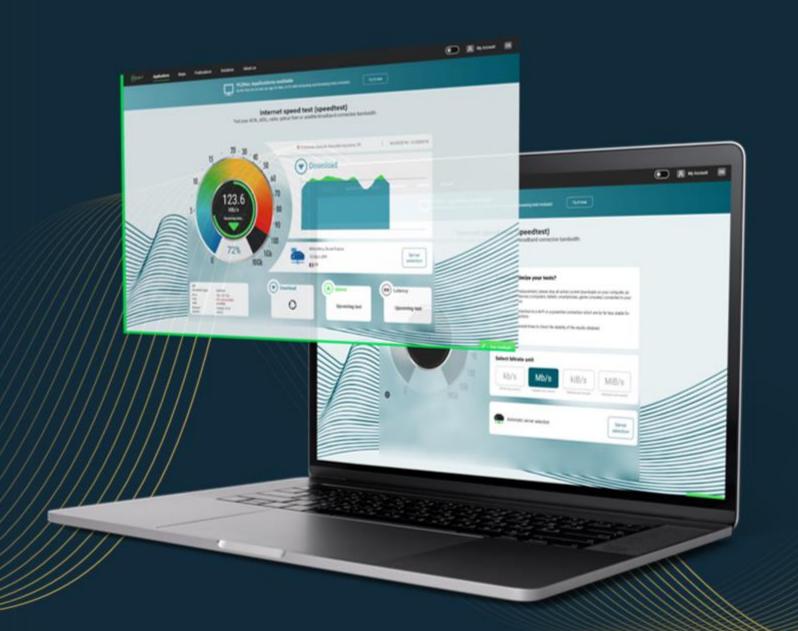
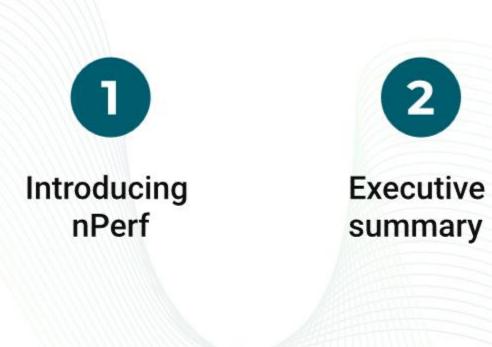
Barometer of fixed Internet connections in Romania

01/01/2024 - 12/31/2024













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.







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!







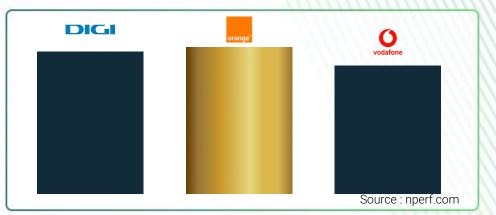
2. Executive Summary



The subscribers of Orange enjoyed the best fixed Internet performances in 2024.

		Digi Romania	Orange	Vodafone
Download	bitrates (Mb/s)	223,19	359,89	183,43
Upload bi	trates (Mb/s)	205,70	258,02	34,85
▶ Latency (ms)	25,52	32,35	22,61
Web brow	sing (%)	78,79	79,65	77,61
Youtube s	treaming (%)	88,07	87,52	88,46
nPerf Sco	ore (nPoints)	130 490	134 677	117 637







The subscribers of Digi Romania and Orange enjoyed the best FTTH Internet performances in Romania in 2024.

	Digi Romania	Orange	Vodafone	
Download bitrates (Mb/s)	409,61	595,43	239,11	
✓ Upload bitrates (Mb/s)	388,65	430,56	289,51	
◀▶ Latency (ms)	22,30	28,74	26,73	
Web browsing (%)	83,20	83,52	84,19	
Youtube streaming (%)	92,11	92,34	92,71	
√∩↑ nPerf Score (nPoints)				

Source : nperf.com



The subscribers of Orange enjoyed the best WIFI Internet performances in Romania in 2024.

Fixed Internet connection	ns in Romania				
		Digi Romania	Orange	Vodafone	
	Download bitrates (Mb/s)	159,18	270,52	142,41	
	▲ Upload bitrates (Mb/s)	146,86	206,29	23,99	
	◀▶ Latency (ms)	26,26	32,08	22,31	
	Web browsing (%)	80,66	80,78	78,23	
	Youtube streaming (%)	89,56	88,67	88,87	
	nPerf Score (nPoints)	125 866	131 362	112 790	

Source : nperf.com

3. Analysis



Introduction

In 2024, the Romanian fixed-line market is showing significant developments. The current period highlights the dominance of Orange, which has maintained its position as the market leader, with no new entrants taking the lead in 2024. Orange stands out as the sole market winner this year, with Digi Romania and Vodafone featuring prominently in various performance metrics. The focus areas include WiFi and FTTH, where Orange shows strong performance. The market showcases positive trends, particularly in download speeds and browsing capabilities, which are crucial for user experience.

Orange: Market Leader with Exceptional Performance

For the period Q1 2024-Q4 2024, Orange has emerged as the market leader with an impressive nPerf Score. The operator excels in multiple KPI categories, including Download speed, Upload speed, and Browsing. Orange is also the leader in WiFi and FTTH, reinforcing its position as a pioneer in fixed-line technologies. The operator has demonstrated significant improvements, particularly in download speeds, highlighting its commitment to enhancing user experience.

Vodafone: Excellence in Latency and Video Streaming

Vodafone showcases its strengths in Latency and Video Streaming. Although not the market leader, Vodafone has made notable contributions with an improved latency performance, making it a co-leader in this category alongside its strong Video Streaming capabilities. Vodafone's strategic focus on enhancing latency and streaming quality has positioned it well within the competitive landscape.

Digi Romania: Co-leader in Upload and Video Streaming

Digi Romania stands out as a co-leader in both Upload speed and Video Streaming. The operator's robust performance in these areas underscores its competitive edge in the fixed-line market. Digi's commitment to maintaining high upload speeds and exceptional streaming quality ensures its continued relevance and strength in the market.

Conclusion

Orange leads the Romanian fixed-line market with outstanding performance across multiple metrics. Meanwhile, Vodafone and Digi Romania demonstrate significant strengths in specific areas, such as Latency and Video Streaming, respectively. The competitive landscape remains vibrant, with operators continuously pushing the boundaries to deliver superior internet experiences. The market's positive trends in download speeds and browsing capabilities promise a bright future for consumers and operators alike.

4. Methodology



nPerf provides a free application 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.

We assess:

Download birate

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 birate

Indicates the amount of data your connection can send in one second to 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 perceived quality by the user.

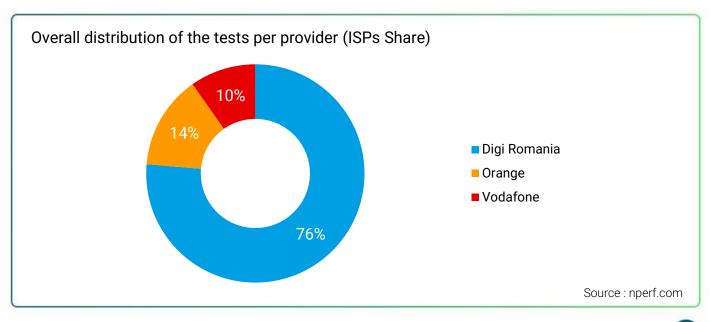
Streaming performance

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 perceived quality by the user.

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, 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.

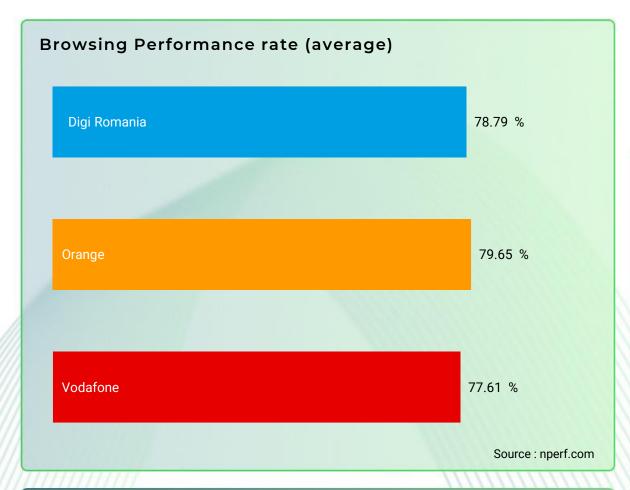
We only include national Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.



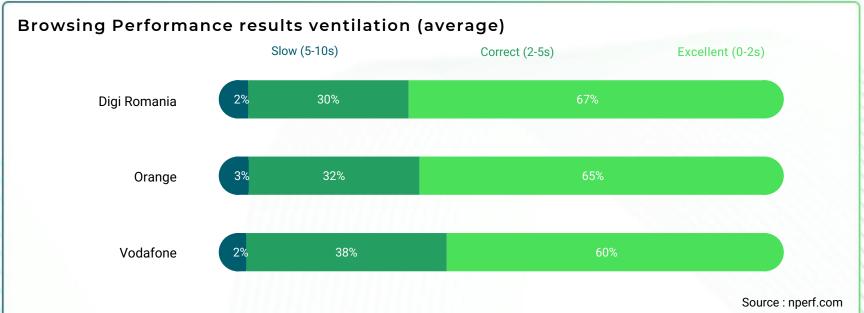


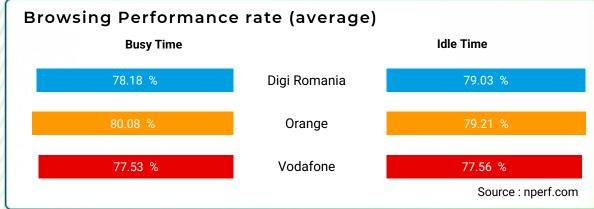
Quality of Experience: Browsing

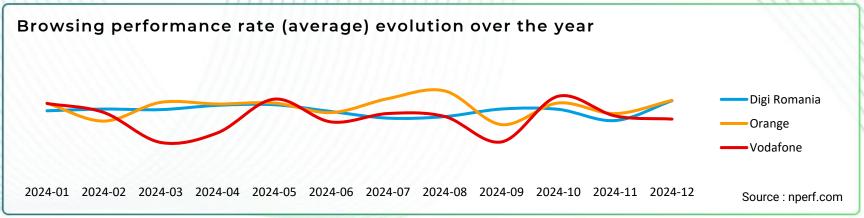




The subscribers of Orange enjoyed the best fixed Internet browsing performance in 2024.



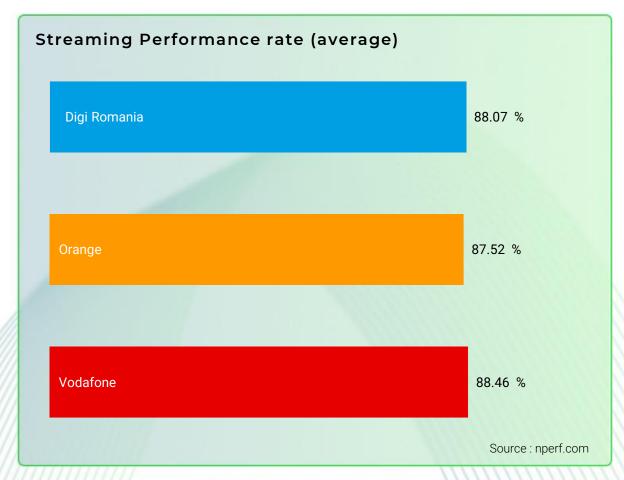




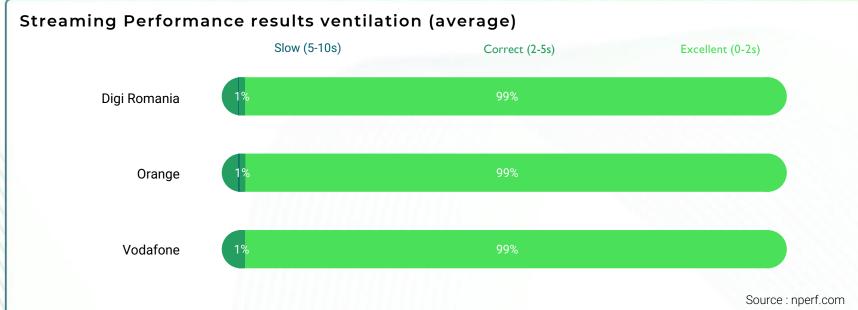


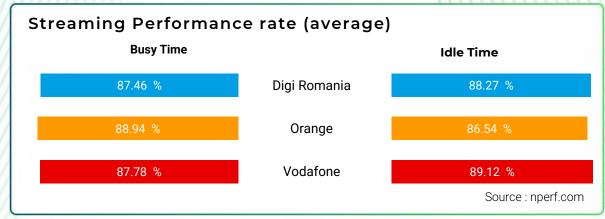
Quality of Experience: Streaming

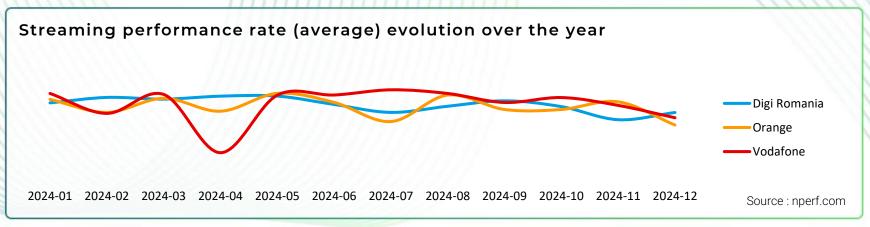




The subscribers of Digi Romania and Vodafone enjoyed the best fixed Internet streaming performance in 2024.



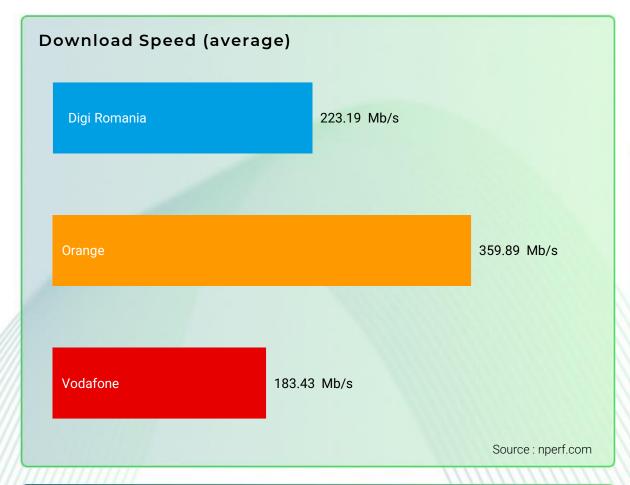




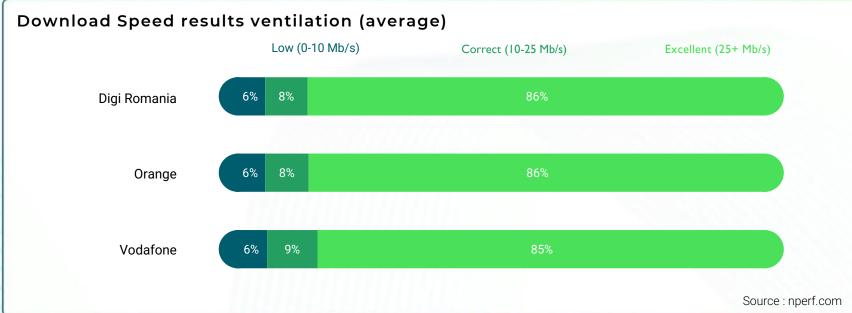


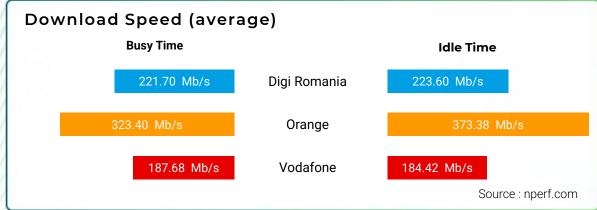
Speed: Download

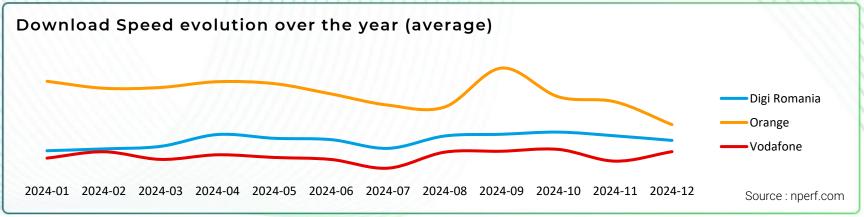




The subscribers of Orange enjoyed the best average fixed Internet download speed in 2024.



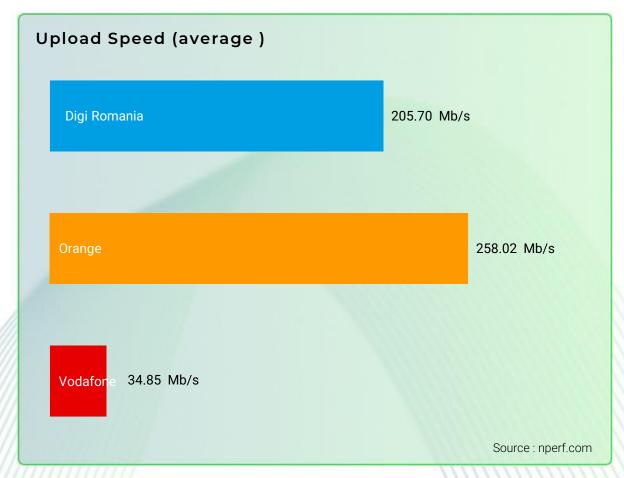




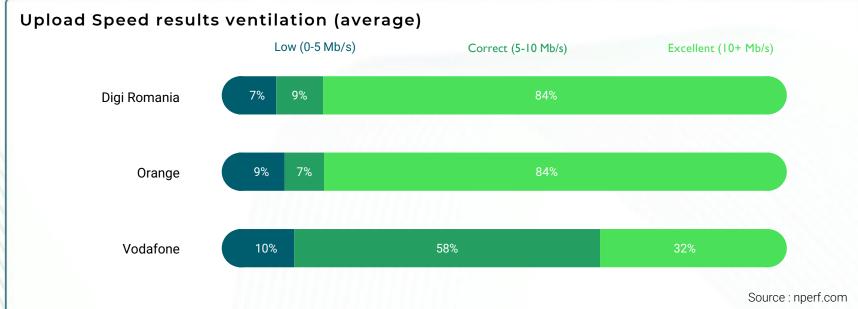


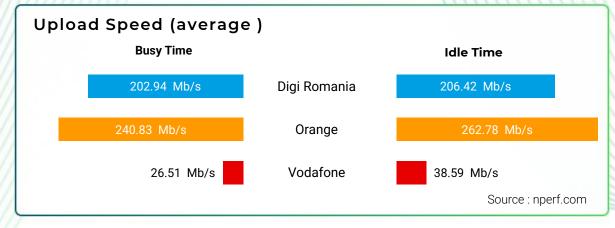
Speed: Upload

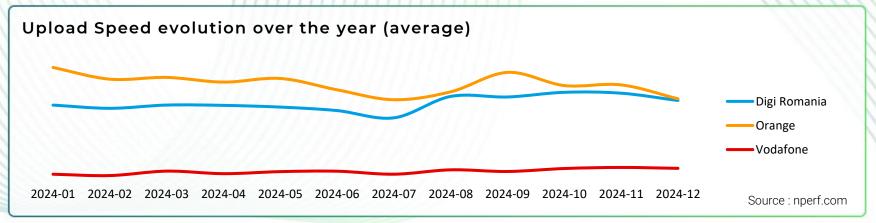




The subscribers of Orange enjoyed the best average fixed Internet upload speed in 2024.



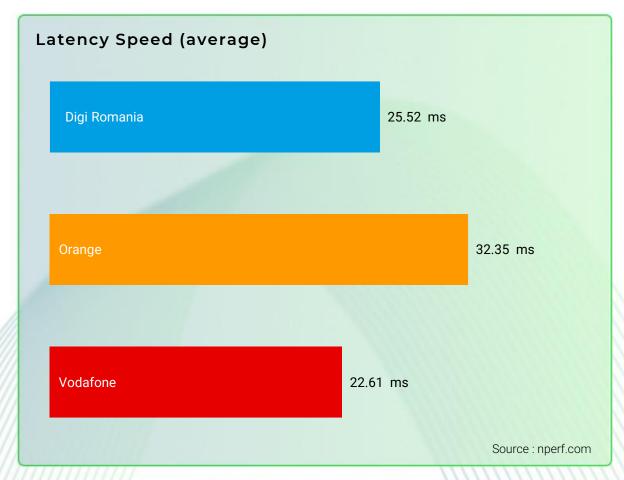




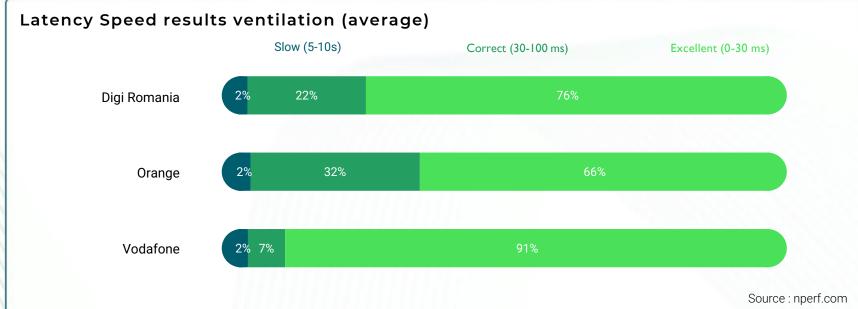


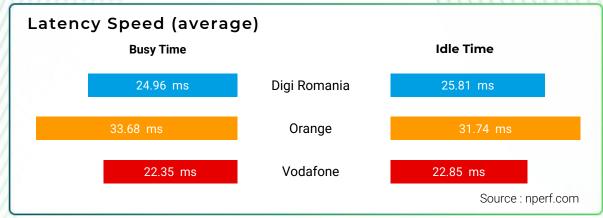
Speed: Latency

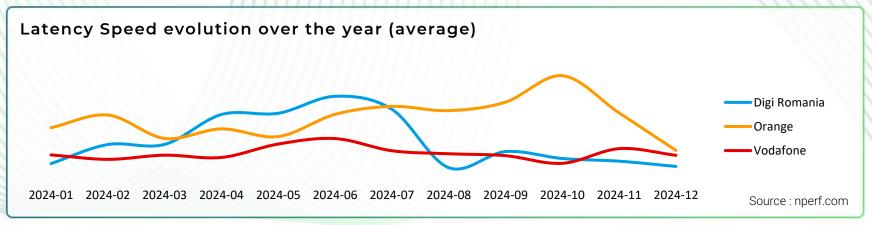




The subscribers of Vodafone enjoyed the best average fixed Internet latency speed in 2024.

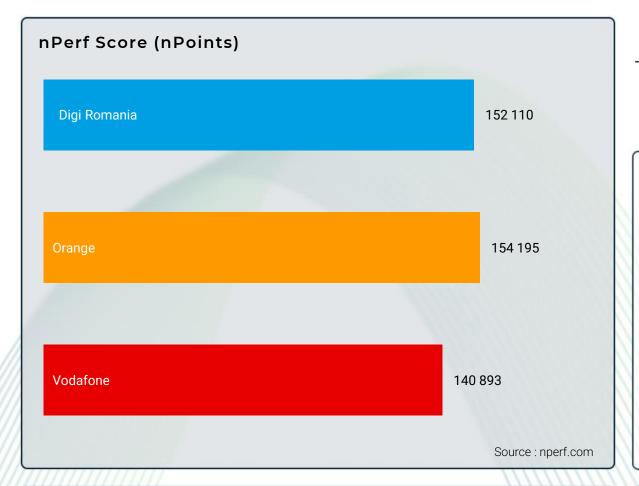






Fixed Internet performance in Romania

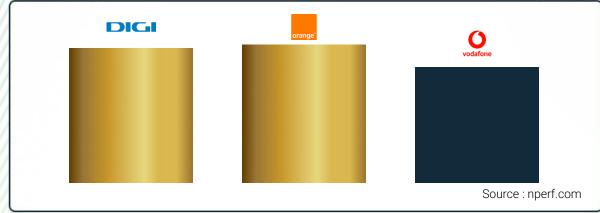


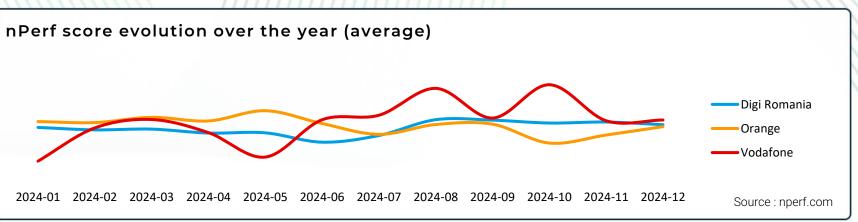


The subscribers of Digi Romania and Orange enjoyed the best FTTH Internet performances in 2024.

- Best performances FTTH: Digi Romania and Orange
- Best web browsing performances FTTH: Orange and Vodafone
- Best video streaming performances FTTH: Digi Romania, Orange and Vodafone
- Fastest performances (Download) FTTH: Orange
- Fastest performances (Upload) FTTH: Orange
- FTTH connections with the lowest latency: Digi Romania

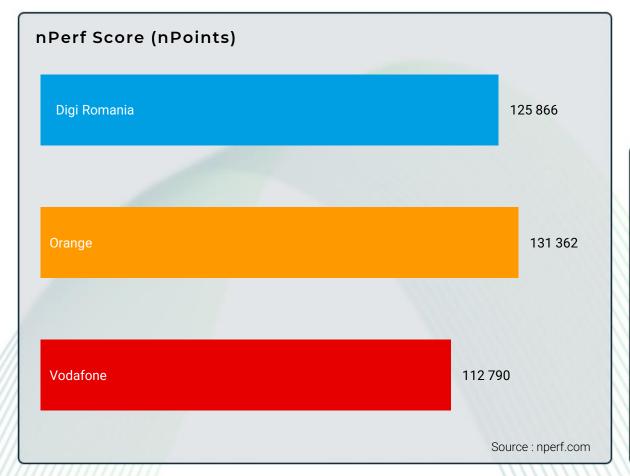
Source : nperf.com





Fixed Internet performance in Romania

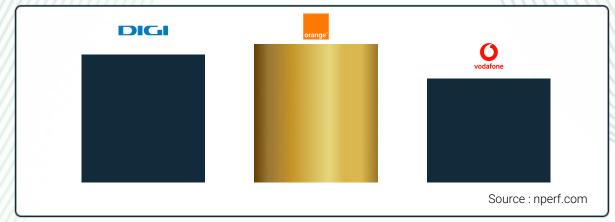


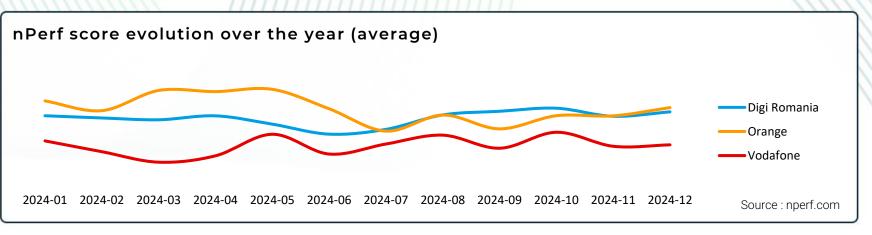


The subscribers of Orange enjoyed the best WIFI Internet performances in Romania in 2024.

- Best performances WIFI: Orange
- Best web browsing performances WIFI: Digi Romania and Orange
- Best video streaming performances WIFI: Digi Romania and Vodafone
- Fastest performances (Download) WIFI: Orange
- Fastest performances (Upload) WIFI: Orange
- WIFI connections with the lowest latency: Vodafone

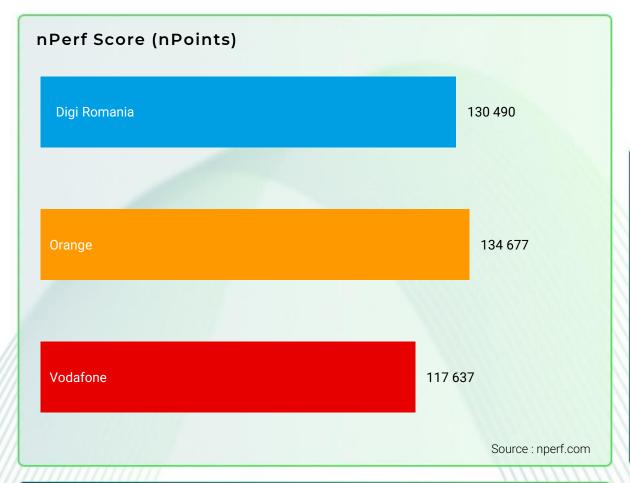
Source: nperf.com





Fixed Internet performance in Romania





The subscribers of Orange enjoyed the best fixed Internet performances in 2024.

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



