Satellite Latency Metrics in the Wild

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SPEEDTEST®
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Downdetector®
RootMetrics®

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TRAI
ITU

Ookla's mission is to measure, understand, and help improve connected experiences.

Everything we do is focused on providing objective, accurate performance data and insights to improve connectivity for all.

Our analysis and reporting are fully independent and we transparently share the methodologies behind them.

The result: an unbiased picture that governments, consumers, the press, and industry leaders alike trust and rely on to understand and help improve the state of the internet.

170,000+

articles published annually referencing ookla brands

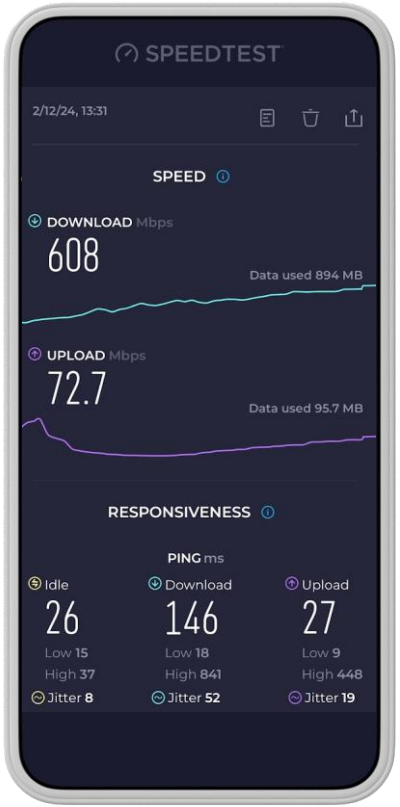
73.2%

share of voice compared to competitors in the industry

1,500+

clients in over 150 countries

What is Measured? What is surfaced?



Latency Measurements Surfaced

- Idle Ping
- Download Ping (under load)
- Upload Ping (under load)

Other Latency Measurements Gathered

- Gaming Server Latency
- Video Conference Latency
- Streaming Latency
- Page Load Time

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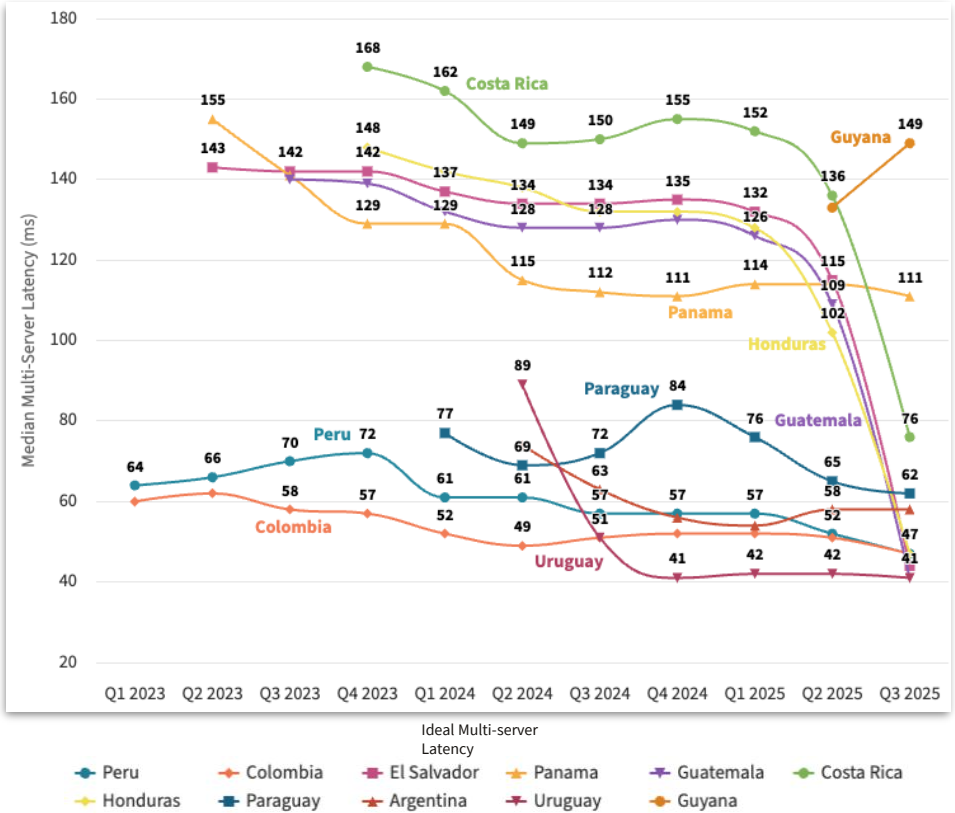
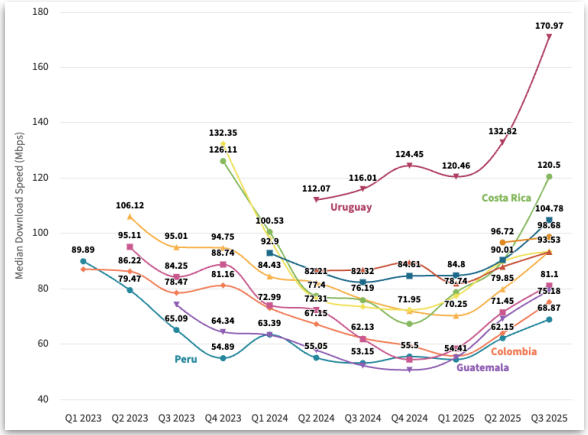
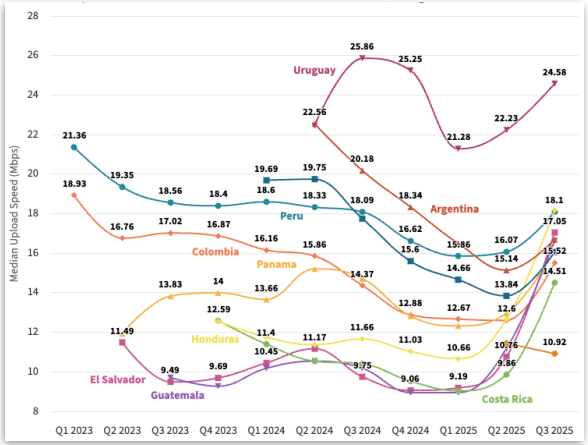
Example 1: Starlink Latam Market Launches



Ideal Multi-server Latency

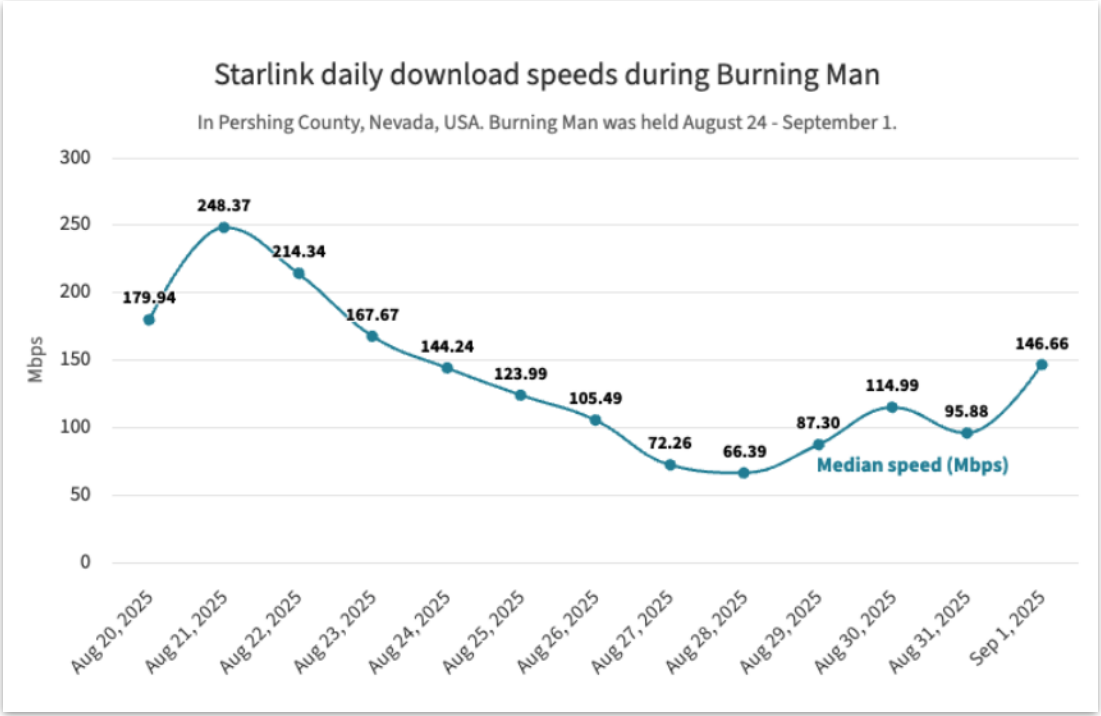


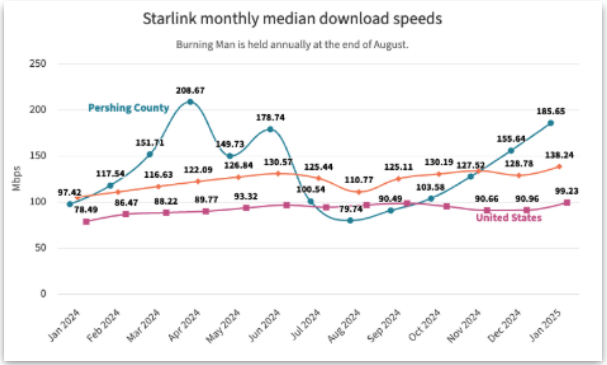
Peak Download Speeds



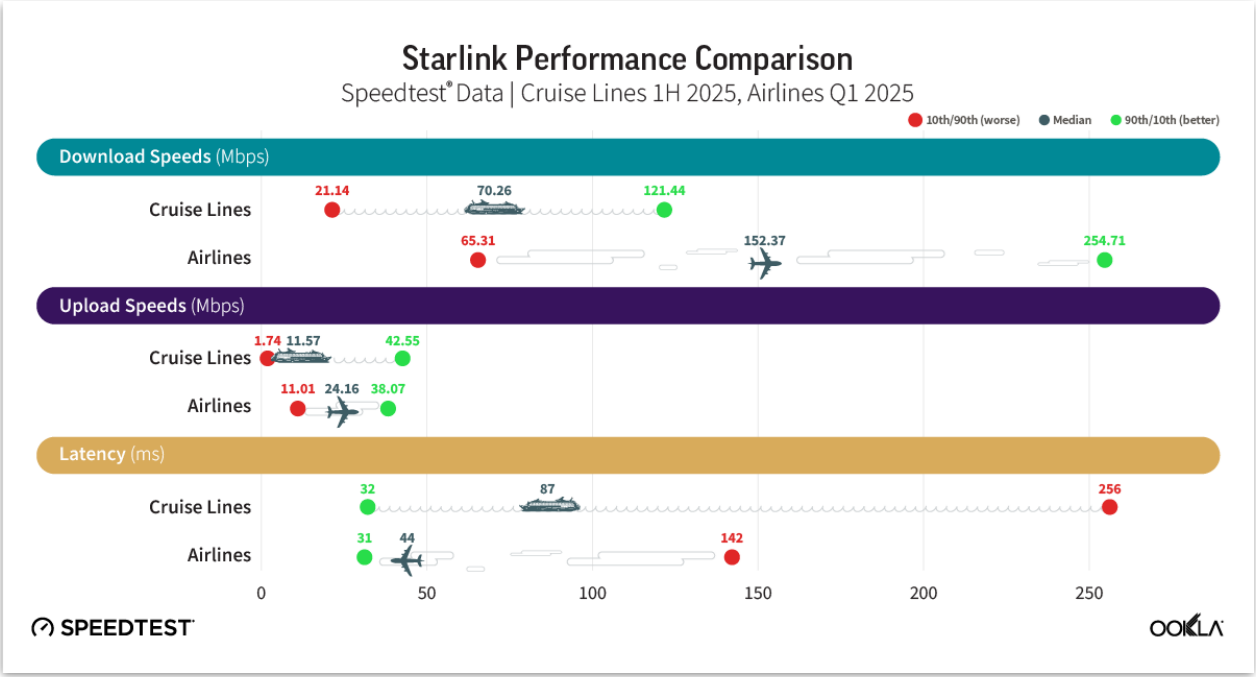
Peak Upload Speeds

Example 2: Starlink at Burning Man - Arizona, USA

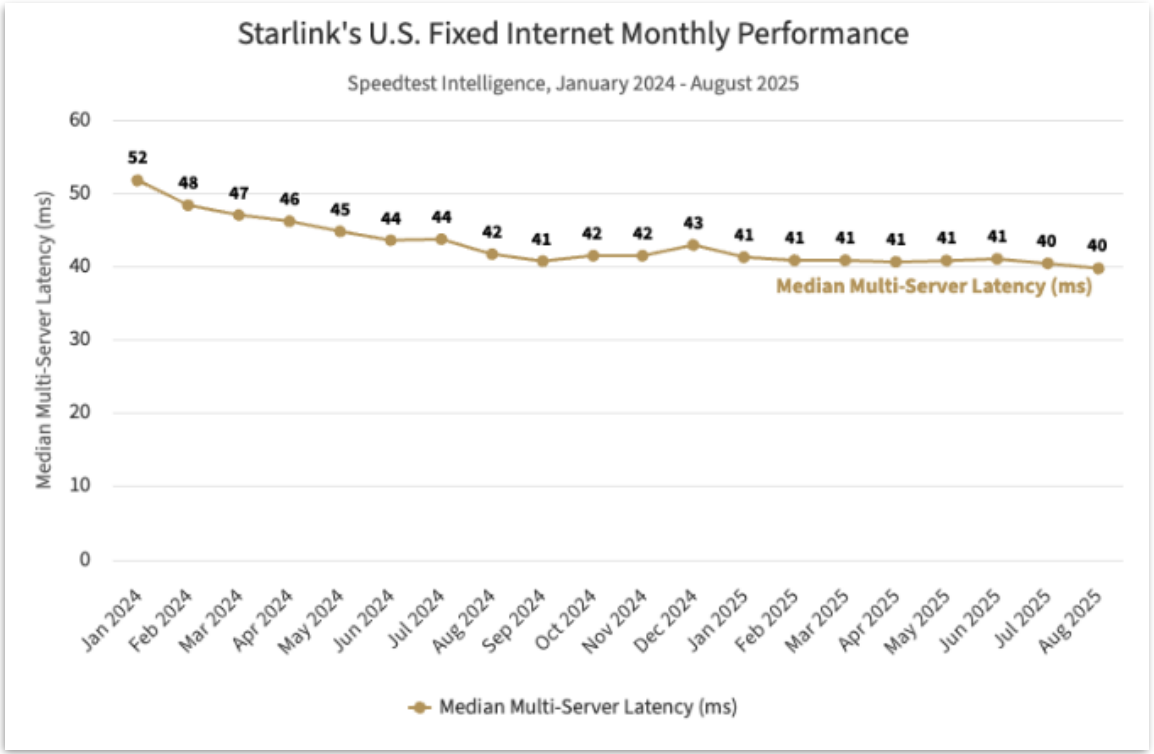


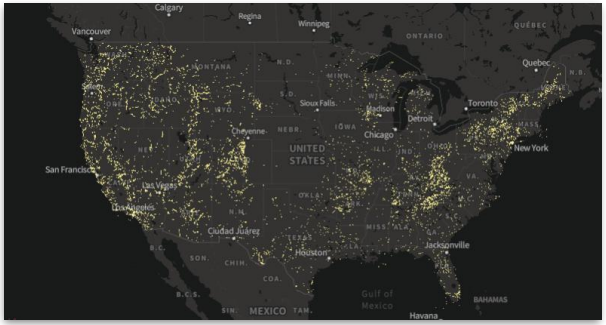


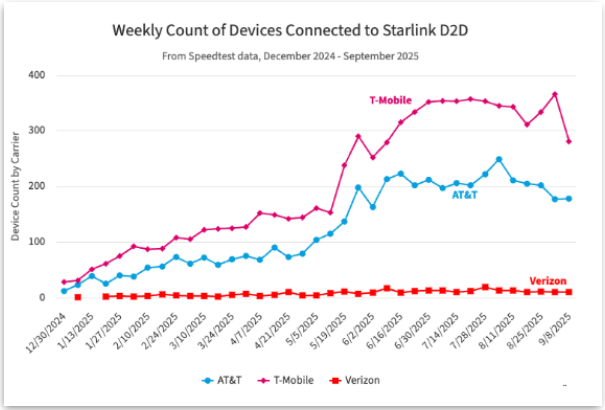
Example 3: Starlink Performance in Transit



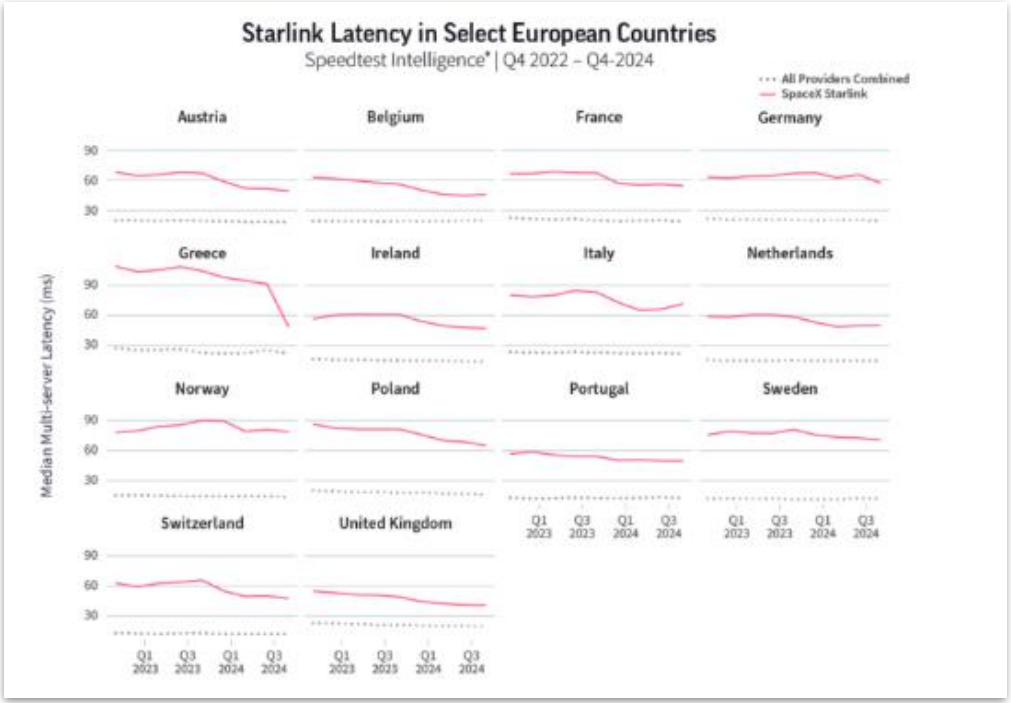
Example 4: Starlink Direct to Device (D2D) in America

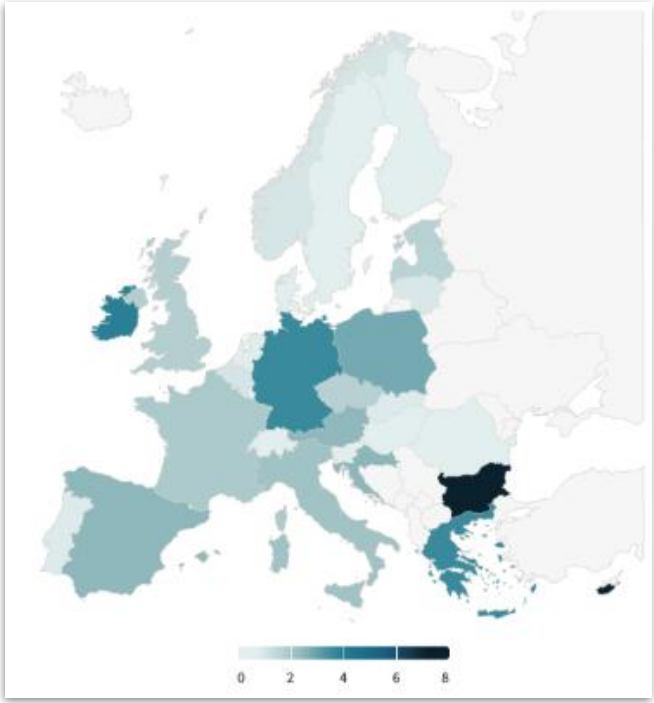




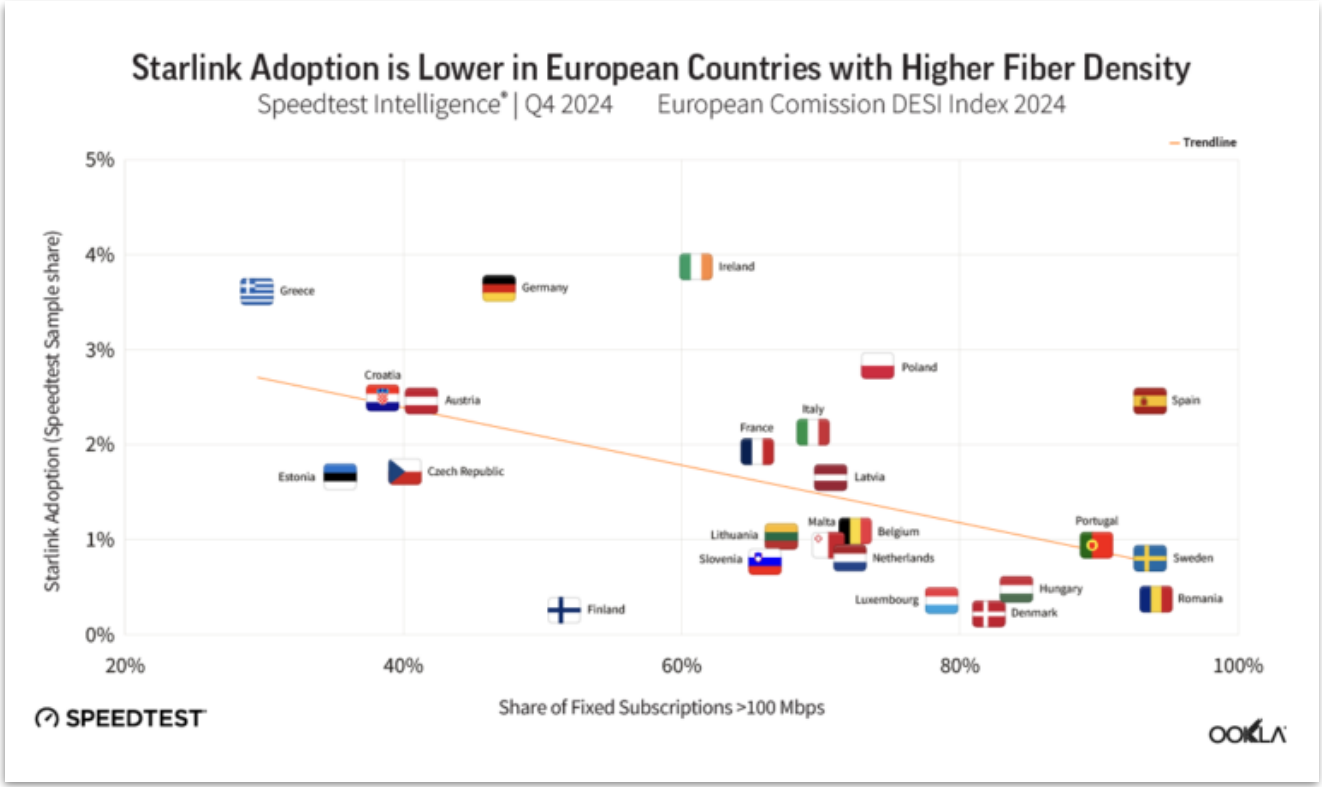


Example 5: Starlink Performance in Europe

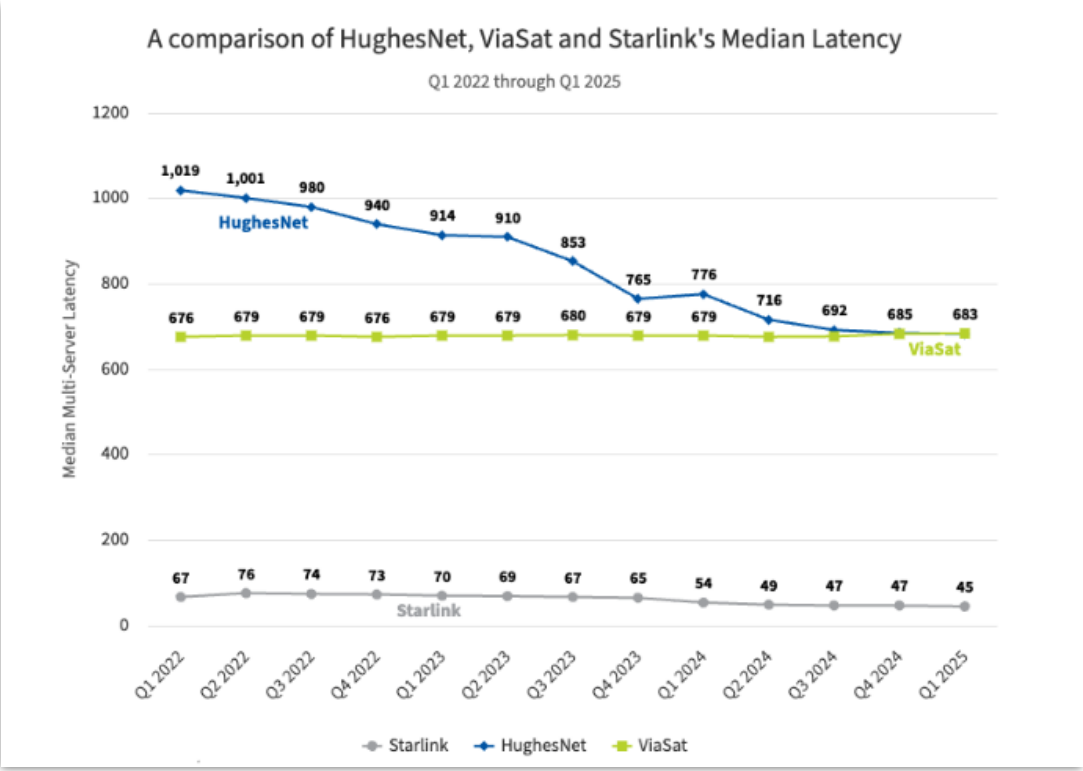




Example 5: Starlink Performance in Europe



Example 6: LEO versus GEO



Global Internet Observability

Deep consumer trust allows Ookla to build an unrivaled multi-dataset global view

Daily consumer-initiated tests
15m+

Taken on Speedtest across browser, Apple, Android and more

Monthly consumer-initiated tests
95m+

Taken on Speedtest across all OECD countries

Dedicated Speedtest Servers
15k+

Across 190+ countries, a distributed test platform unrivaled on the globe

Actively collected QoE Metrics
Billions

Across 190+ countries, a distributed test platform unrivaled on the globe

Monthly Downdetector user reports
25m+

Accurate and fast consumer reported service outage information

Ookla believes that good connectivity should not be a scarce resource

Everything we do starts with a consumer. We are focused on providing objective, accurate performance data and insights to improve connectivity for all.

Our analysis and reporting are fully independent and we transparently share the methodologies behind them.

The result: an unbiased picture that consumers, the press, and industry leaders alike trust and rely on to understand and help improve the state of the internet.

Thank You

Do you have any questions?

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Crowdsourcing international standards

ITU Recommendation E.806:

“Measurement campaigns, monitoring systems, and sampling methodologies to monitor the quality of service in mobile networks”

- Crowdsourced Data Collection: a method to gather active and/or passive QoS measurements from a large number of end-User devices

ITU Recommendation E.812 Amd1:

“Crowdsourcing approach for the assessment of end-to-end quality of service in fixed and mobile broadband networks”

- Overview of crowdsourcing approach for fixed and mobile Internet access;
- Types of crowdsourced data collection, characteristics and requirements;
- Set-up scenarios;
- Guidelines for regulators, service providers, and vendors that can be Use for benchmarking and network improvement when using the crowdsourcing approach

Delivering consistency of results

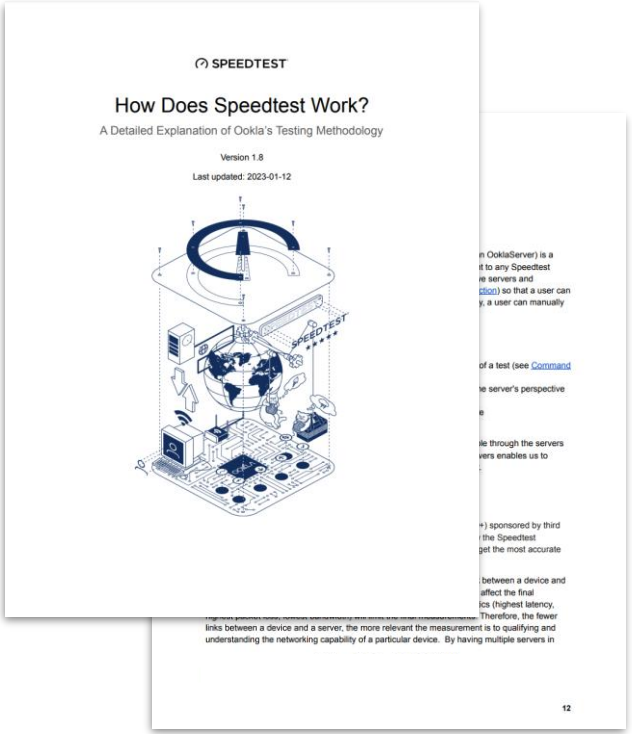
Ookla publishes methodologies for all that we do; these methodologies are reactive to the changing world of connectivity.

We take a uniform and consistent approach to measurement the world over.

We have methodologies for:

- How a Speedtest is taken
- How we benchmark operators, regions, and nations
- How we measure quality of experience (QoE)

We frequently publish content and deliver webinars to make our methods and ways open and transparent.



Speedtest Methodology

OOKLA

Case Study: OECD

Ookla are partners of both the OECD Telecommunications unit and the OECD Rural Innovation team.

They use Ookla data to:

- Understand connectivity across the globe, not just OECD countries
- Build out wide-ranging communications policies on the back of our data
- Use Ookla's QoS/throughput data to determine served and underserved areas of fixed line connectivity

The next round of OECD work program will take two years and focus on a wider range of countries.