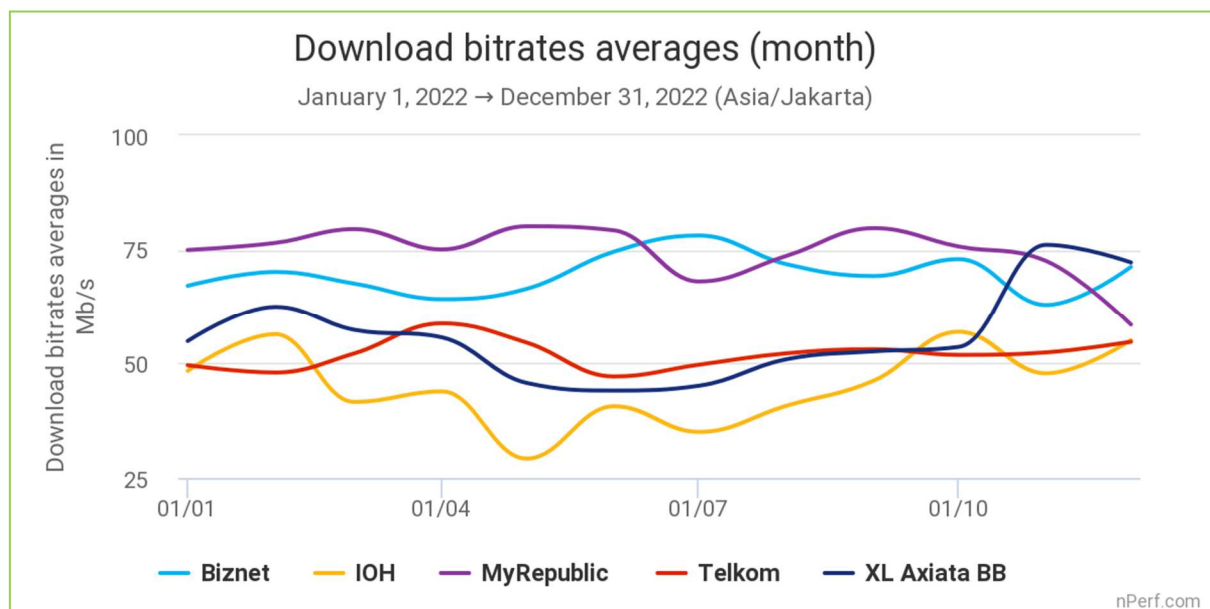
1.2 Download speed



The highest speed is the best.

MyRepublic subscribers enjoyed the best average broadband download speed in 2022.

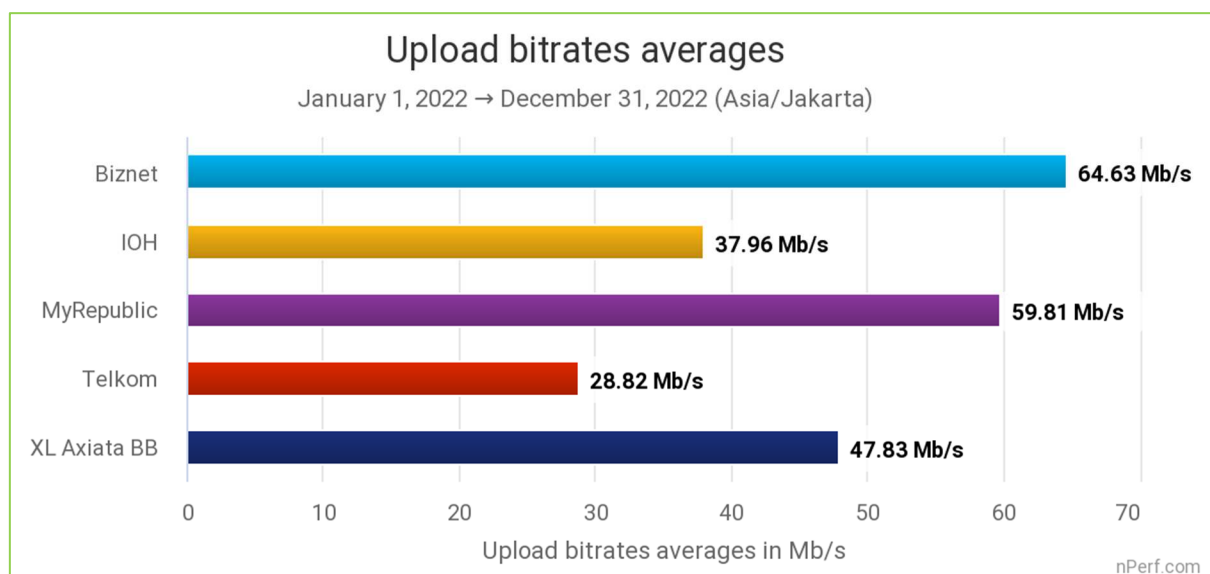
The subsidiary of the Singaporean group takes the lead in this first annual barometer. It manages to reach more than 70 Mb/s. Biznet, its closest challenger, is not far, just under this threshold. A step lower are XL Axiata and Telkom, with an average of 56 Mb/s and 52 Mb/s respectively, and in last position comes IOH.



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

The leadership of MyRepublic was clear during 2022, followed by Biznet. Nevertheless, last November saw a jump in throughputs at XL Axiata, which moved it from third place to first place by the end of the year. At the same time, MyRepublic has been falling since October.

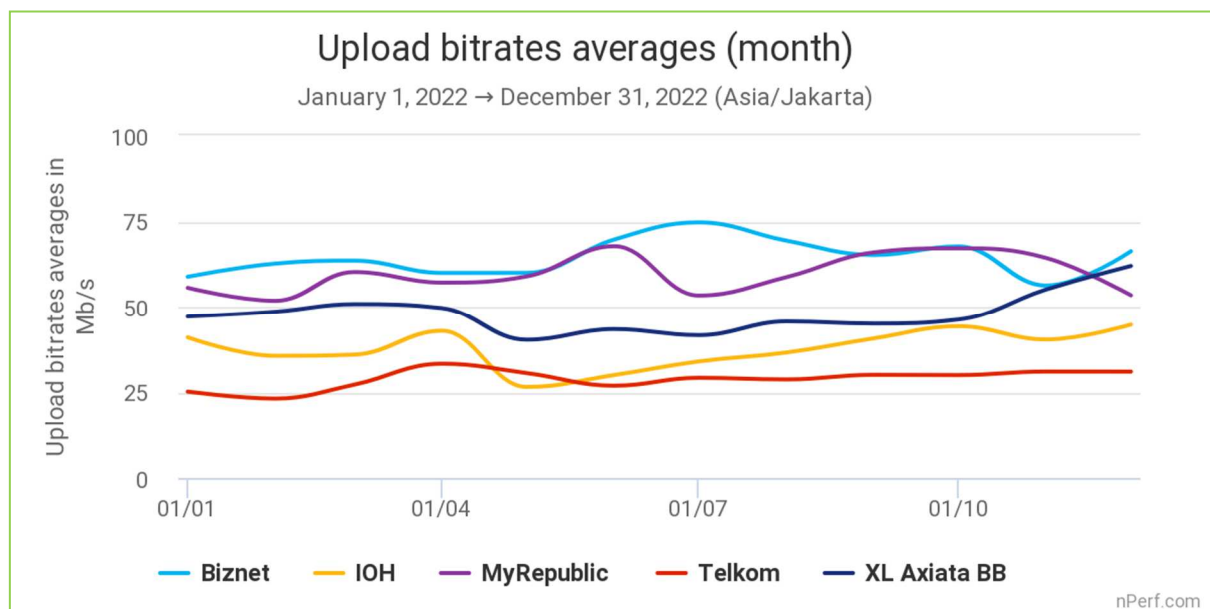
1.3 Upload speed



The highest speed is the best.

Biznet subscribers enjoyed the best average broadband upload speed in 2022.

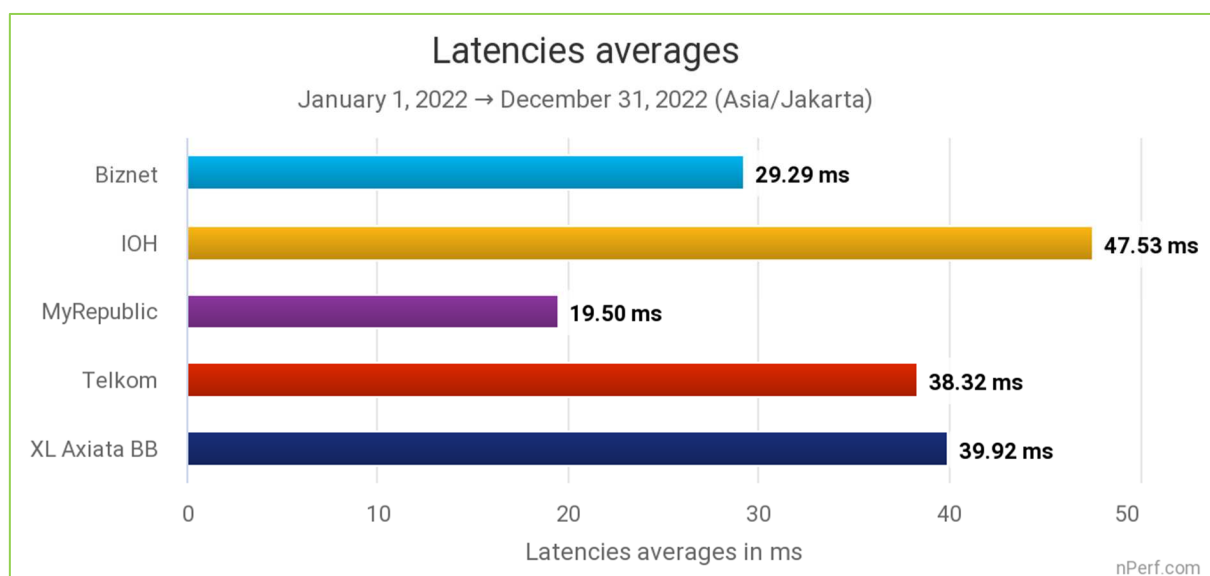
This operator balances the situation with MyRepublic on the uploading speed. In second position we find the latter, just below 60 Mb/s. As for download speed, XL Axiata is third, IOH is fourth, and Telkom, from its last position, cannot keep up with the pace, with a throughput lower than the half that of the second ranked.



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

As the different speeds often go hand in hand, the end-of-year trends noted at MyRepublic and Biznet on downstream speeds can be found here. Telkom only left the last position in May 2022.

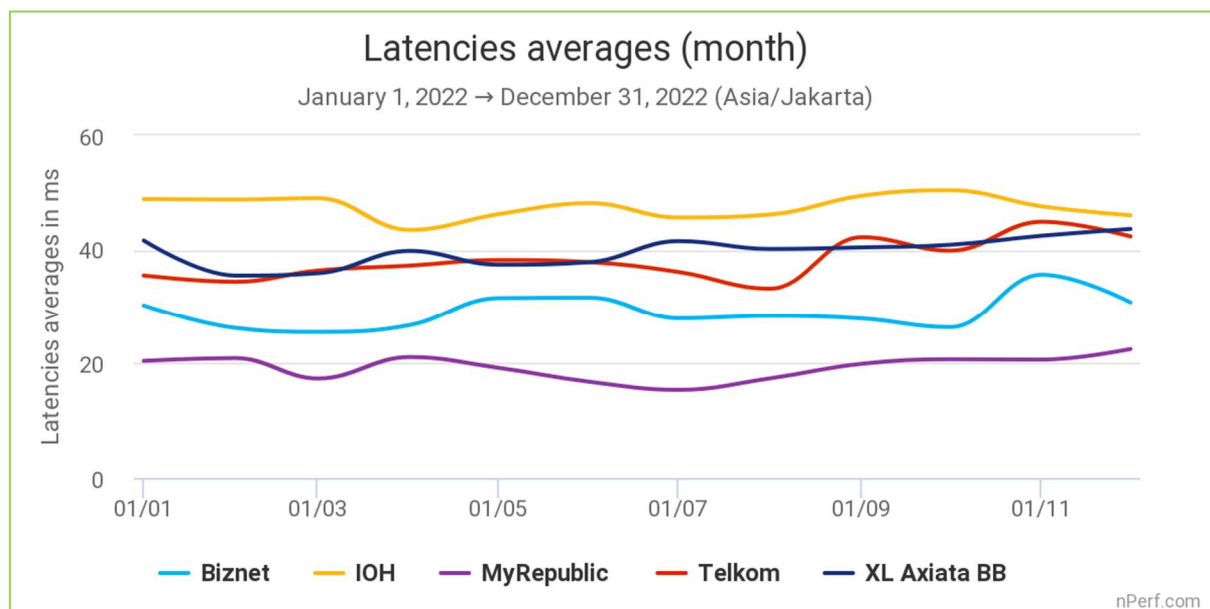
1.4 Latency



The shortest time is the best.

MyRepublic subscribers enjoyed the best average broadband latency in 2022.

MyRepublic gets its second victory with this indicator, and it is a clear one, as it offers a latency 10 ms faster than the second best, Biznet, with about 19 ms. This is a very good response time. Still 10 ms slower than Biznet, Telkom and XL Axiata come third and fourth, respectively. The less performant time of response is provided by IOH.



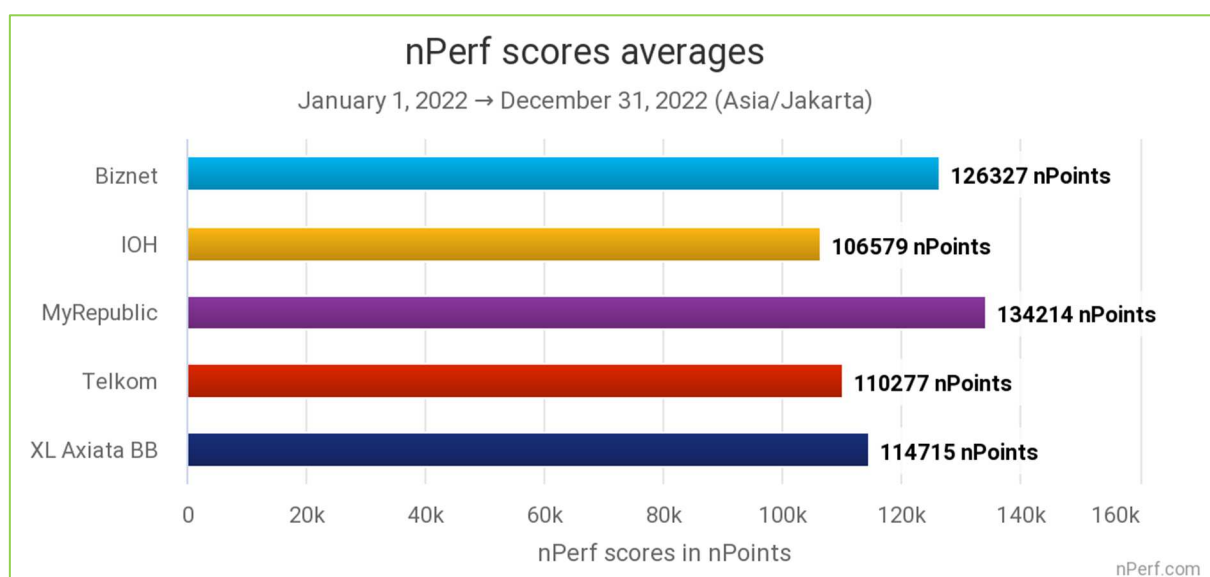
The battle was fiercely contested all year long between XL Axiata and Telkom, while MyRepublic and Biznet moved smoothly at around 20 and 30 ms, and IOH just beneath 50 ms.

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**.

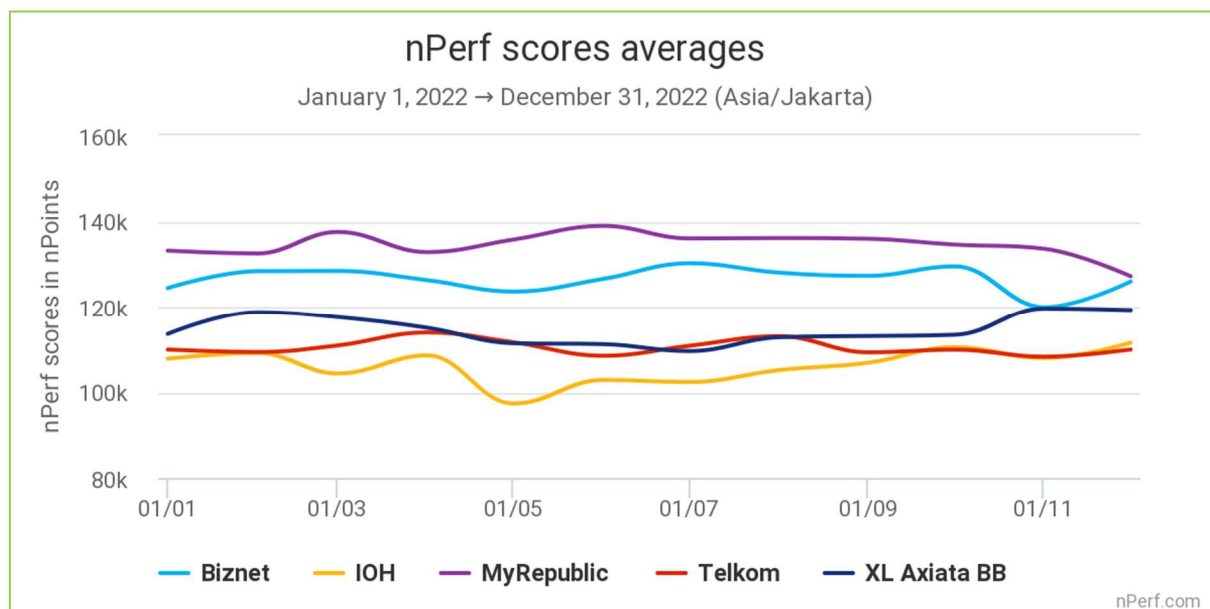
The results below consider all the previous indicators and therefore all the tests carried out. As technologies are grouped together, the proportion of tests in different technologies strongly impacts this global trend.



The highest value is the best.



MyRepublic subscribers enjoyed the best broadband Internet performances in 2022.



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

Thanks to its wins in download speed and latency, MyRepublic obtains the crown of the first nPerf barometer of fixed connections in Indonesia. Biznet is the second qualified, and leads the battle of the upload speed, in addition to being second on downloading and latency.

On the other hand, XL Axiata and Telkom perform less well, sharing the third and fourth positions on the main indicators, with XL Axiata being better on throughputs and Telkom on latency.

For its part, IOH closes the general ranking because it is last on each KPI, excepting the uploading speed, where it ends up fourth.

Thus, MyRepublic dominates the fixed Internet landscape in Indonesia. However, less than 8.000 nPerf points separate it from the second classified, Biznet. This distance could look comfortable for the leader, but it must be careful for 2023, as we never know how fast things can change within a few months.

The five main ISP being above 110k points, we can consider that the average performance of broadband connections in the country is rather good.

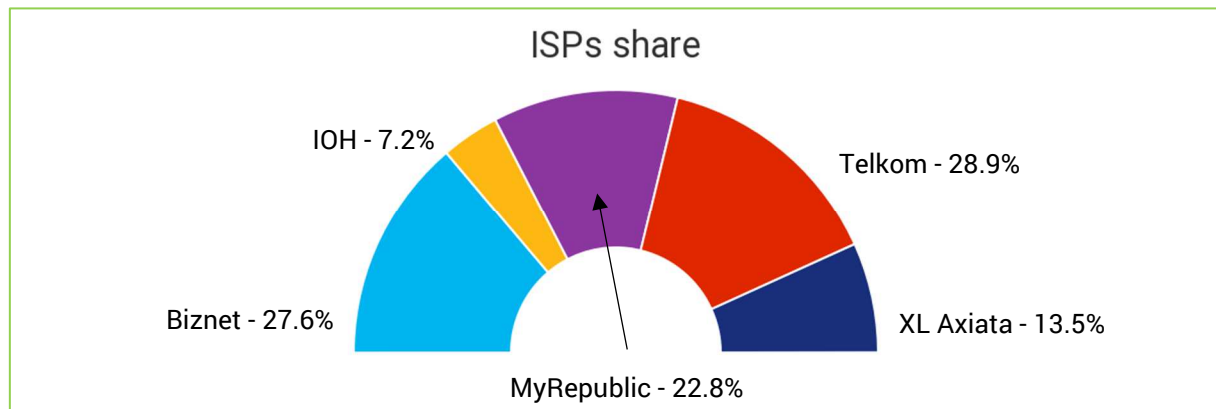


Find this global indicator directly in the website, or on your mobile device, via the « Compare » function at the end of the (full) test. It is updated in real time over 14 rolling days.

2 Results - fibre optics (FTTH)

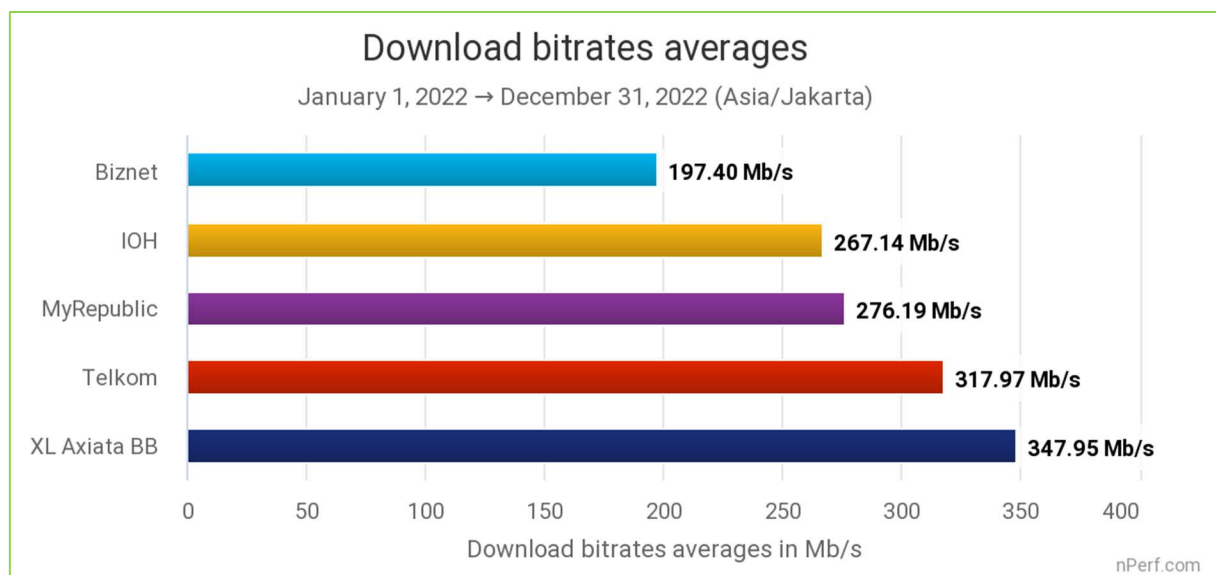
2.1 Data volume and distribution

Between **January 1st, 2022** and **December 31st, 2022** we counted in Indonesia 32.085 speed tests through the main fibre optics national networks. After filtering (see § 5.4), **19.987 tests** have been retained, and their overall distribution 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.

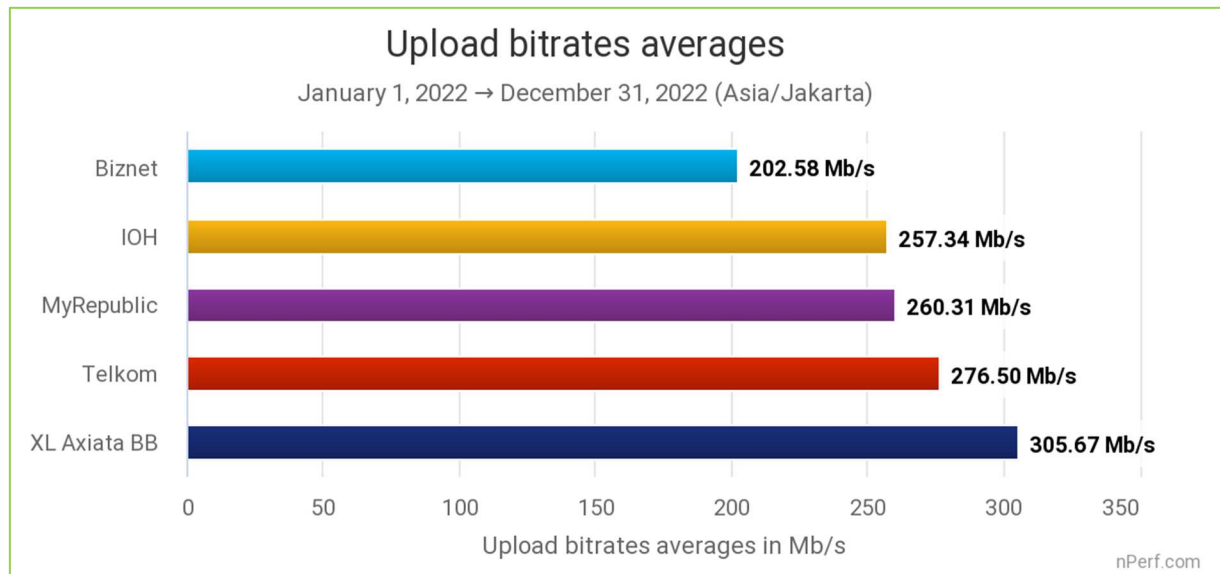
2.2 Download speed (FTTH)



The highest value is the best.

XL Axiata subscribers enjoyed the best average FTTH download speed in 2022.

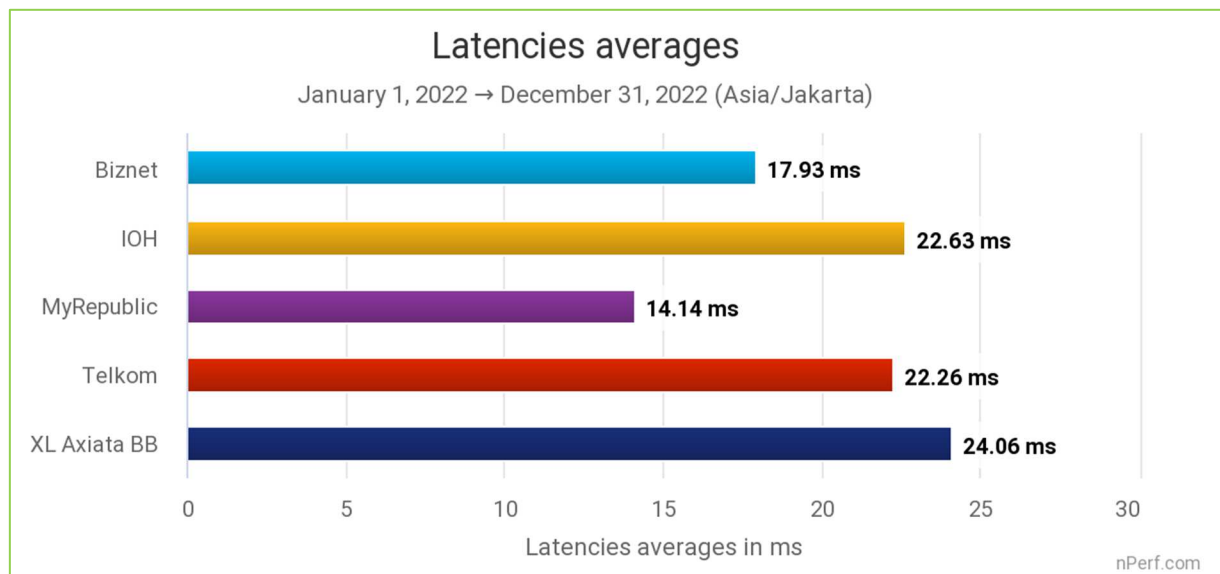
2.3 Upload speed (FTTH)



The highest value is the best.

XL Axiata subscribers enjoyed the best average FTTH upload speed in 2022.

2.4 Latency (FTTH)



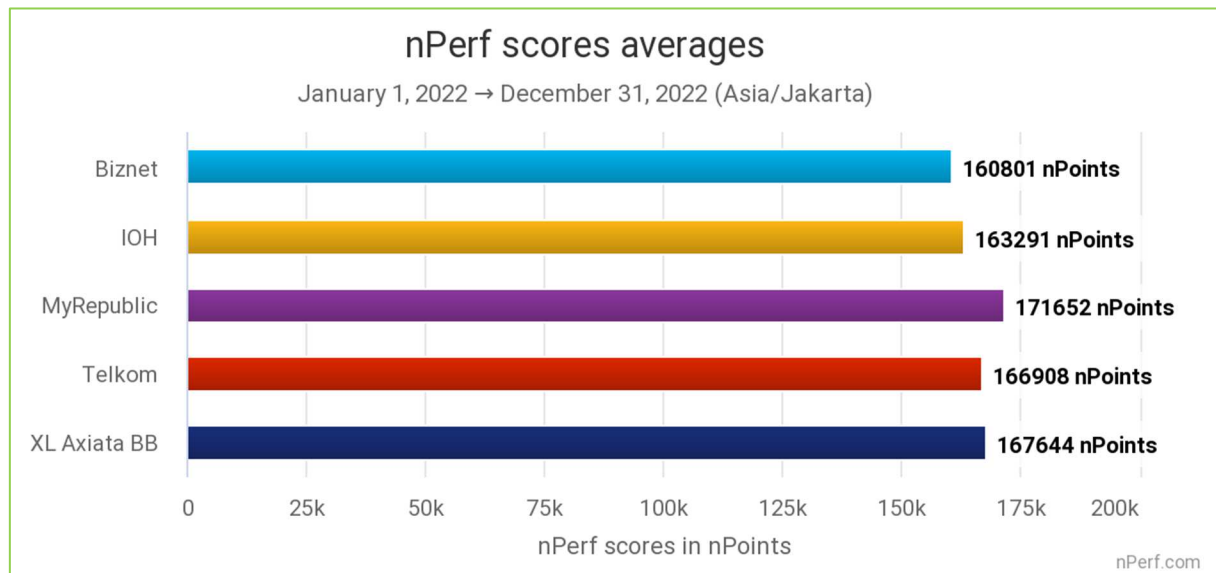
The shortest time is the best.

MyRepublic subscribers enjoyed the best average FTTH latency in 2022.

2.5 nPerf scores (FTTH)

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.

MyRepublic, XL Axiata and Telkom subscribers enjoyed the best 2022 Internet performances on FTTH networks.

In this category, the situation is very different than for the general results : XL Axiata and Telkom show a clear superiority on the downloading and uploading speeds. However, the leading duo of the global ranking offer a better latency than their contenders. In the end, the differences in score are very small on FTTH, with a triple winning equalisation between MyRepublic, XL Axiata and Telkom, whereas IOH and Biznet follow closely, but can't help being relegated to the last positions.

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!



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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 Indonesia**. 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, 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 Indonesia is **283,5 Gb/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 business/wholesale/military/academic/public/private 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	271.702	2%	1 point
FTTH	19.987	3%	1 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**.