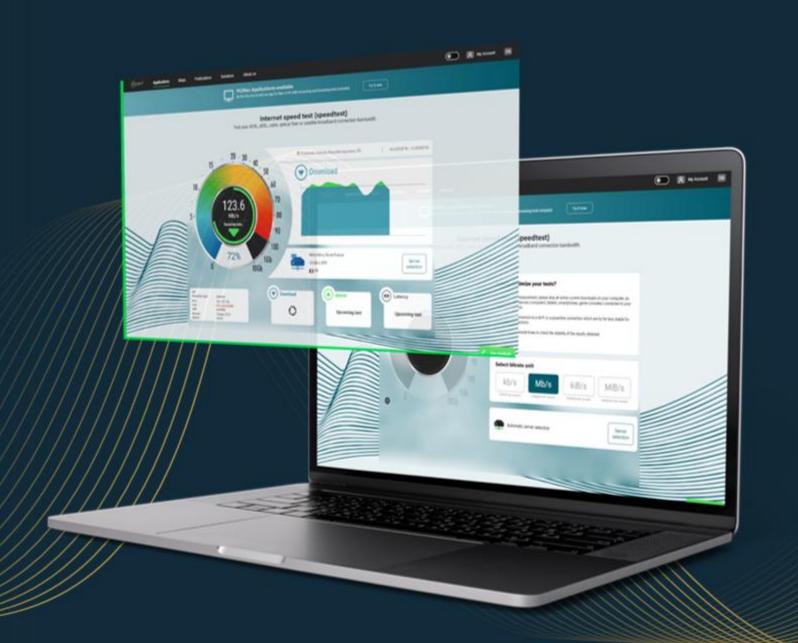
Barometer of fixed Internet connections in Spain

01/01/2024 - 12/31/2024













**Executive** summary

**Analysis** 



Methodology



nPerf Network assesment

## 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!







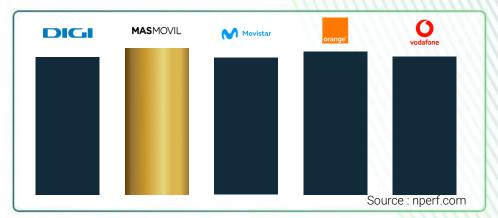
# 2. Executive Summary



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

		Digi	MasMovil	Movistar	Orange	Vodafone
•	Download bitrates (Mb/s)	310,38	262,78	253,42	279,74	250,70
_	Upload bitrates (Mb/s)	282,88	254,06	228,11	247,90	173,86
<b>•</b>	Latency (ms)	23,93	18,58	28,05	23,00	22,33
	Web browsing (%)	74,29	79,37	78,14	78,45	78,12
<b>©</b>	Youtube streaming (%)	85,46	89,51	88,79	89,50	88,35
[U]	nPerf Score (nPoints)	132 065	140 581	131 370	137 229	132 725







The subscribers of Digi enjoyed the best FTTH Internet performances in Spain in 2024.

ced Internet conne							
		Digi	MasMovil	Movistar	Orange	Vodafone	
	Download bitrates (Mb/s)	497,68	395,76	435,28	452,03	397,67	
	▲ Upload bitrates (Mb/s)	476,11	399,72	404,33	414,97	345,45	
	<b>◀▶</b> Latency (ms)	15,97	15,80	22,30	19,13	17,05	
	Web browsing (%)	82,54	82,24	82,76	82,48	82,77	
	Youtube streaming (%)	92,10	92,34	93,88	92,99	92,62	
	nPerf Score (nPoints)	160 607	156 340	154 384	156 497	155 085	

Source : nperf.com



The subscribers of Digi and MasMovil enjoyed the best WIFI Internet performances in Spain in 2024.

Digi   MasMovil   Movistar   Orange   Vodafone     ✓ Download bitrates (Mb/s)   225,38   204,49   180,27   212,13   168,73     ✓ Upload bitrates (Mb/s)   216,08   196,30   158,86   177,75   128,10     ✓ Latency (ms)   22,63   19,52   29,63   24,72   24,58	204,49 180,27 212,13 168,73   196,30 158,86 177,75 128,10   19,52 29,63 24,72 24,58
Image: Approximation of the properties of the proper	19,52 29,63 24,72 24,58
Webber 100	<b>79.69 78.59 79.13 78.48</b>
Web browsing (%) 79,40 79,69 78,59 79,13 78,48	75/10
Youtube streaming (%) 89,40 89,87 89,28 90,05 88,68	<b>89,87 89,28 90,05 88,68</b>

Source : nperf.com

### 3. Analysis



#### Introduction

In 2024, MasMovil and Digi have emerged as co-leaders. This marks a shift from the previous period, indicating a change in sector dynamics. MasMovil has joined the ranks as a leader, showcasing its competitive edge. The sector has seen a variety of leaders across different KPIs and focus areas, including MasMovil's dominance in latency and browsing, and Digi's continued strength in download and upload speed.

### MasMovil: Co-leader and domination in latency and browsing.

MasMovil has secured its position as a co-leader with a robust performance. For the period analyzed, MasMovil achieved a remarkable global score, excelling particularly in latency and browsing. The operator's latency performance stands out as the best, and it also leads in browsing, demonstrating its strong presence in these areas. MasMovil's focus on FTTH and WIFI further reinforces its leadership, underlining its significant contribution.

### Digi: Co-leader and excellence in download and upload speed.

Digi continues to be a co-leader, maintaining its stronghold in download and upload speed. Its consistent performance in these categories highlights its technical superiority and commitment to delivering high-speed Internet. Digi's focus on FTTH demonstrates its strategic emphasis on fiber technology, ensuring it remains a significant player in the fixed-line Internet.

### Orange: Excellence in browsing and video streaming.

Orange has shown excellence in browsing and video streaming, positioning itself as a key competitor in these categories. Its performance in video streaming, in particular, is

noteworthy, making it a preferred choice for consumers seeking high-quality media experiences. Orange's focus on WIFI technology further enhances its sector offering, contributing positively to the overall sector landscape.

### Vodafone: Strong performance in video streaming.

Vodafone has demonstrated a strong performance in video streaming, earning recognition for its capabilities in this area. This achievement reinforces its reputation for providing reliable and high-quality streaming experiences. Vodafone's dedication to improving its offerings makes it a formidable competitor in the fixed-line Internet.

### Movistar: Solid overall performance.

Movistar has delivered a solid overall performance, showing consistent results across various KPIs. While not leading in specific categories, its balanced approach ensures it remains a competitive force in the sector. Movistar's ongoing efforts to enhance its service offerings contribute positively to the industry.

#### Conclusion

The fixed-line Internet sector in Spain sees MasMovil and Digi as co-leaders, each excelling in distinct areas. MasMovil leads in latency and browsing, while Digi dominates in download and upload speed. Orange and Vodafone also play crucial roles with their strengths in browsing and video streaming, respectively. This competitive landscape highlights the dynamic nature of the sector, with operators continuously striving to enhance their services and deliver superior Internet experiences to consumers.

### 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.

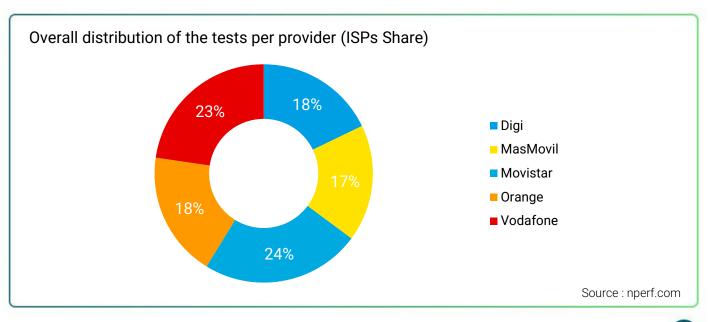
### Streaming performance

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 1% 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.

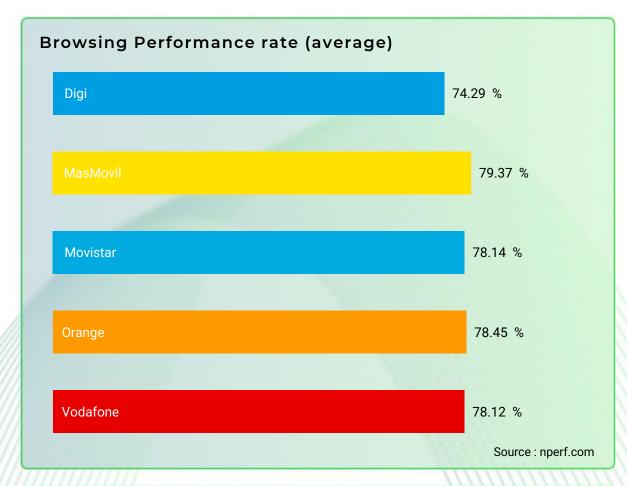
We only include national Internet service providers with test share above 5% share. The chart below shows the overall test distribution for each service provider.



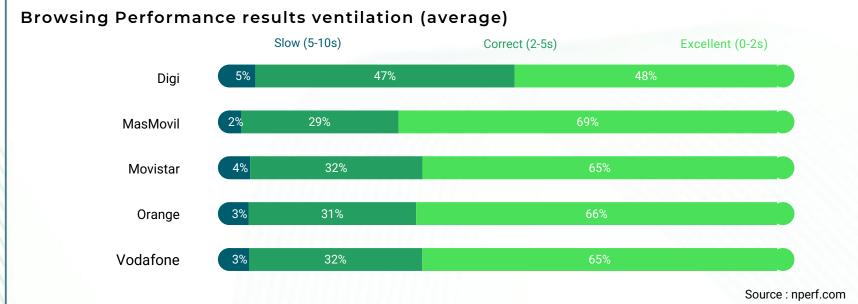


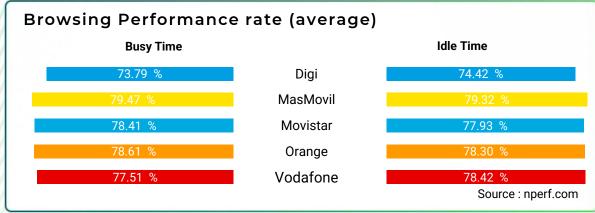
## **Quality of Experience: Browsing**

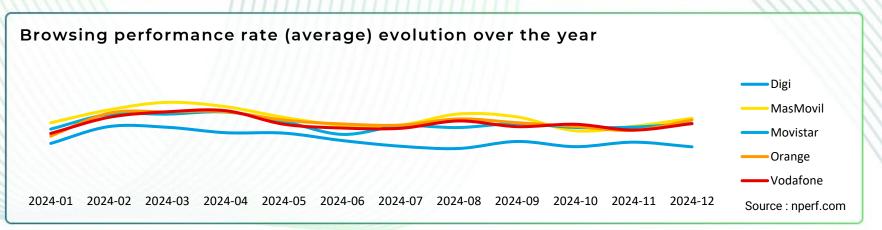




The subscribers of MasMovil enjoyed the best fixed Internet browsing performance in 2024.



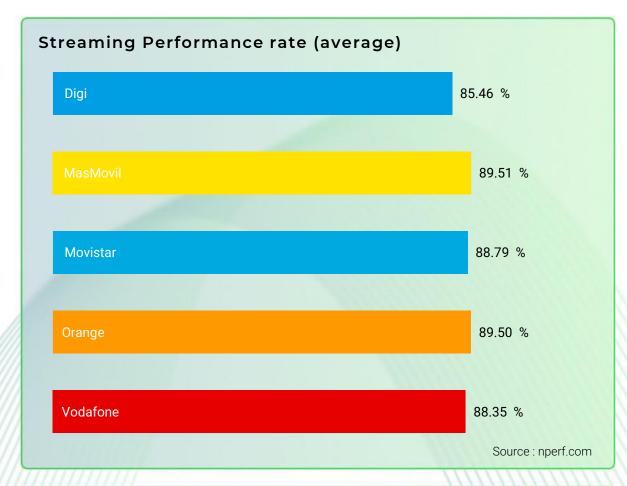




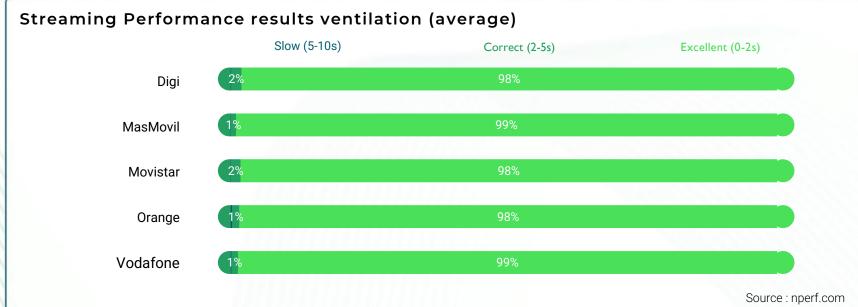


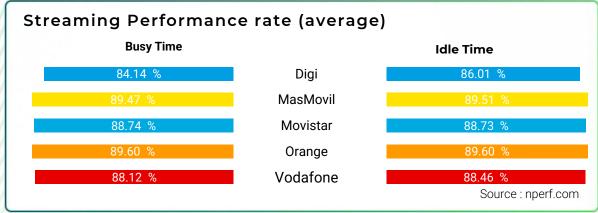
### **Quality of Experience: Streaming**

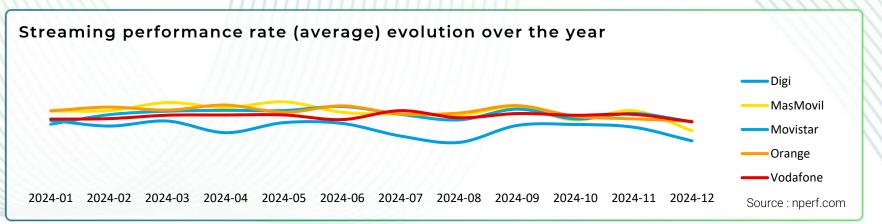




The subscribers of MasMovil and Orange enjoyed the best fixed Internet streaming performance in 2024.



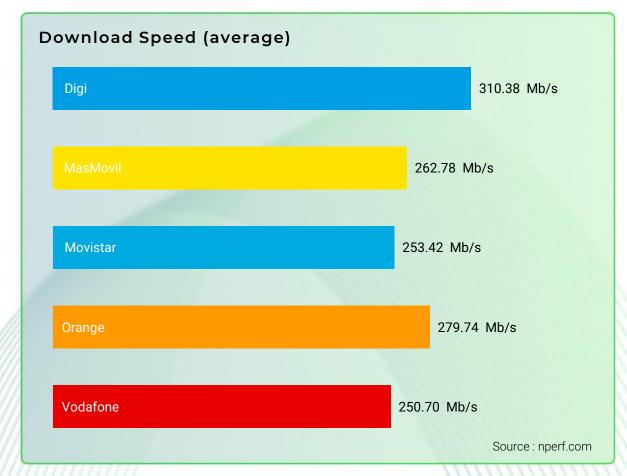




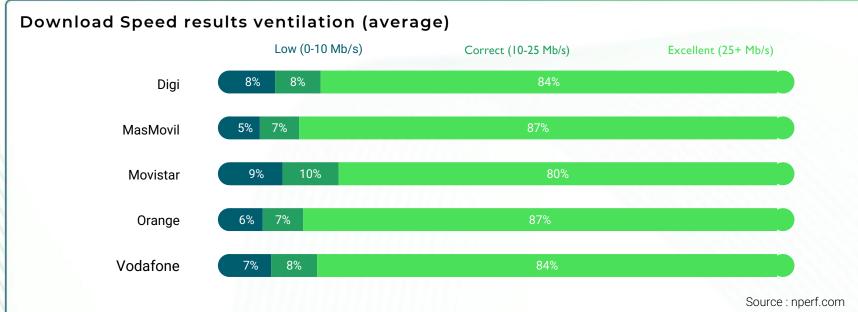


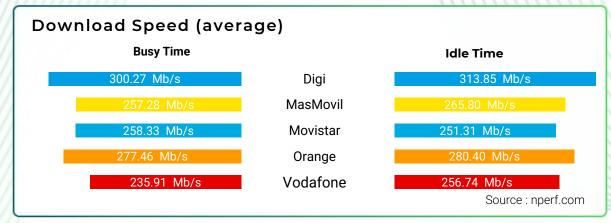
## Speed: Download

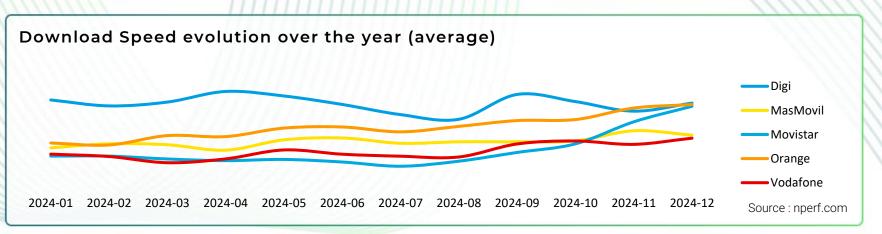




The subscribers of Digi enjoyed the best average fixed Internet download speed in 2024.



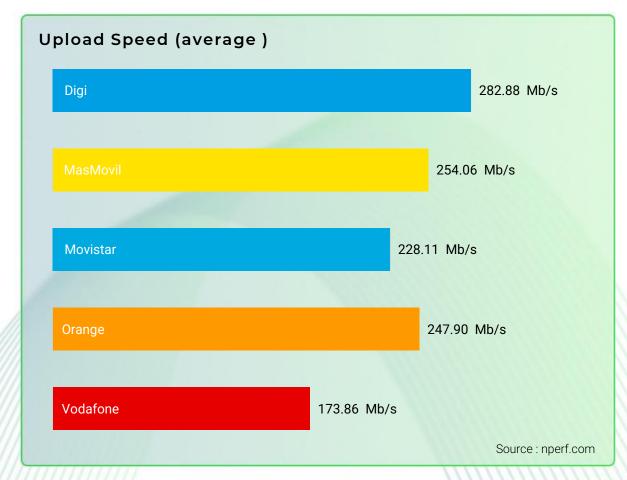




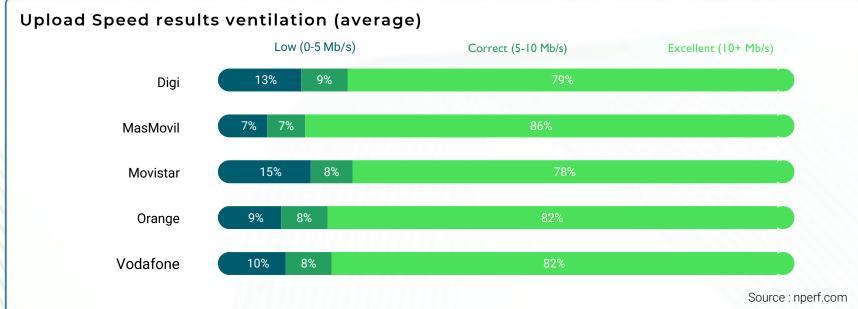


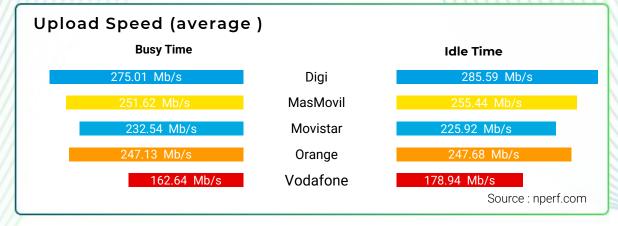
## Speed: Upload

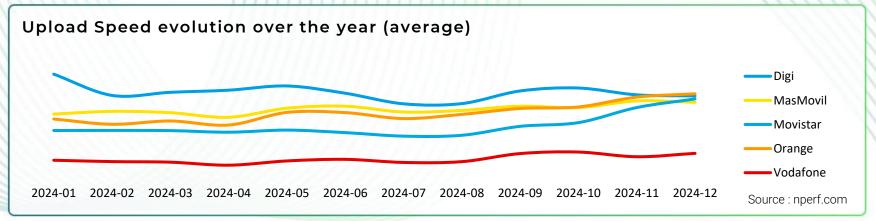




The subscribers of Digi enjoyed the best average fixed Internet upload speed in 2024.



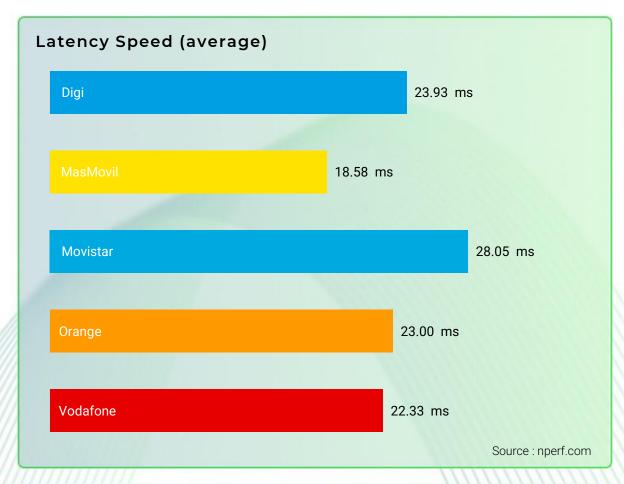




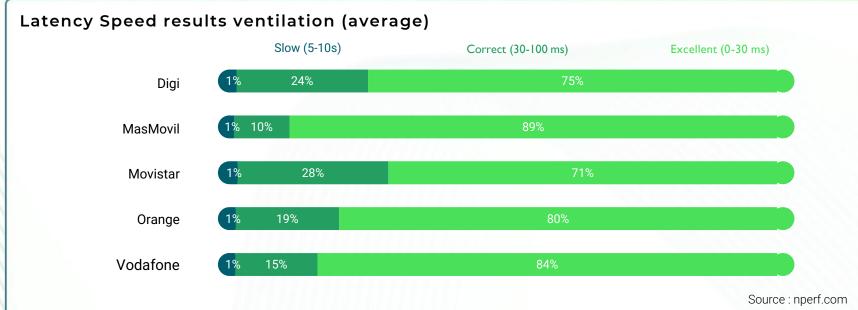


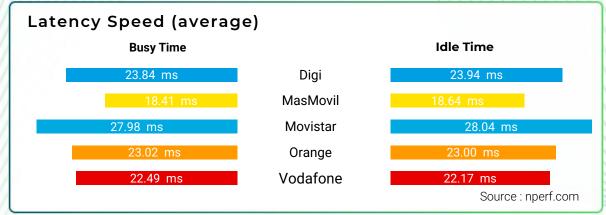
# Speed: Latency

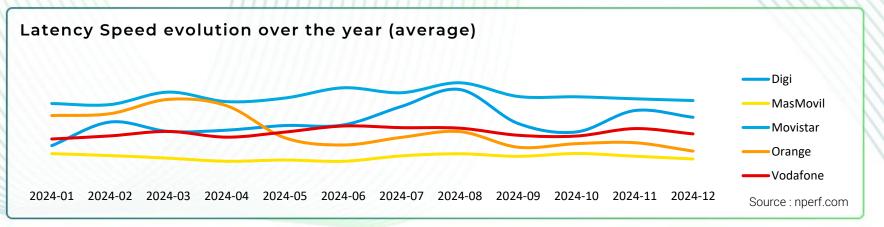




The subscribers of MasMovil enjoyed the best average fixed Internet latency speed in 2024.

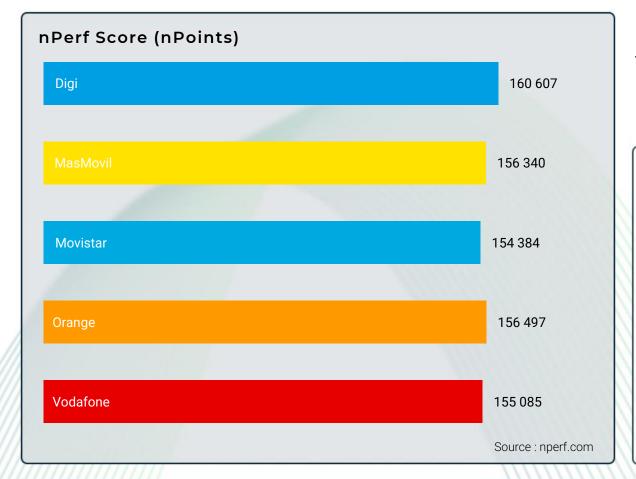






# Fixed Internet performance in Spain

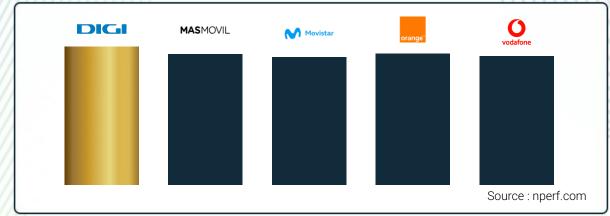


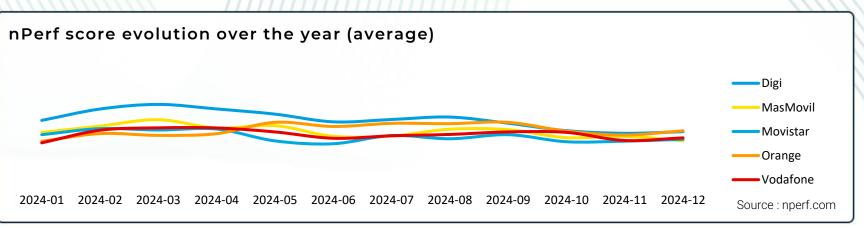


The subscribers of Digi enjoyed the best FTTH Internet performances in 2024.

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

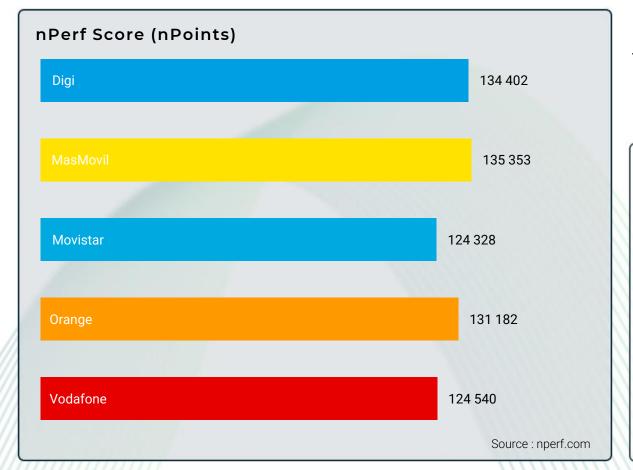
Source : nperf.com





# Fixed Internet performance in Spain

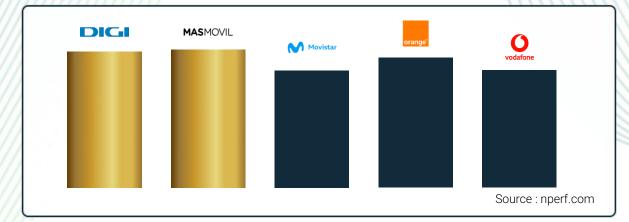


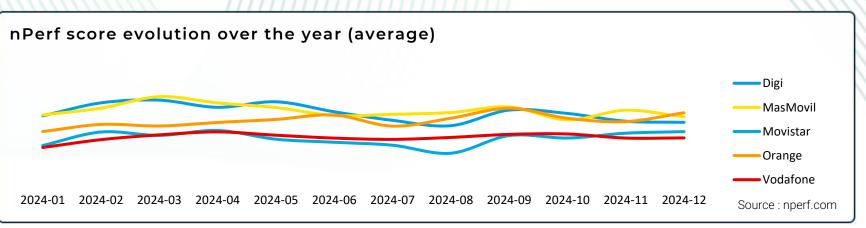


The subscribers of Digi and MasMovil enjoyed the best WIFI Internet performances in Spain in 2024.

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

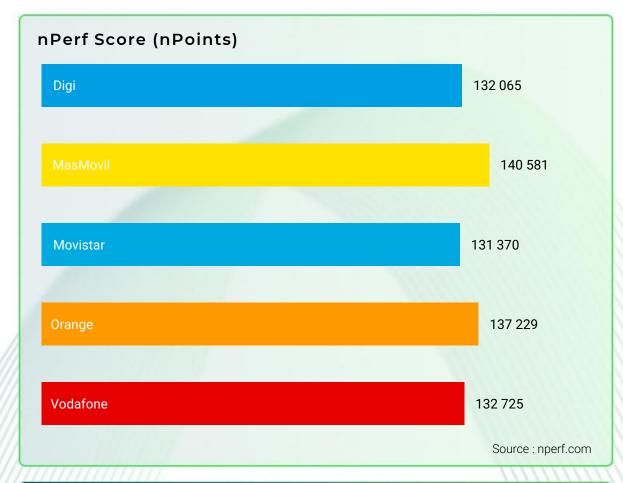
Source: nperf.com





# Fixed Internet performance in Spain





The subscribers of MasMovil 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



