March 20, 2024

Barometer of mobile Internet connections in Nigeria.

01/01/2023 - 31/12/2023

Agenda

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1. Introducing nPerf

Expert in the telecom network optimization

nPerf is an independent French company based in Lyon (France). For over a decade, nPerf has been a trusted partner for both fixed and mobile operators, providing comprehensive network testing solutions and analysis. Our mission is to accurately measure, evaluate, and enhance the understanding of Internet connectivity around the world.

300k+ tests daily worldwide.

26Md+ coverage scans in total.

3k+ servers all around the world.

Test your Internet connection with nPerf!

nPerf allows you to test the quality of your fixed, mobile, or Wi-Fi Internet connections up to 10 Gb/s!
Dowload our app or visit our website!

Available on the App Store

GET IT ON Google Play

Test your connection on nPerf.com

The subscribers of MTN enjoyed the best mobile Internet performances in Nigeria during 2023.

Cellular Internet connections in Nigeria

	Airtel	Glo	MTN
Download bitrates (Mb/s)	11.02	5.07	13.97
Upload bitrates (Mb/s)	3.94	2.37	6.17
Latency (ms)	132.84	137.77	127.68
Web browsing (%)	35.80	27.64	38.73
Youtube streaming (%)	69.86	61.02	71.65
nPerf Score (nPoints)	29 256	17 540	34 630

Source : nperf.com

MTN

Best mobile Internet performance in 2023

No.1 MOBILE NETWORK PERFORMANCE
nperf AWARDS

Source : nperf.com

airtel   glo   MTN

Source : nperf.com

Nigeria's mobile telecommunications landscape is competitive, with several key operators like Airtel, Glo, and MTN providing varied services.

MTN : The market leader

MTN takes the lead with the highest nPerf score of 34,630 points. It boasts the fastest download speed at 13.97 Mb/s and an impressive upload speed of 6.17 Mb/s, coupled with a relatively low latency of 127.68 ms. MTN stands out for its web browsing success rate of 38.73% and the best YouTube streaming performance at 71.65%, highlighting its superior network quality and user experience in Nigeria.

Airtel : The major competitor

Airtel follows with an nPerf score of 29,256 points, offering robust download speeds of 11.02 Mb/s and upload speeds of 3.94 Mb/s. Its latency stands at 132.84 ms, and the network performs well in web browsing and YouTube streaming, with success rates of 35.8% and 69.86% respectively. Airtel's strong performance indicators demonstrate its commitment to providing reliable and fast Internet services.

Glo : The potential network

Glo, with an nPerf score of 17,540 points, has download speeds of 5.07 Mb/s and upload speeds of 2.37 Mb/s. It has a latency of 137.77 ms, which is competitive in the market. However, Glo's web browsing and YouTube streaming rates of 27.64% and 61.02%, respectively, indicate areas for improvement. Glo remains a crucial player in the Nigerian telecommunications market, with growth potential and improved service delivery.

Conclusion

In Nigeria, MTN and Airtel lead the telecommunications sector, showing strong performance across the board. Glo, although lagging behind, play an important role in providing vital telecommunications services to the Nigerian population.

For these operators, continued investments in network infrastructure, technology upgrades and customer-centric services will be key to improving their market position. Competition not only drives improvement in telecommunications services but also fosters innovation, leading to better connectivity and digital services for consumers in Nigeria.

nPerf provides a **free tool to assess Internet connection quality** via its website and mobile apps (Android, iOS). Daily, thousands of people rely on nPerf for speed tests in their country, contributing to a comprehensive crowdsourced database covering all operators.

The study employs a strong filtering method to reflect real customer experiences on a specific network (mobile or fixed line). Measures are taken to prevent probes and measurement robots from affecting the results.

For mobile connections, we assess:

▼ Download bitrate :

Indicates the amount of data your connection can receive in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

▲ Upload bitrate :

Indicates the amount of data your connection can send in one second from the nPerf server. The highest the measured value, the best is the bitrate of your connection.

◀▶ Latency (ping) :

It indicated the delay a small packet of data requires to make a round-trip from your computer to the nPerf server. The shorter the delay, the most reactive your connection is. The main is the minimum value.

🌐 Browsing performance :

The browsing test assesses the load time of the fully loaded pages, including images, JavaScript, CSS, and fonts, for the five most popular sites. This indicator reflects the user's perceived quality of the Internet network.
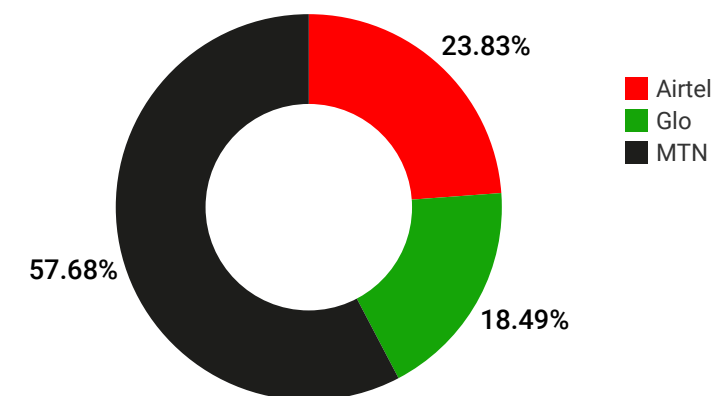
▶ Streaming performance :

The video streaming test gauges the load time of a fully loaded video in three resolutions on YouTube, considering stalls during playback. This indicator reflects the user's perceived quality of the Internet network.

Statistical precision is crucial in accurately determining winners. At nPerf, we prioritize test quality, precise reporting, and transparency. Analyzing a large volume of tests in this study, we've achieved 3 % precision for absolute values and 1 point for percentage-based results, highlighting the reliability and accuracy of our data.

For a more comprehensive understanding of the user experience, our report features test results during both Busy hours (6 PM to 11 PM) and Idle hours (the rest of the day). Busy hours, marked by network strain, can impact user experience through congestion. This approach helps in understanding how network performance fluctuates throughout the day.

We only include national Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.

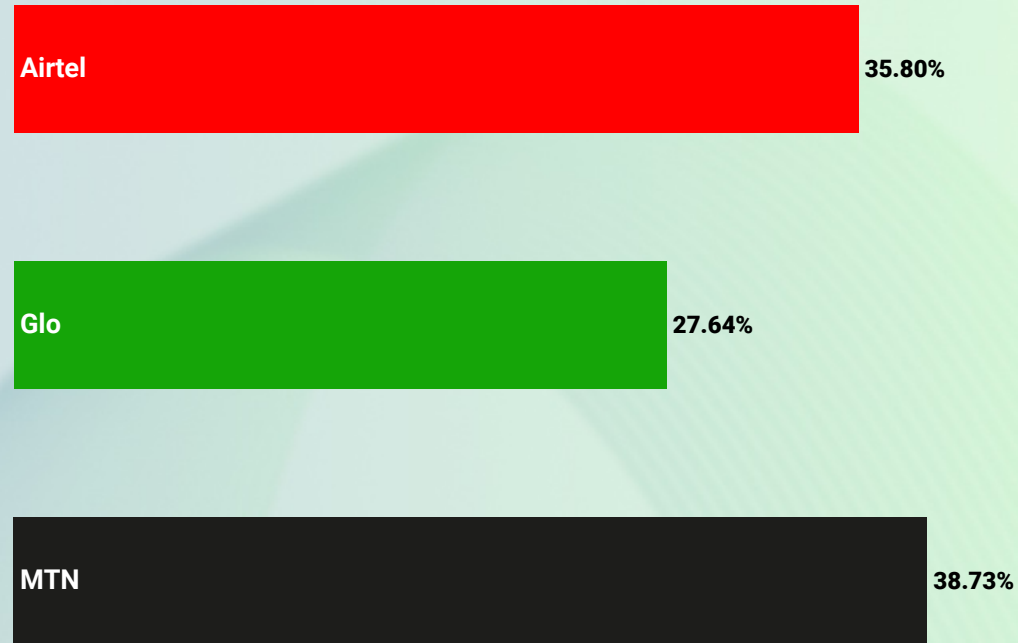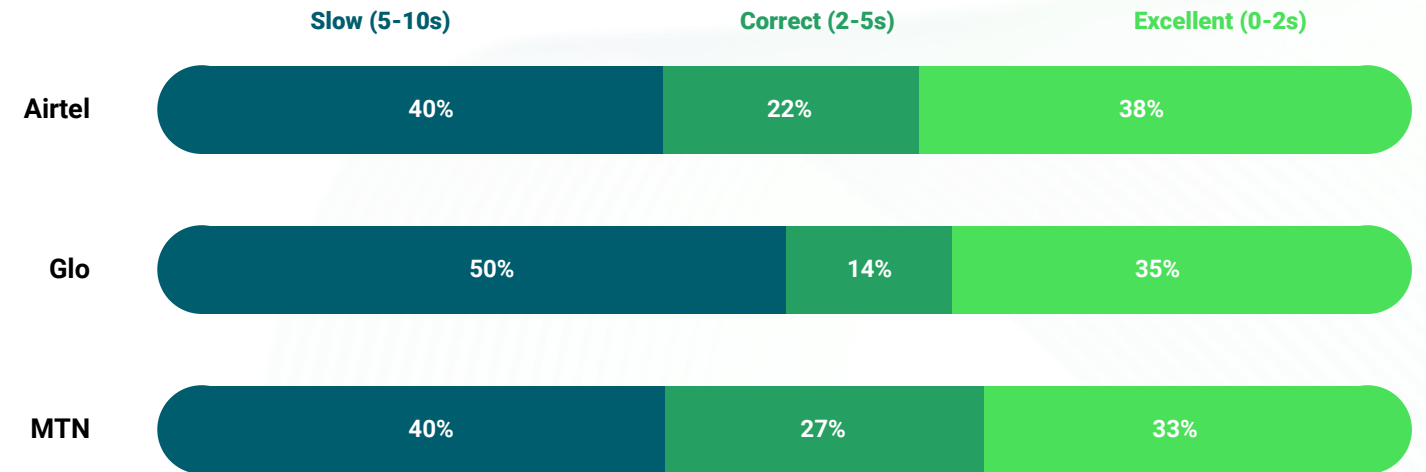**Overall distribution of the tests per provider (ISPs Share)**

- 23.83% Airtel
- 18.49% Glo
- 57.68% MTN

Source : nperf.com

Quality of Experience : Browsing

Browsing Performance rate (average)

Operator	Rate
Airtel	35.80%
Glo	27.64%
MTN	38.73%

Source : nperf.com

The subscribers of MTN enjoyed the best mobile Internet browsing performance in 2023.

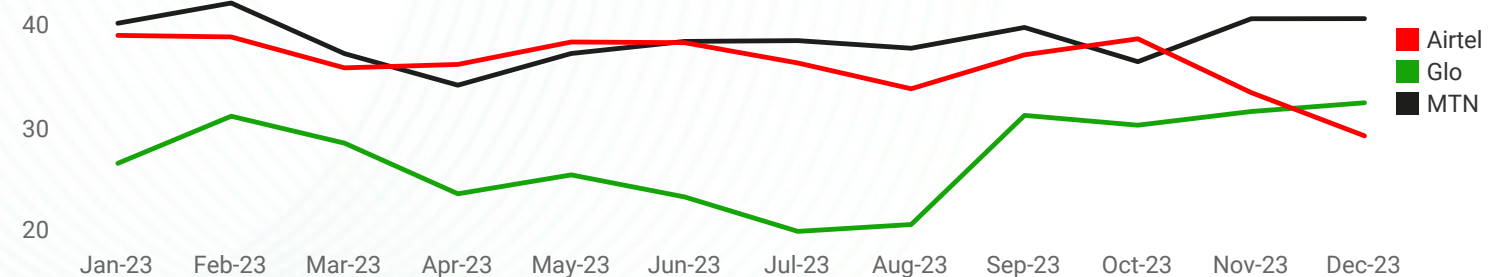## Browsing Performance results ventilation (average)

	Slow (5-10s)	Correct (2-5s)	Excellent (0-2s)
Airtel	40%	22%	38%
Glo	50%	14%	35%
MTN	40%	27%	33%

Source : nperf.com

Browsing Performance rate (average)

	Busy Time		Idle Time
Airtel	29.56%		37.58%
Glo	20.89%		29.22%
MTN	34.13%		39.94%

Source : nperf.com

Browsing performance rate (average) evolution over the year

Legend: Airtel (red), Glo (green), MTN (black)

X-axis: Jan-23, Feb-23, Mar-23, Apr-23, May-23, Jun-23, Jul-23, Aug-23, Sep-23, Oct-23, Nov-23, Dec-23

Source : nperf.com

Quality of Experience : Streaming

Streaming Performance rate (average)

- Airtel: 69.86%
- Glo: 61.02%
- MTN: 71.65%
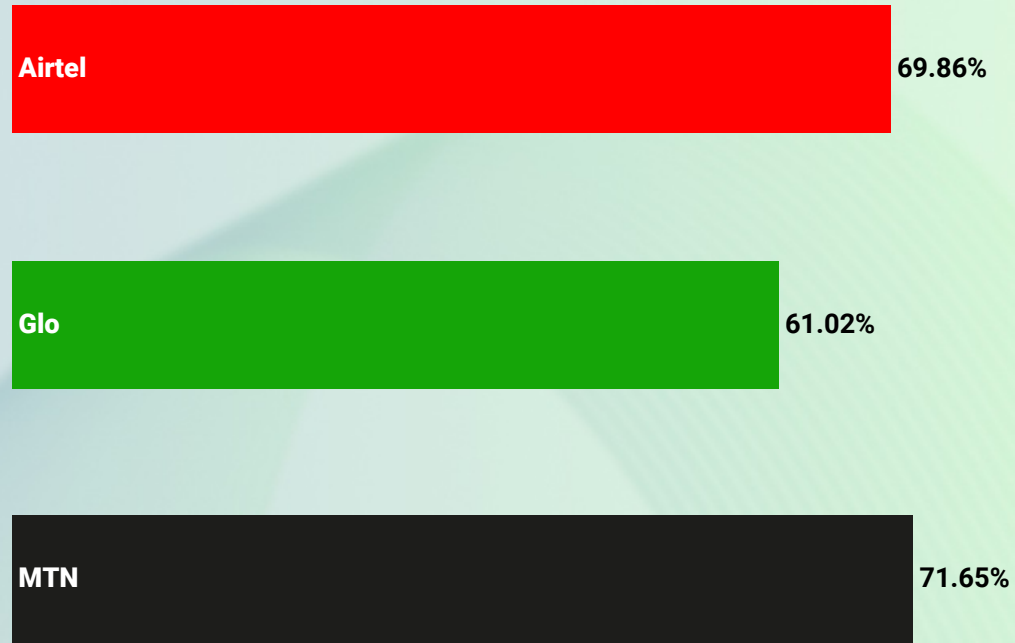
Source : nperf.com

The subscribers of MTN enjoyed the best mobile Internet streaming performance in 2023.
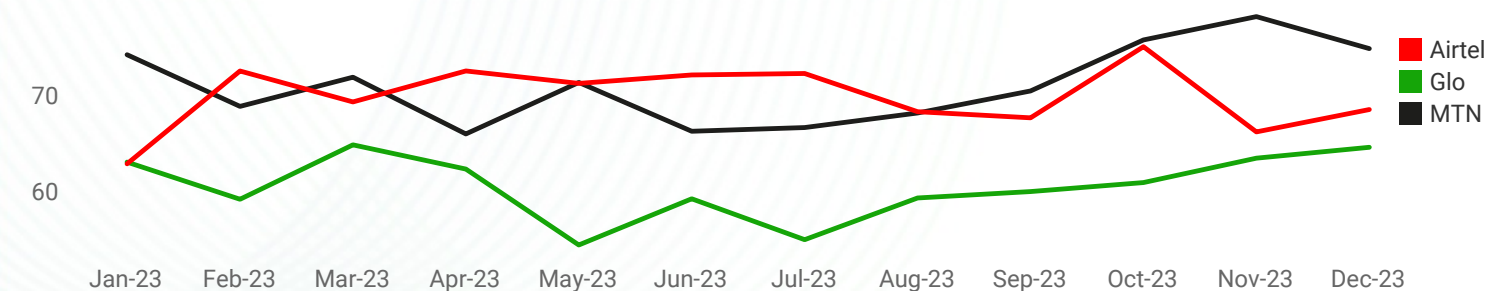
Streaming Performance results ventilation (average)
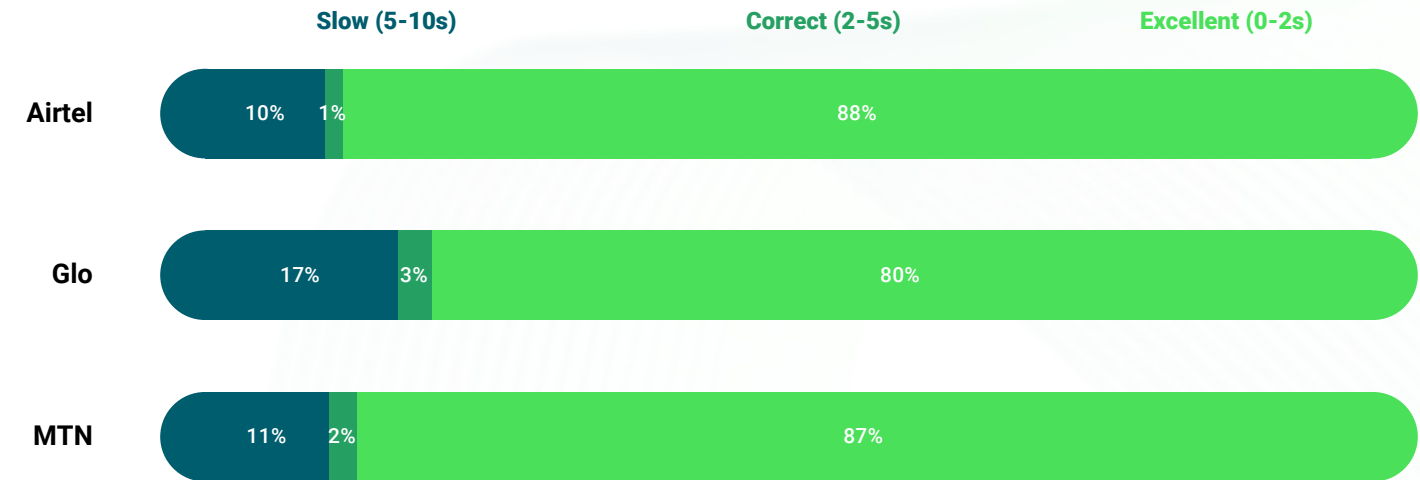
	Slow (5-10s)	Correct (2-5s)	Excellent (0-2s)
Airtel	10%	1%	88%
Glo	17%	3%	80%
MTN	11%	2%	87%

Source : nperf.com

Streaming Performance rate (average)

	Busy Time		Idle Time
Airtel	61.81%		71.97%
Glo	50.04%		63.45%
MTN	65.89%		73.12%

Source : nperf.com

Streaming performance rate (average) evolution over the year

- Airtel
- Glo
- MTN

Source : nperf.com

Download Speed (average)

Airtel — **11.02 Mb/s**

Glo — **5.07 Mb/s**

MTN — **13.97 Mb/s**
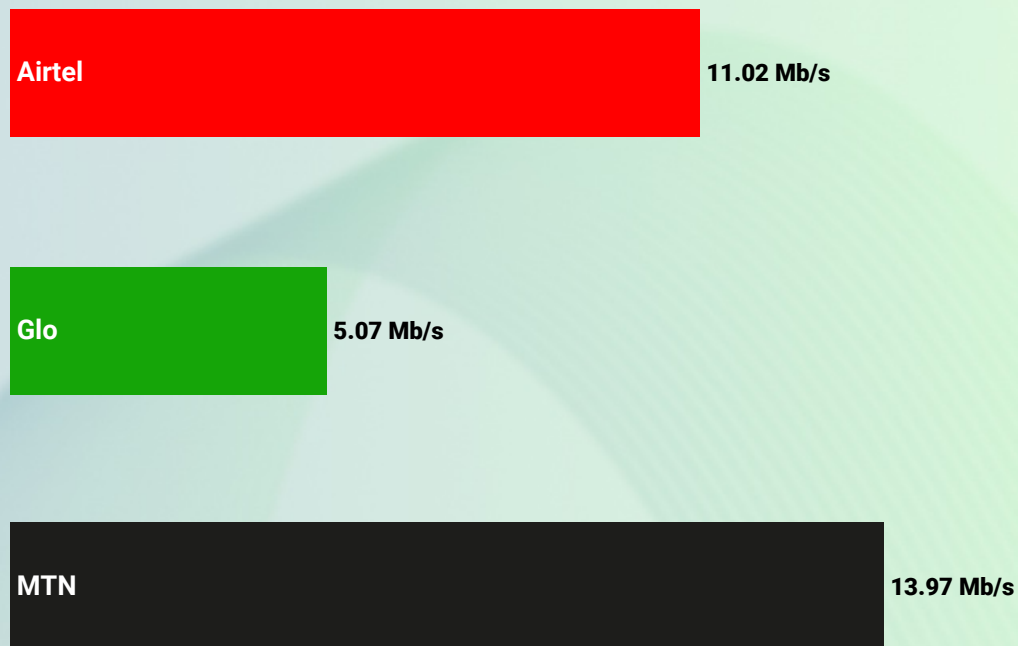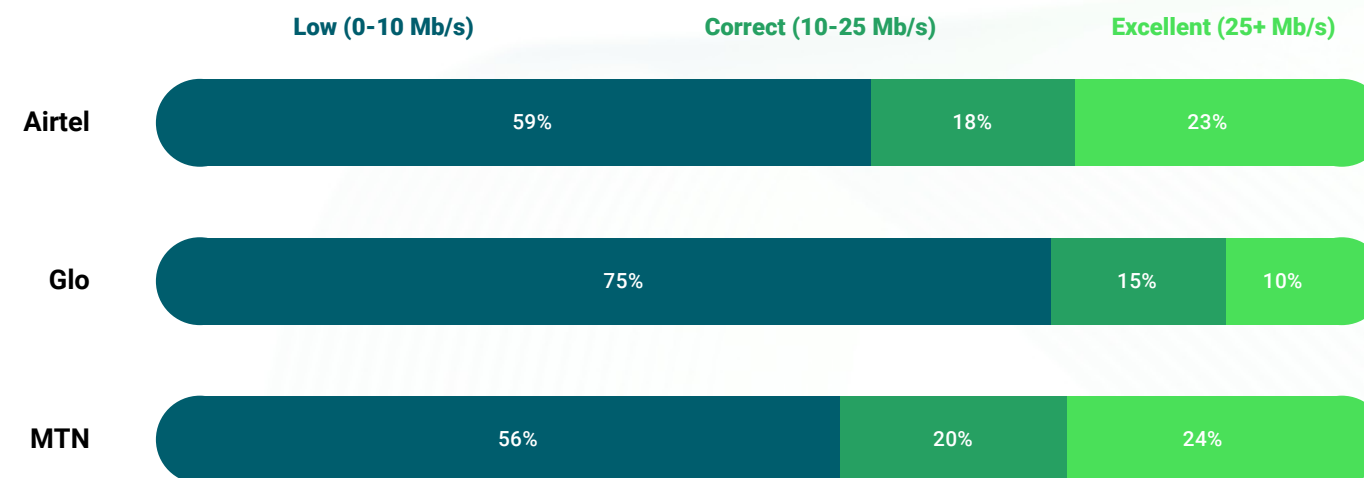
Source : nperf.com

The subscribers of MTN enjoyed the best average mobile Internet download speed in 2023.
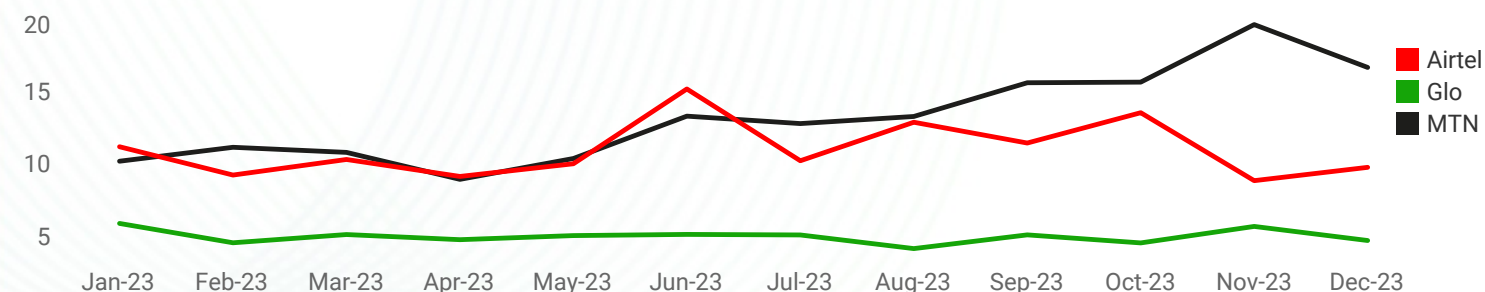
Download Speed results ventilation (average)

Low (0-10 Mb/s) Correct (10-25 Mb/s) Excellent (25+ Mb/s)

	Low	Correct	Excellent
Airtel	59%	18%	23%
Glo	75%	15%	10%
MTN	56%	20%	24%

Source : nperf.com

Download Speed (average)

	Busy Time		Idle Time
Airtel	8.22 Mb/s		12.02 Mb/s
Glo	3.15 Mb/s		5.60 Mb/s
MTN	10.78 Mb/s		14.98 Mb/s

Source : nperf.com

Download Speed evolution over the year (average)

Legend: Airtel (red), Glo (green), MTN (black)

Source : nperf.com

Upload Speed (average)

Airtel **3.94 Mb/s**

Glo **2.37 Mb/s**

MTN **6.17 Mb/s**
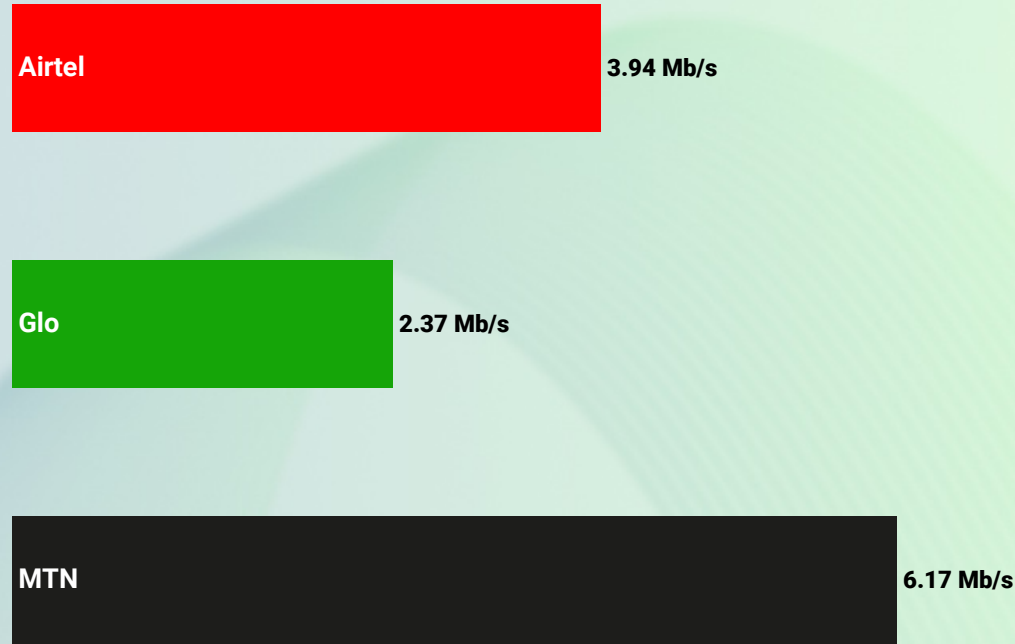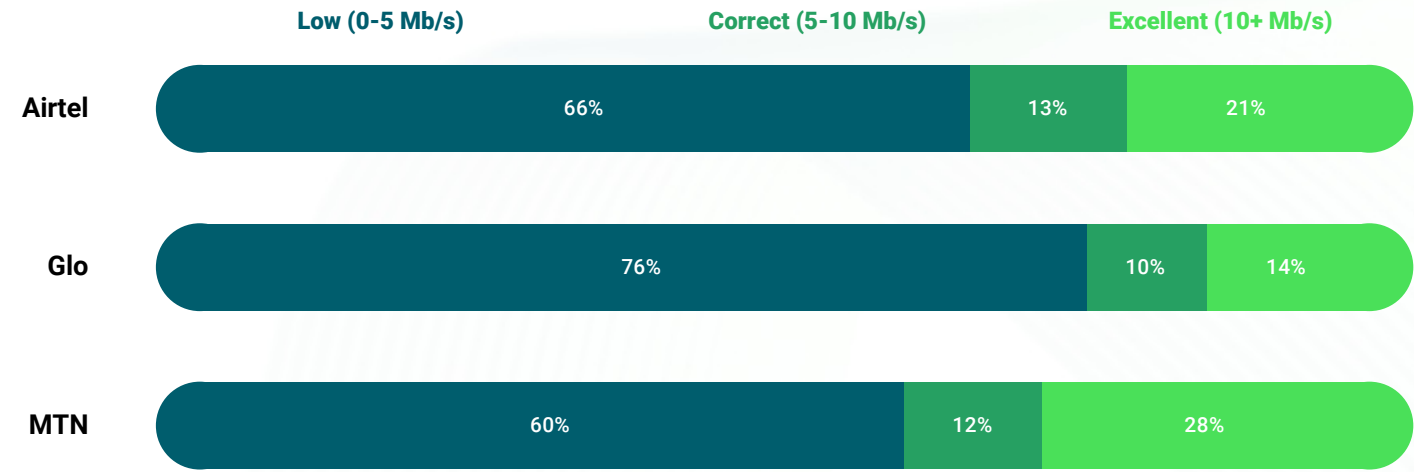
Source : nperf.com

The subscribers of MTN enjoyed the best average mobile Internet upload speed in 2023.

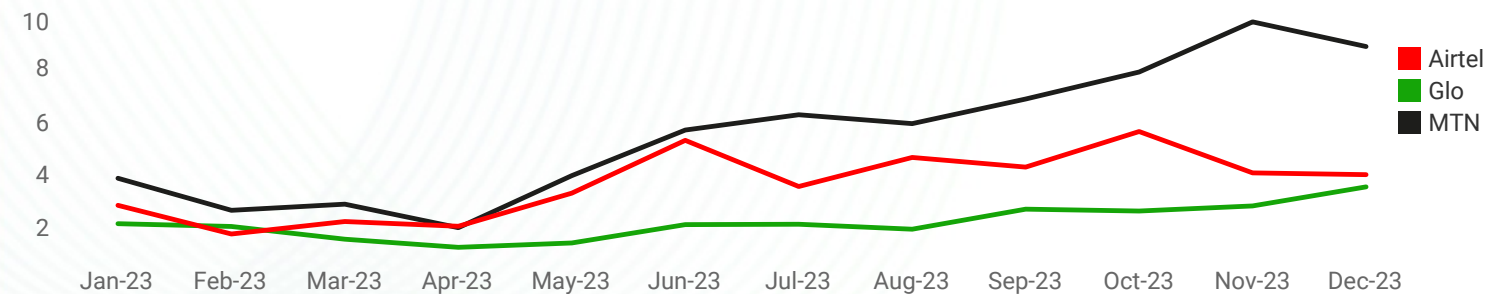## Upload Speed results ventilation (average)

	Low (0-5 Mb/s)	Correct (5-10 Mb/s)	Excellent (10+ Mb/s)
Airtel	66%	13%	21%
Glo	76%	10%	14%
MTN	60%	12%	28%

Source : nperf.com

Upload Speed (average)

	Busy Time		Idle Time
	3.00 Mb/s	Airtel	**4.28 Mb/s**
	1.84 Mb/s	Glo	**2.52 Mb/s**
	4.93 Mb/s	MTN	**6.57 Mb/s**

Source : nperf.com

Upload Speed evolution over the year (average)

Legend: Airtel (red), Glo (green), MTN (black)

Source : nperf.com

Speed : Latency

Latency Speed (average)

Airtel — **132.84 ms**

Glo — **137.77 ms**

MTN — **127.68 ms**

The subscribers of MTN enjoyed the best average mobile Internet latency speed in 2023.

Latency Speed results ventilation (average)

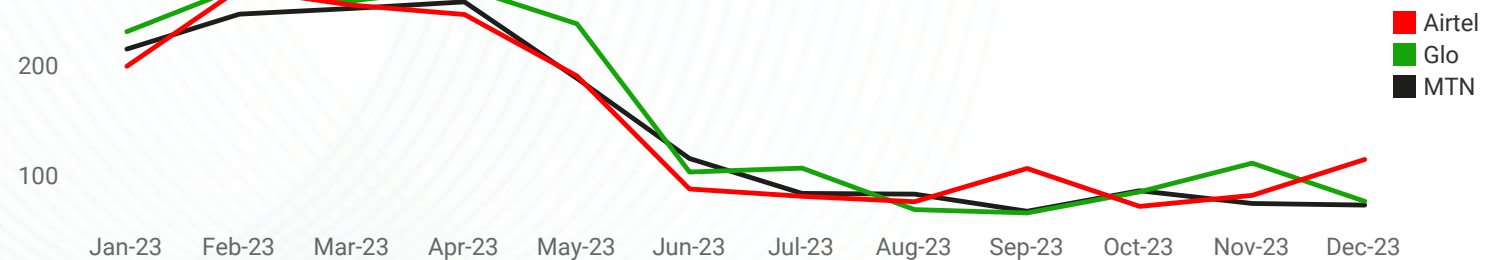|	Slow (100+ ms)	Correct (30-100 ms)	Excellent (0-30 ms)
Airtel	55%	34%	10%
Glo	62%	31%	7%
MTN	56%	30%	14%

Latency Speed (average)

	Busy Time		Idle Time
Airtel	144.75 ms		129.44 ms
Glo	138.09 ms		137.70 ms
MTN	136.05 ms		125.43 ms
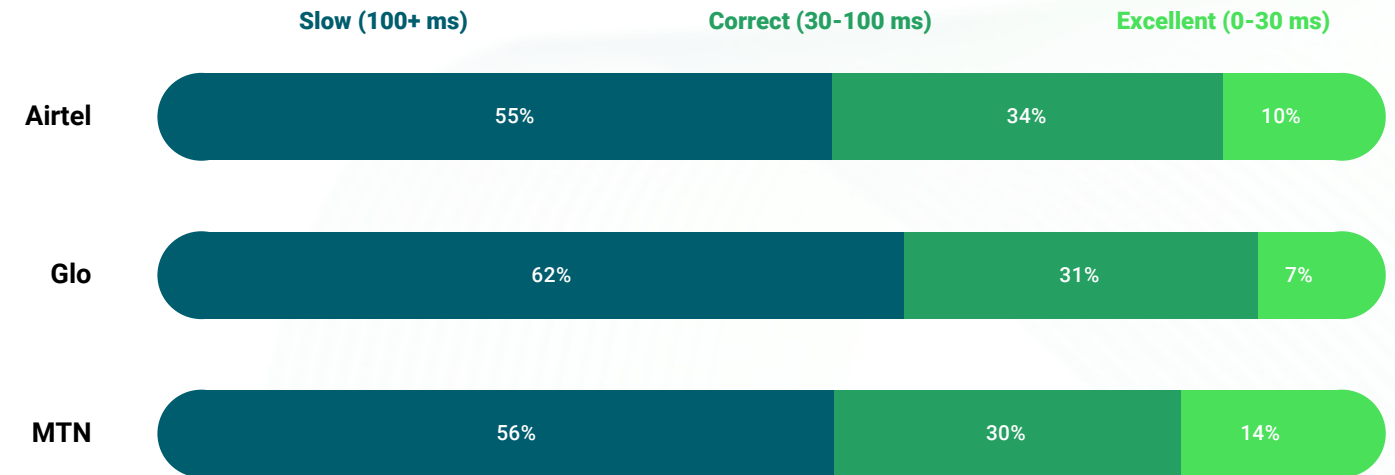
Latency Speed evolution over the year (average)

Legend: Airtel (red), Glo (green), MTN (black)

Y-axis: 200, 100

X-axis: Jan-23, Feb-23, Mar-23, Apr-23, May-23, Jun-23, Jul-23, Aug-23, Sep-23, Oct-23, Nov-23, Dec-23

Mobile Internet performance in Nigeria

nPerf Score (nPoints)

Airtel — 29 256

Glo — 17 540

MTN — 34 630

Source : nperf.com

The subscribers of MTN enjoyed the best mobile Internet performances in Nigeria during 2023.

The nperf score takes into account the measured bitrates, the latency and the Qoe tests. The value of the points for the rates and the latency is calculated on a logarithmic scale, to better represent the perception of the user.

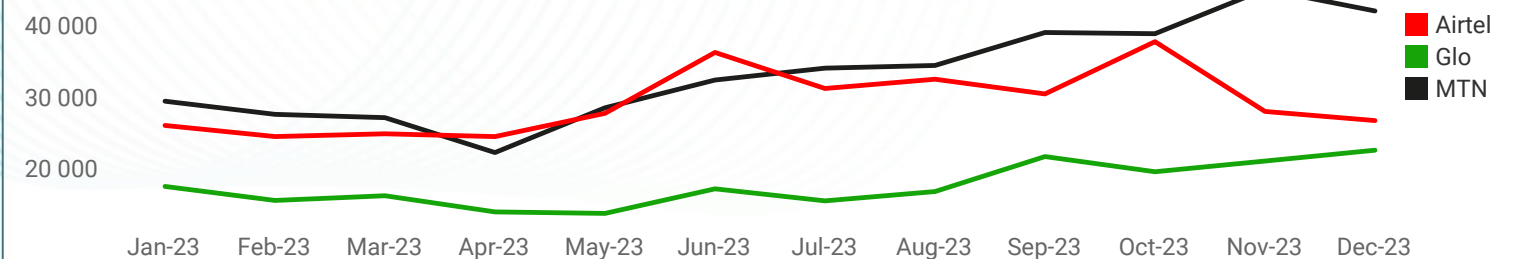Thus, this score reflects the overall quality of the connection experienced by the user.

Source : nperf.com

Best mobile Internet performance in 2023

MOBILE NETWORK No.1 PERFORMANCE

Source : nperf.com

nPerf score evolution over the year (average)

Legend:
- Airtel (red)
- Glo (green)
- MTN (black)

Source : nperf.com