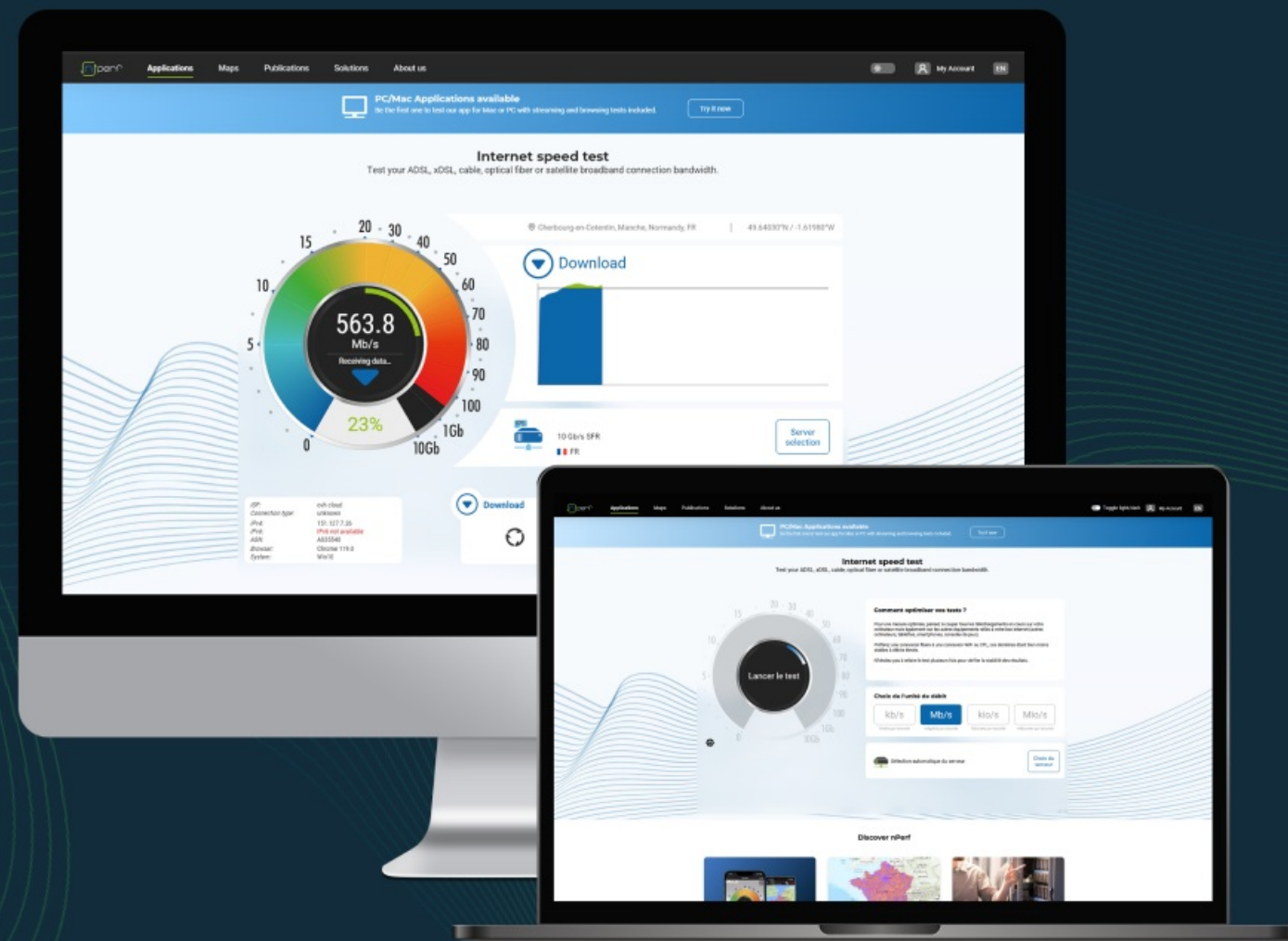




# Barometer of fixed Internet Connections in Bosnia and Herzegovina.

01/01/2023 - 31/12/2023



**1**

**Introducing  
nPerf**

**2**

**Executive  
summary**

**3**

**Analysis**

**4**

**Methodology**

**5**

**nPerf Network  
assessment**

## 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.

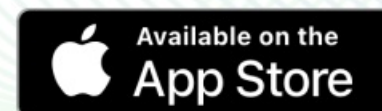
 **300k+** tests daily worldwide.

 **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!  
Download our app or visit our website!



## 2. Executive Summary



The subscribers of Telemach enjoyed the best broadband performances in Bosnia and Herzegovina during 2023.

### Fixed Internet connections in Bosnia and Herzegovina

	BH Telecom	HT	Mtel	Telemach
▼ Download bitrates (Mb/s)	15.70	20.35	26.91	90.85
▲ Upload bitrates (Mb/s)	3.89	4.93	10.78	13.42
◀▶ Latency (ms)	64.26	58.78	41.85	41.96
nPerf Score (nPoints)	67 837	74 874	90 651	111 459

Source : nperf.com

**telemach**

Best fixed Internet performance in 2023



Source : nperf.com



Source : nperf.com

In Bosnia and Herzegovina, the telecom landscape is characterized by a competitive environment among several key players, each striving to offer better services in terms of speed, reliability, and coverage.

### **Telemach : The market leader**

With impressive download speeds of 91 Mb/s and upload speeds of 13 Mb/s, ensuring high-quality streaming, gaming, and large data uploads with ease. The latency of 42 ms matches that of Mtel, indicating a similarly smooth online experience. The highest nPerf score among the competitors at 111,459 confirms Telemach's superior performance and reliability.

### **Mtel : a strong competitor**

Mtel stands out with a download speeds of 27 Mb/s and an upload speeds of 11 Mb/s. The lower latency of 42 ms offers a more responsive internet experience, crucial for seamless streaming and gaming. With an nPerf score of 90,651, Mtel showcases its strong performance in the market.

HT : offers a competitive service

### **HT : offers a competitive service**

HT shows a slight improvement over BH Telecom, offering download speeds of 20 Mb/s and upload speeds of 5 Mb/s. The reduced latency of 59 ms suggests a smoother online experience, potentially benefiting real-time applications slightly better than its competitor. An nPerf score of 74,874 reflects its commitment to providing a competitive service.

### **BH Telecom : room for improvement**

BH Telecom presents a download speeds of 16 Mb/s and upload speeds of 4 Mb/s, which may cater to basic internet needs such as browsing and standard-definition streaming. However, with a latency of 64 ms, users might experience some delays in high-demand activities like online gaming or video conferencing. The nPerf score of 67,837 points towards a reliable service but indicates room for improvement, especially in enhancing upload speeds and reducing latency.

## 4. Methodology



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 fixed 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) :

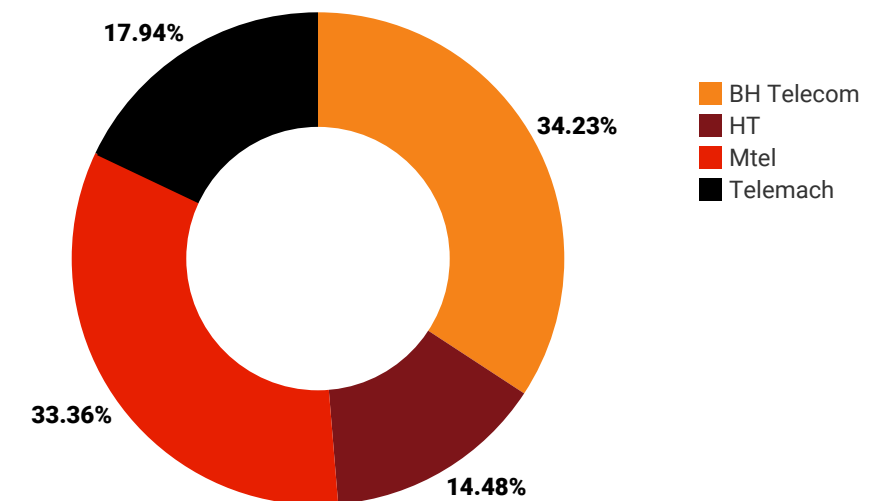
It indicated the delay a small packet of data requires to make a round-trip from your computer to the nPerf server. The shorter the delay, the most reactive your connection is. The main is the minimum value.

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.

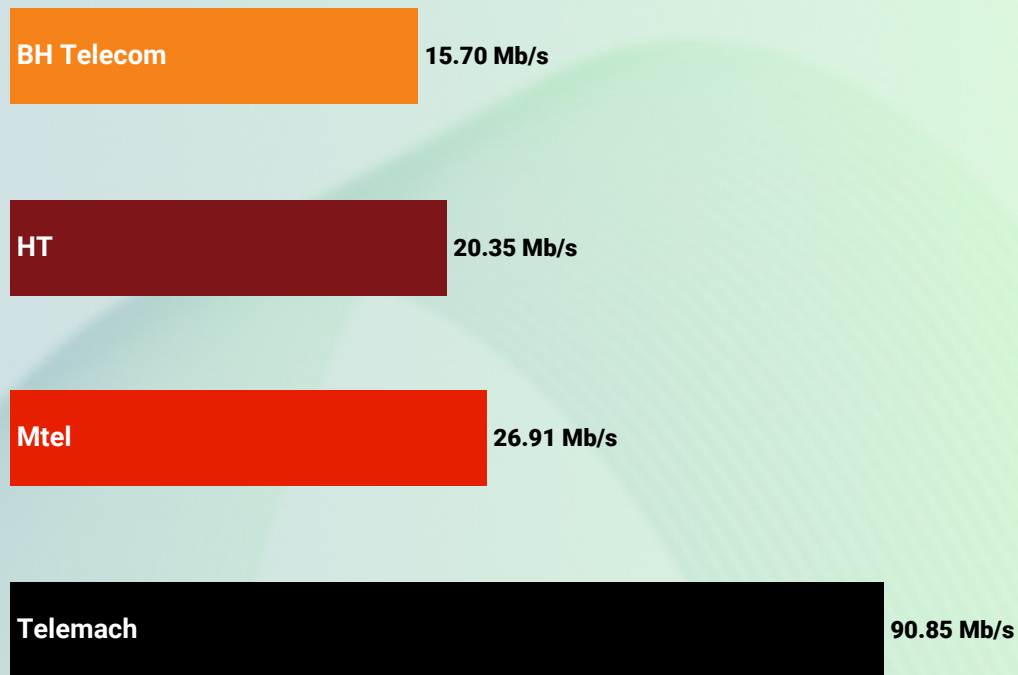
Overall distribution of the tests per provider (ISPs Share)



Source : nperf.com



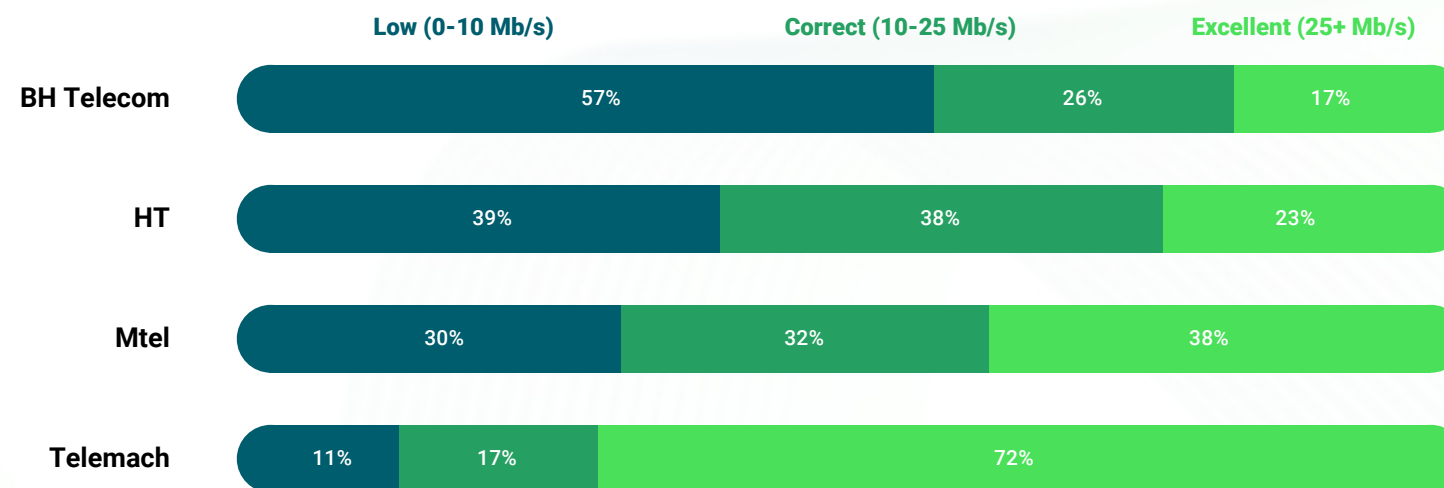
## Download Speed (average)



Source : nperf.com

### The subscribers of Telemach enjoyed the best average broadband download speed in 2023.

## Download Speed results ventilation (average)



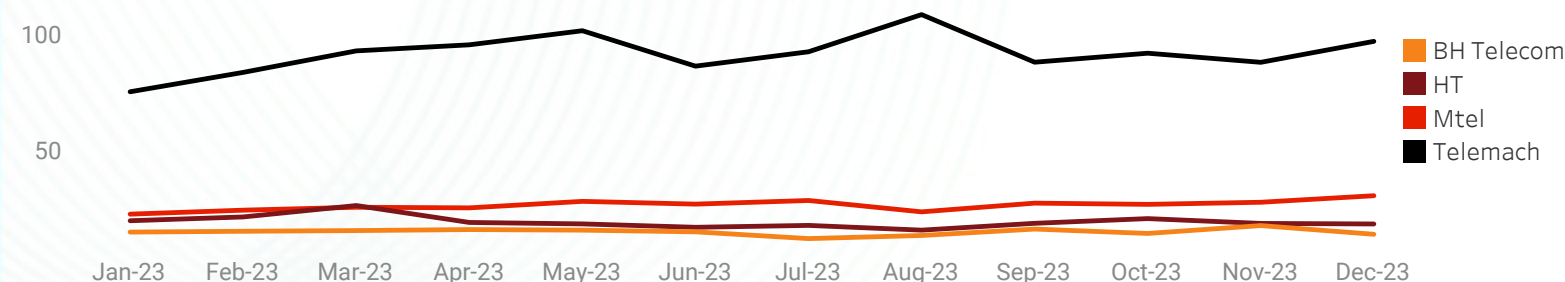
Source : nperf.com

## Download Speed (average)



Source : nperf.com

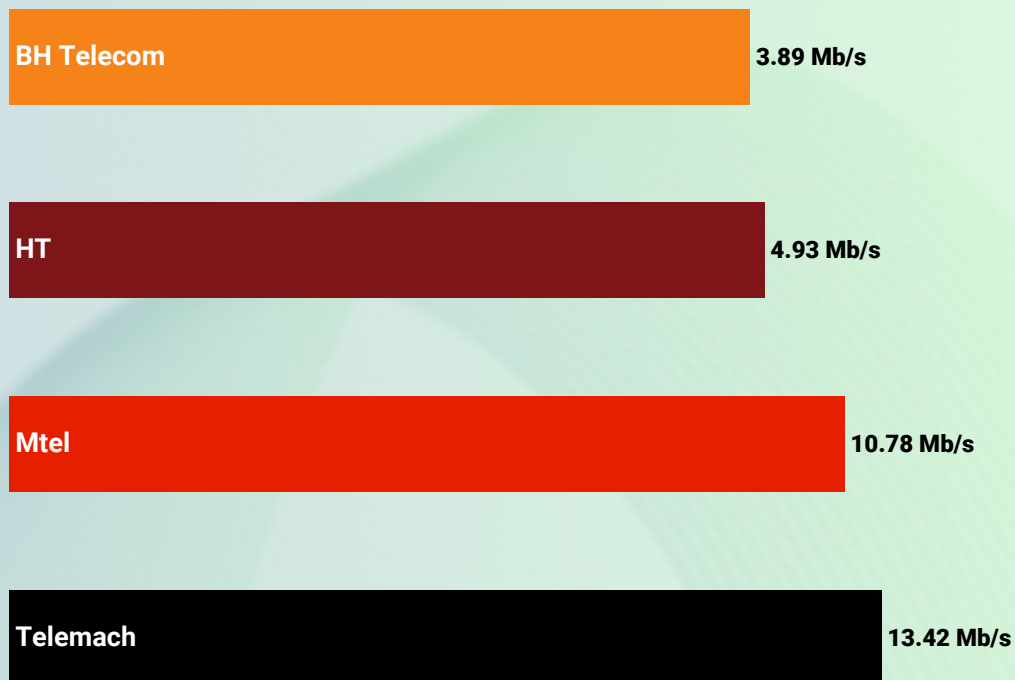
## Download Speed evolution over the year (average)



Source : nperf.com



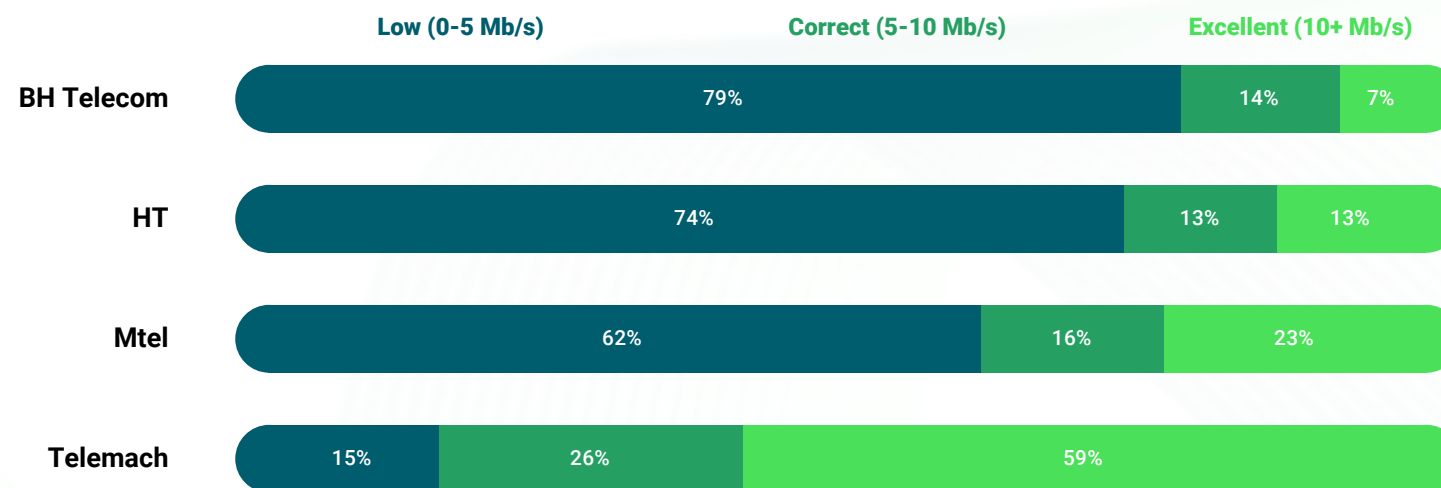
## Upload Speed (average )



Source : nperf.com

The subscribers of Telemach enjoyed the best average broadband upload speed in 2023.

## Upload Speed results ventilation (average)



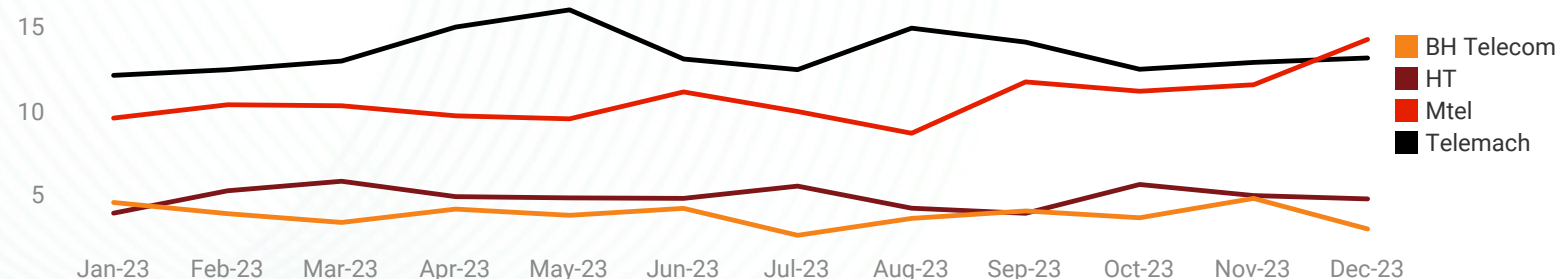
Source : nperf.com

## Upload Speed (average)



Source : nperf.com

## Upload Speed evolution over the year (average)

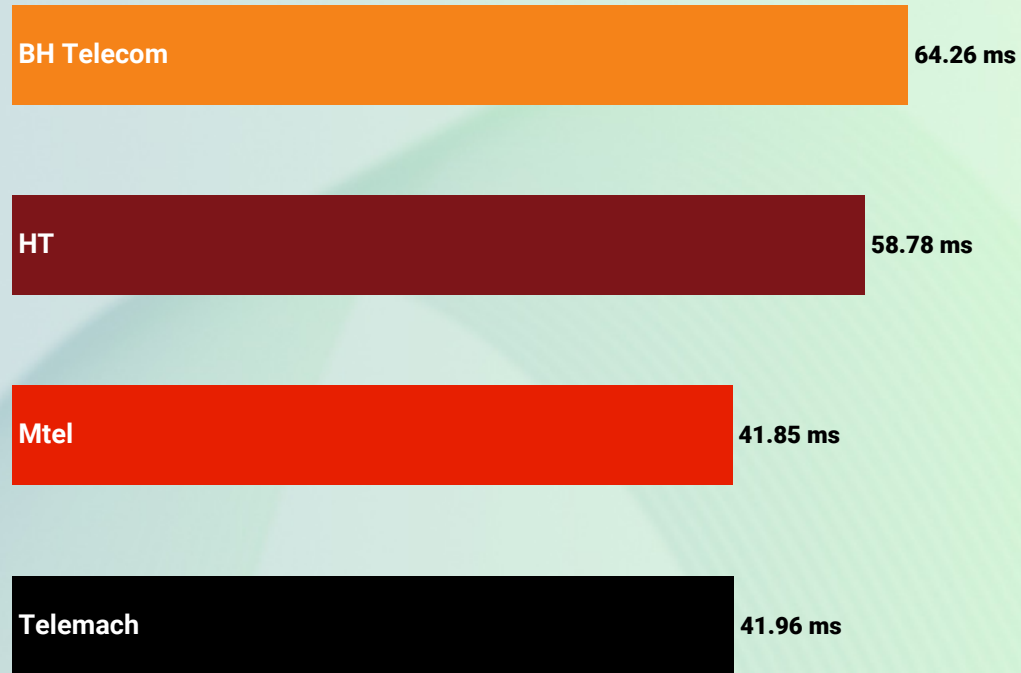


Source : nperf.com





## Latency Speed (average)



Source : nperf.com

The subscribers of Mtel and Telemach enjoyed the best average broadband latency in 2023.

## Latency Speed results ventilation (average)



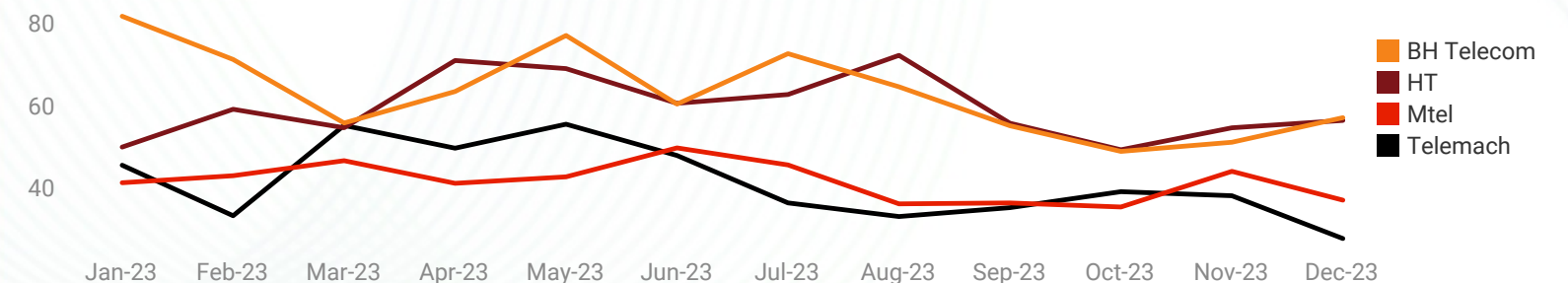
Source : nperf.com

## Latency Speed (average)



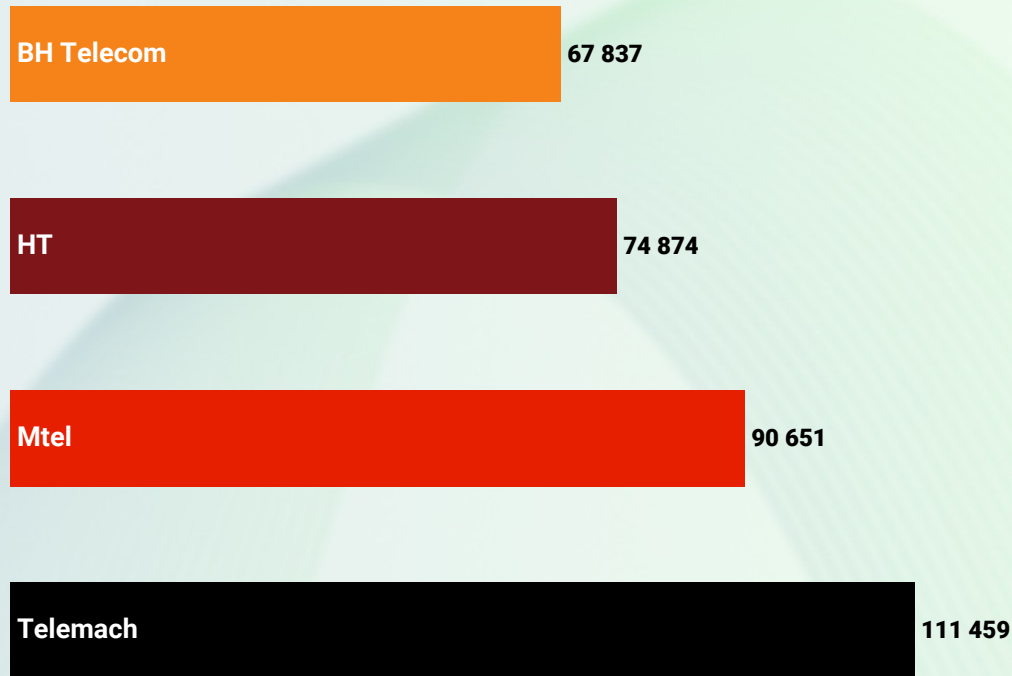
Source : nperf.com

## Average latency Speed evolution over the year



Source : nperf.com

## nPerf Score (nPoints)



Source : nperf.com

The subscribers of Telemach enjoyed the best broadband performances in Bosnia and Herzegovina during 2023.

The nperf score takes into account the measured bitrates and the latency. 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.

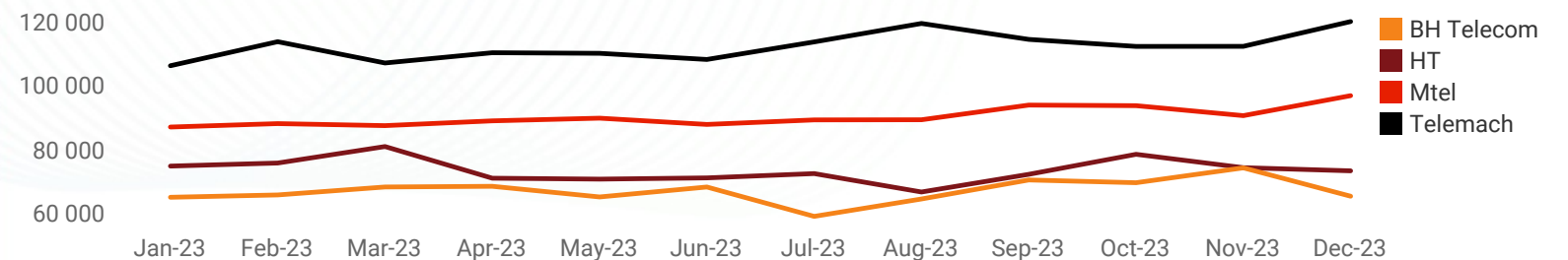
Source : nperf.com

telemach  
Best fixed Internet performance  
in 2023



Source : nperf.com

## nPerf score evolution over the year (average)



Source : nperf.com



We qualify your connection