Barometer of fixed internet connections in Switzerland

Year 2019

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1 Summary of global annual results

1.1 nPerf score, all technologies combined
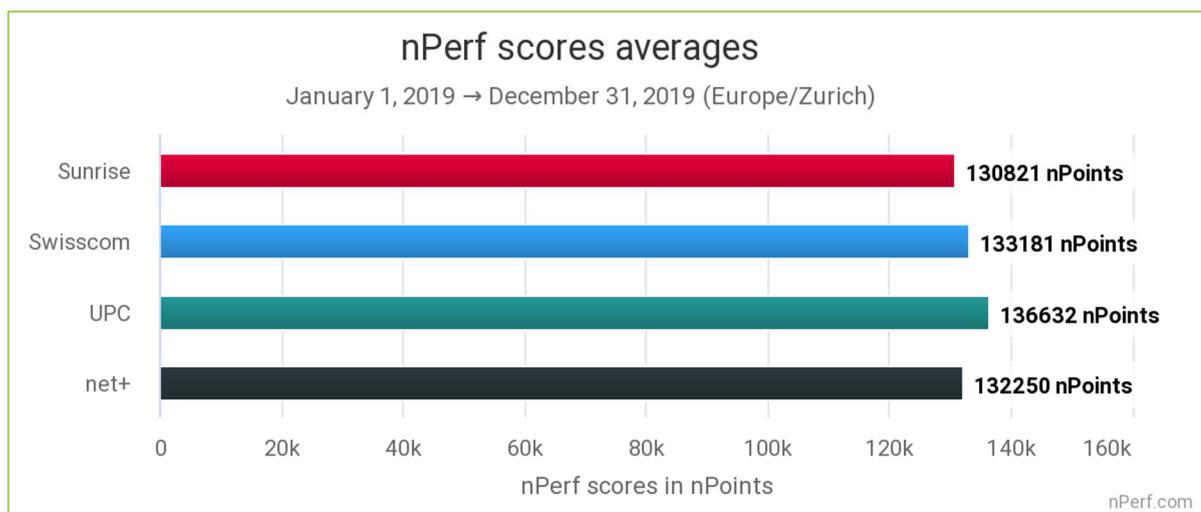
nPerf scores averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Operator	Score
Sunrise	130821 nPoints
Swisscom	133181 nPoints
UPC	136632 nPoints
net+	132250 nPoints

nPerf scores in nPoints

nPerf.com

The highest value is the best.

UPC and Swisscom, the best fixed Internet performances in 2019.

1.2 nPerf score on FTTH networks
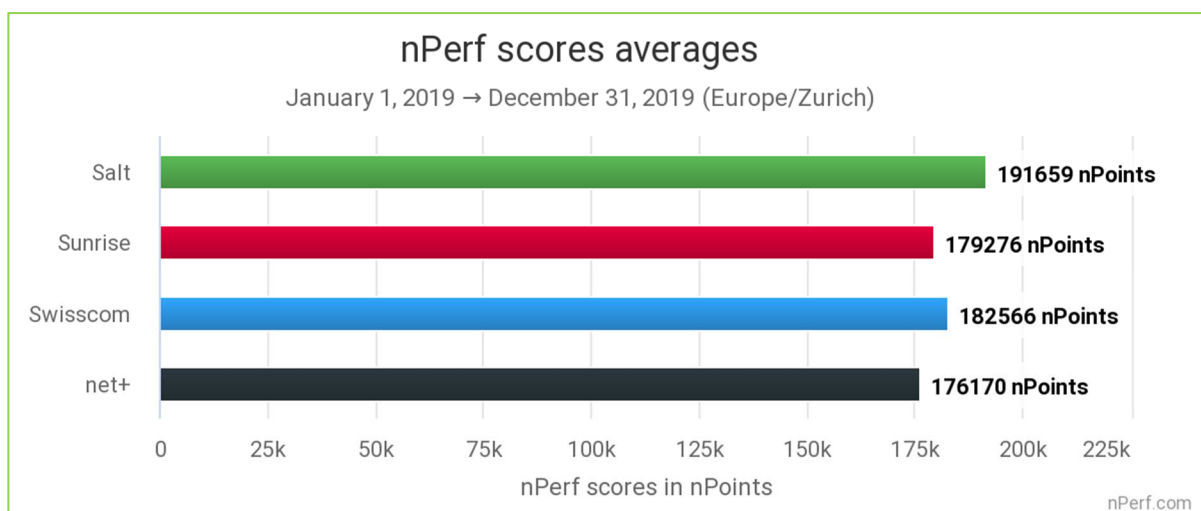
nPerf scores averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Operator	Score
Salt	191659 nPoints
Sunrise	179276 nPoints
Swisscom	182566 nPoints
net+	176170 nPoints

nPerf scores in nPoints

nPerf.com

The highest value is the best.

Salt, the best 2019 internet performance on fiber networks.

nperf

1.3 Our analysis

In 2019, nPerf users have performed **89 117** connection tests on Switzerland's four largest ISPs.

In 2019, People in Switzerland have enjoyed an average download speed of 98 Mbps and 55 Mbps in upload. Swiss households are among the best-connected ones in Europe with these broadband performances.

We have voluntary excluded Salt and Quickline from the category "*all technologies combined*", because of a too small volume of tests.

UPC and Swisscom have offered the best internet performances in the country to their subscribers.

Swisscom has delivered a very good upload throughput and an excellent latency while UPS offered a huge download bitrate, far from its competitors.

Sunrise is not far behind making strong progress in 2019.

Regarding the FTTH, Salt has offered the best internet performances in the country to its subscribers.

In 2019, among the **89 117** tests done, **11 510** have been performed on FTTH networks.

We have voluntary excluded Quickline from this FTTH study because of a too small volume of tests.

Salt dominates the market in terms of performances on fiber Internet connections thanks to its first place on latency, download speed and upload speed.

These results are due to a very good choice of technology. By choosing 10 Gbps technology, Salt is sure to deliver the best internet performance. Other Internet providers are penalized by a marketing segmentation. Indeed, Salt is the only provider who delivers symmetric 10 Gbps broadband.

Note also that, if the performance is far from the theorical one, it's because customers don't have yet the equipment (powerful chipset, ethernet cable, new generation of Wi-Fi…) that allows them to reach 10 Gbps.

Swisscom, a nice second place.

Thanks to its good download and upload speeds and an excellent latency, the largest ISP in Switzerland reaches the second place in our FTTH ranking.

Sunrise, in third place.

Nice progress of this ISP in 2019 in this category especially on its download speed and its latency.
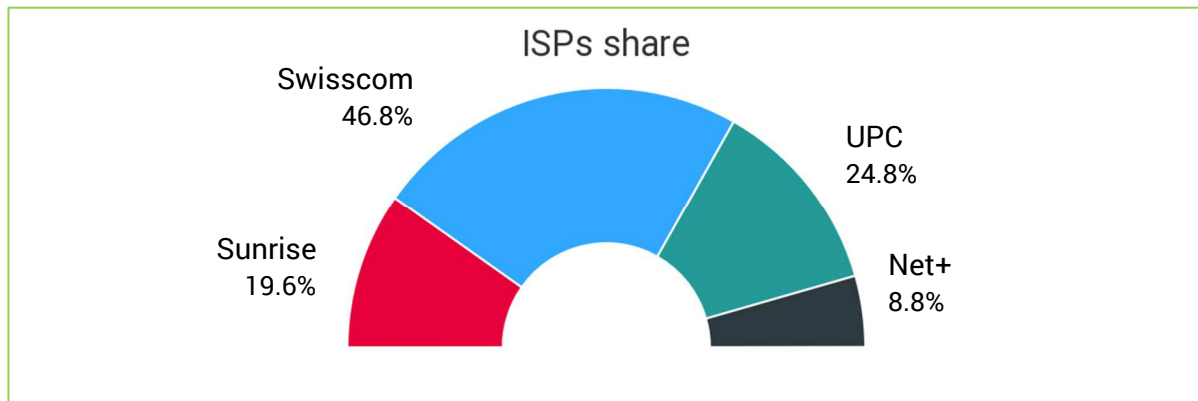
2 Results, all technologies combined

2.1 Data amount and distribution

From **January 1, 2019** to **December 31, 2019** we counted **89 117** tests, distributed after filtering as follows:
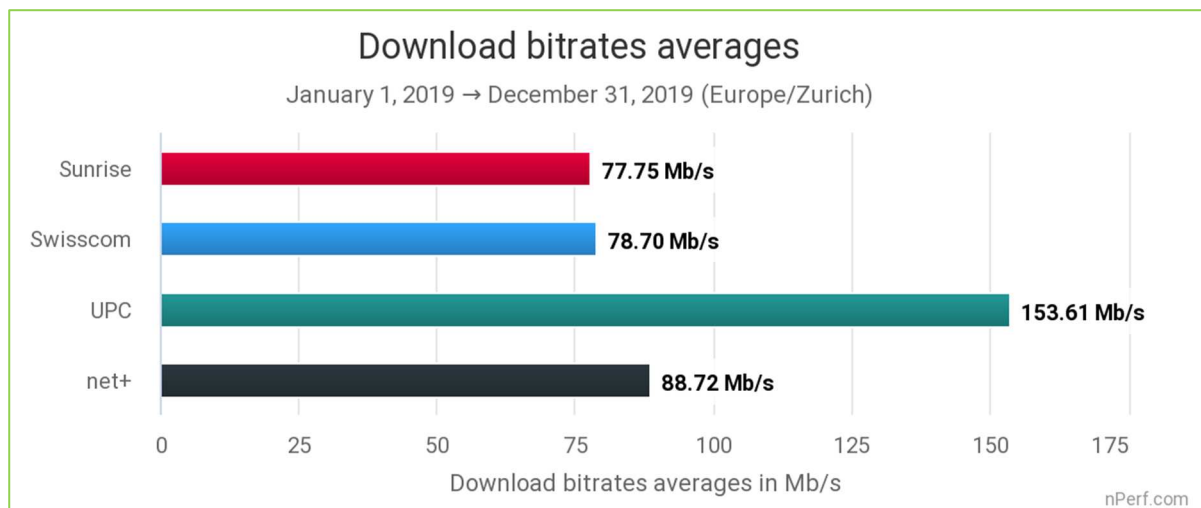
Country	Tests
Switzerland	**71 086**

Breakdown of tests by provider

ISPs share

Swisscom
46.8%

UPC
24.8%

Sunrise
19.6%

Net+
8.8%

2.2 Download speed

In 2019, the average download speed in Switzerland was 98 Mb/s.

Download bitrates averages

January 1, 2019 → December 31, 2019 (Europe/Zurich)

Sunrise	77.75 Mb/s
Swisscom	78.70 Mb/s
UPC	153.61 Mb/s
net+	88.72 Mb/s

Download bitrates averages in Mb/s

nPerf.com

The highest value is the best.

All technologies combined, **UPC** has offered the best download speed to its subscribers in 2019.
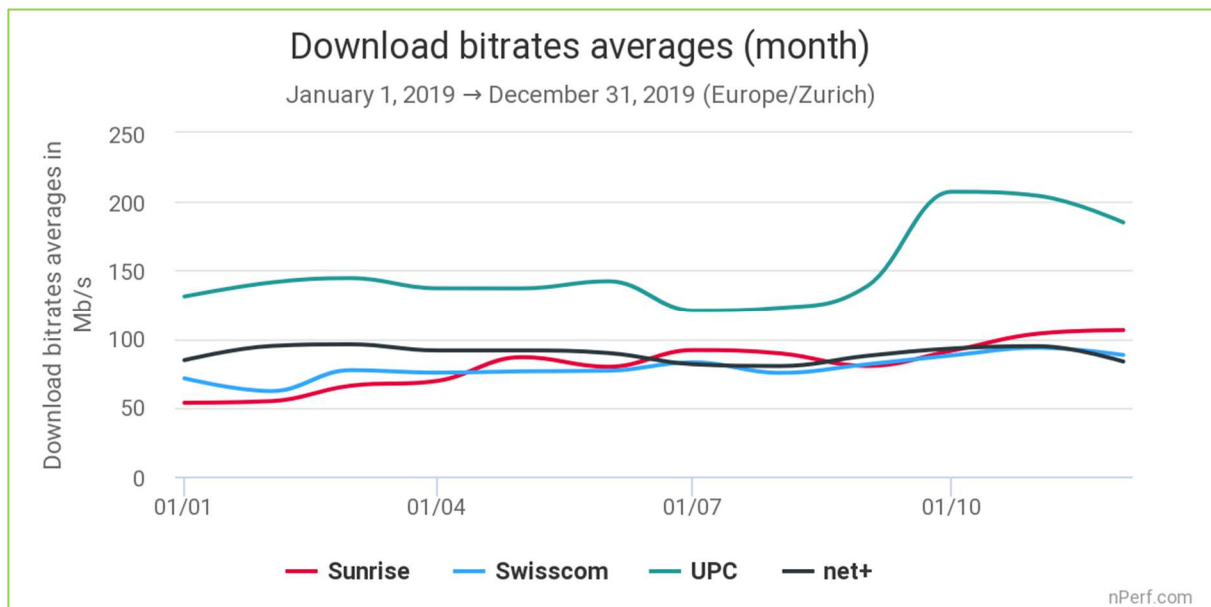
Download bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Sunrise — **Swisscom** — **UPC** — **net+**

The highest value is the best.

Above graph illustrates the ability of providers to maintain a constant download speed over the period regardless of network load (number of connected clients).

UPC is the Internet provider that has most increased its download speed in one year (+39 Mbps) followed by Sunrise (+26 Mbps).

Download bitrates averages (hours of day)
January 1, 2019 → December 31, 2019 (Europe/Zurich)

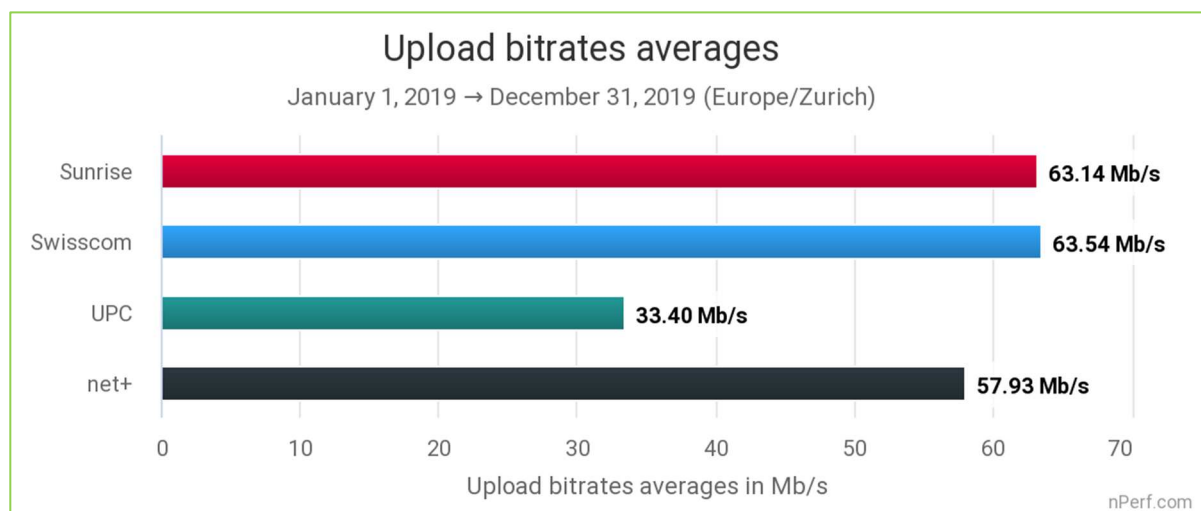**Sunrise** — **Swisscom** — **UPC** — **net+**
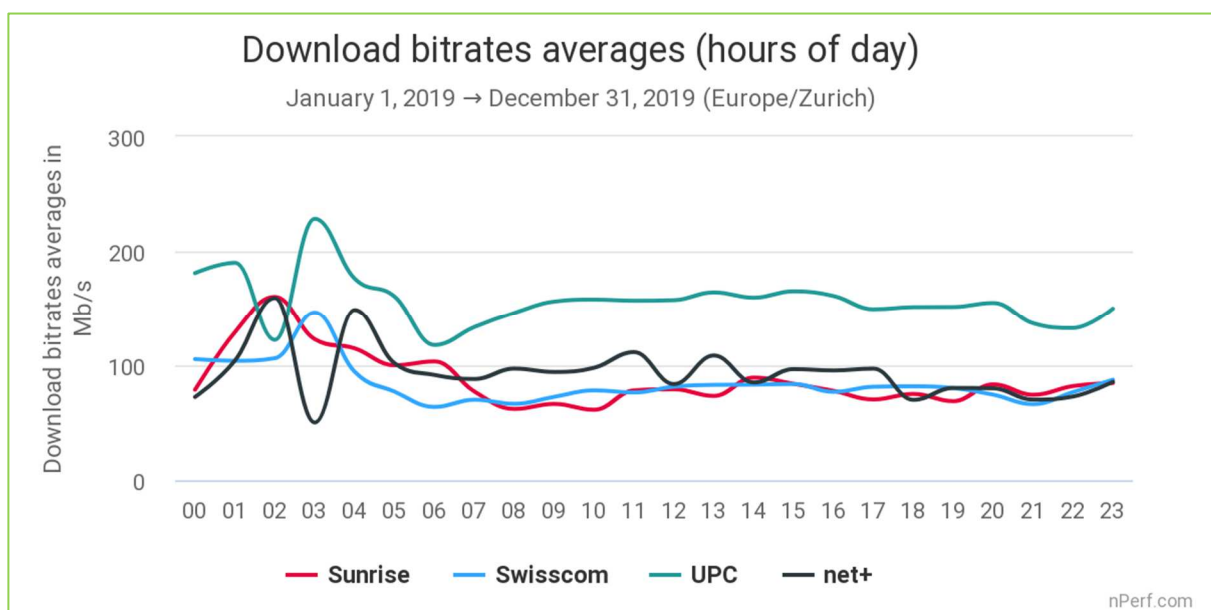
The highest value is the best.

This graph illustrates the ability of providers to ensure a constant download speed during the day, regardless of network load (number of connected clients.

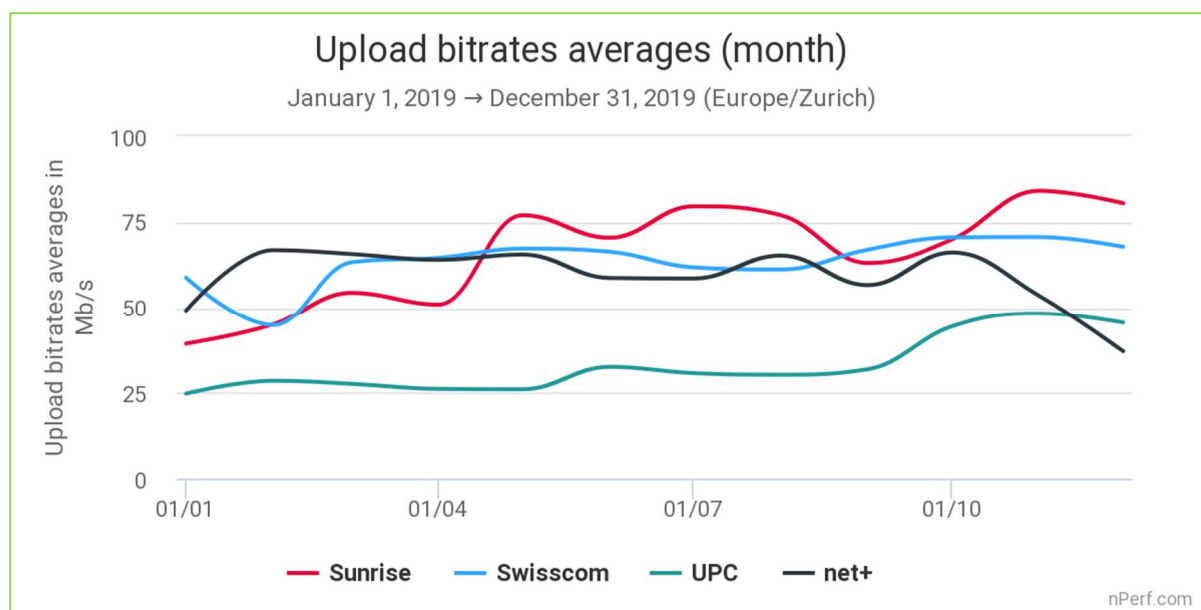We note that there is no decline of the troughput during the busy hours; this is a good performance from the ISPs.

2.3 Upload speed

In 2019, the average upload speed in Switzerland was 55 Mb/s.

Upload bitrates averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Sunrise — 63.14 Mb/s
Swisscom — 63.54 Mb/s
UPC — 33.40 Mb/s
net+ — 57.93 Mb/s

nPerf.com

The highest value is the best.

All technologies combined, **Swisscom** and **Sunrise** have offered the best upload speeds to their subscribers in 2019.

Upload bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Zurich)

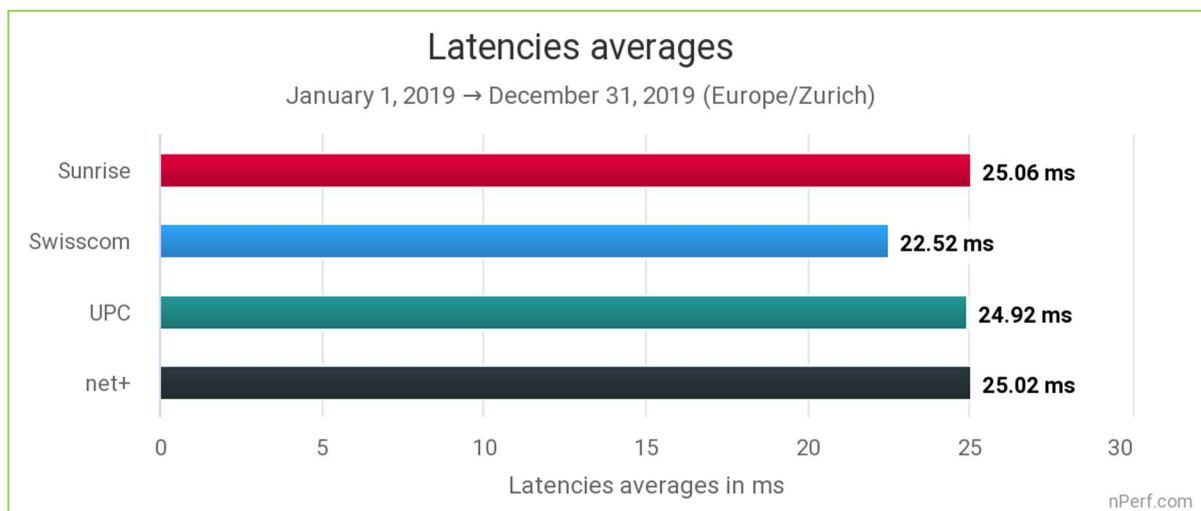Sunrise — Swisscom — UPC — net+

nPerf.com

The highest value is the best.

Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected clients).

All ISPs have slightly improved their upload throughput during the year and Sunrise posted the best progress on this indicator (+22 Mbps).

2.4 Latency

In 2019, the average latency in Switzerland was 24 ms.

Latencies averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Sunrise	25.06 ms
Swisscom	22.52 ms
UPC	24.92 ms
net+	25.02 ms

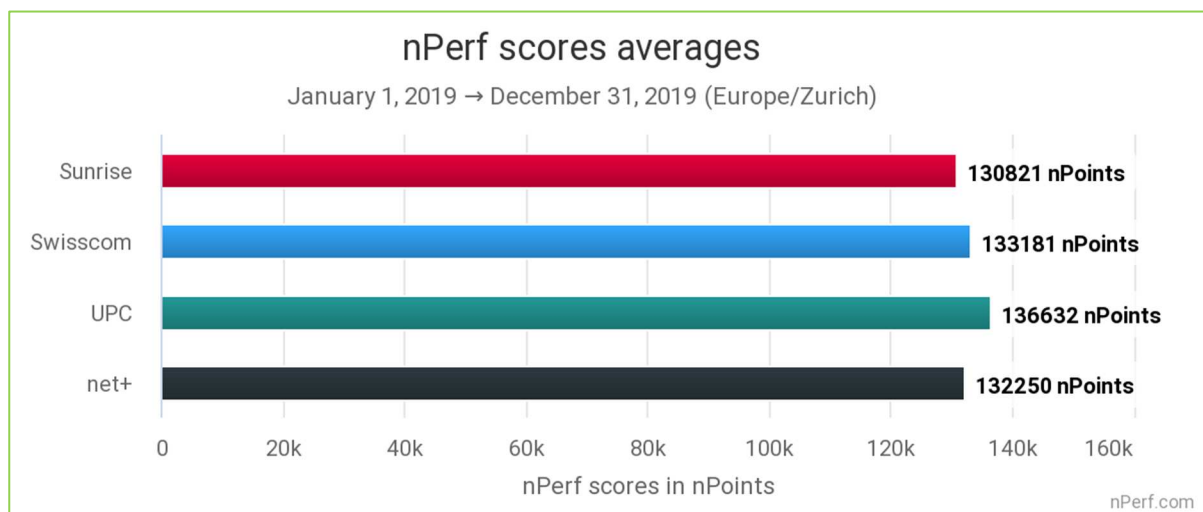Latencies averages in ms

nPerf.com

The lowest value is the best.

All technologies combined, **Swisscom** has offered the best average latency to its subscribers in 2019.

2.5 nPerf score

The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection for mainstream consumer use.

nPerf scores averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Sunrise	130821 nPoints
Swisscom	133181 nPoints
UPC	136632 nPoints
net+	132250 nPoints

nPerf scores in nPoints

nPerf.com

The highest value is the best.

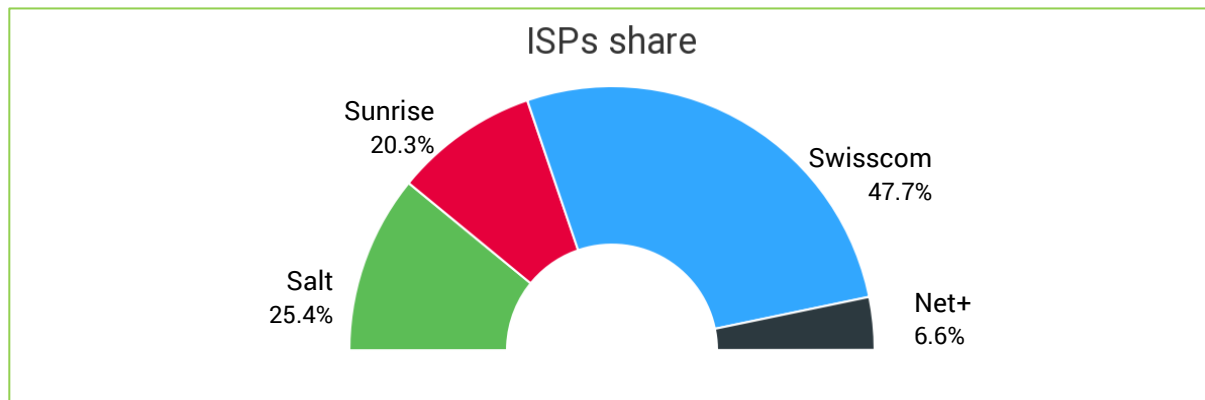### UPC and Swisscom, the best fixed Internet performances in 2019.

3 Optical Fiber Results

3.1 Data amount and distribution

From **January 1, 2019** to **December 31, 2019** we counted **11 510** tests, distributed after filtering as follows:

| Country	Tests
Switzerland	**9 532**

Breakdown of tests by provider

The indicators that follow in this section relate only to the FTTH technology (Fiber to the home) proposed by the 4 carriers. In order to isolate the FTTH tests for the comparison, we have chosen to filter on an upload bitrate greater than or equal to 100 Mb/s. Thus, only the FTTH results stand out, the technologies like FTTLA / FTTB, G-Fast or VDSL are discarded. However, this filter also eliminates "bad" FTTH tests, at least those that have a bitrate below 100 Mb/s. This filtering is identical for all operators, it does not put into question the comparison.

3.2 FTTH download speed
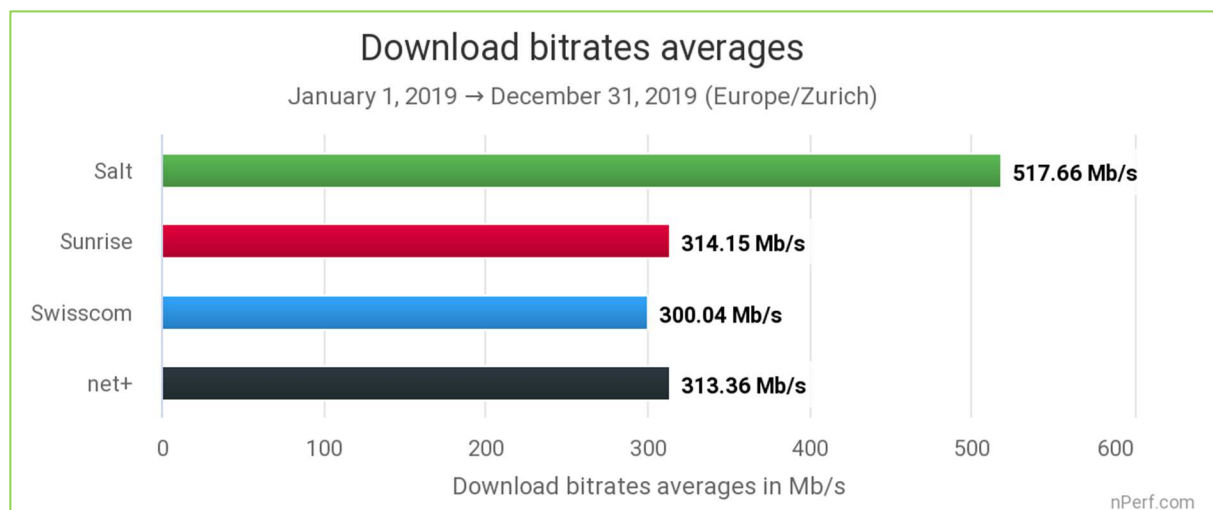
The highest value is the best.

On FTTH technologies, **Salt** has offered the best download speed to its subscribers in 2019.
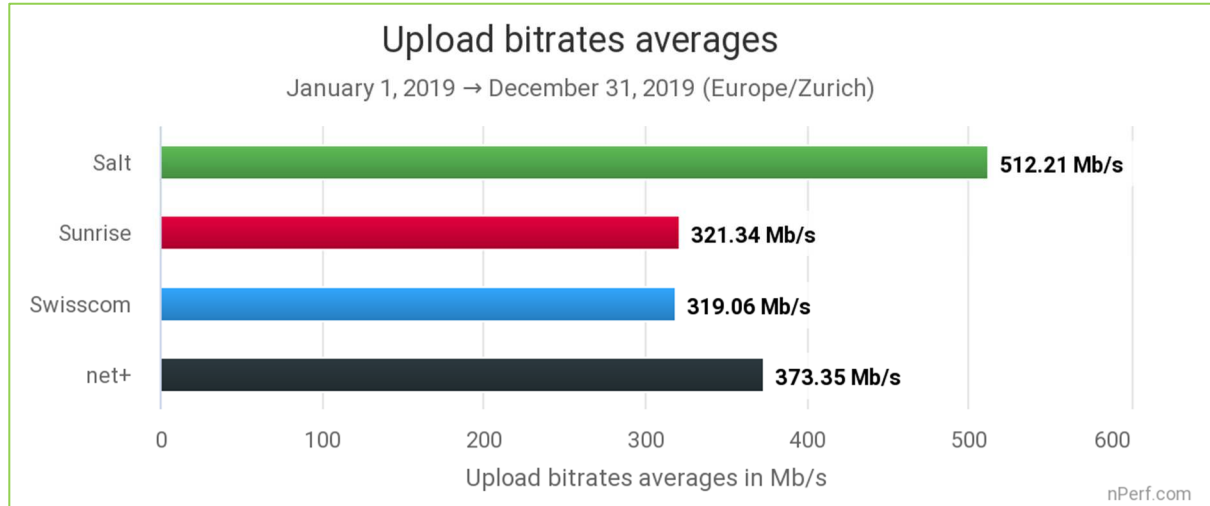
Download bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Zurich)
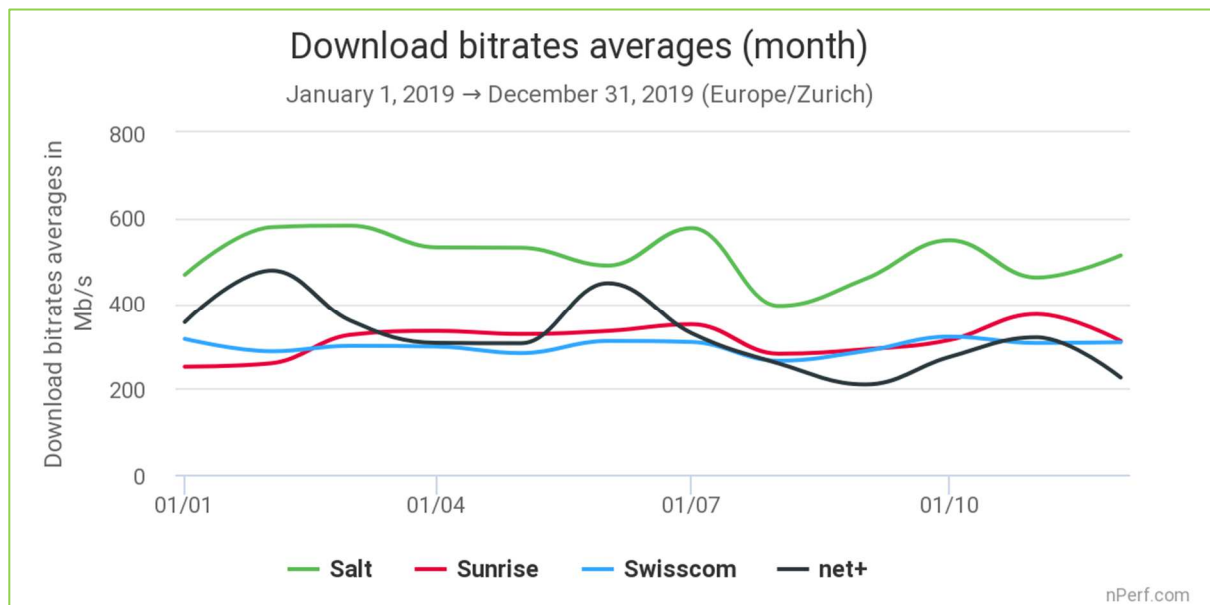
The highest value is the best.

Above graph illustrates the ability of providers to maintain a constant download speed over the period regardless of network load (number of connected clients).

Salt and Sunrise have significantly improved their download throughput in 2019 respectively by +99 Mbps and +71 Mbps.

3.3 FTTH upload speed

Upload bitrates averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

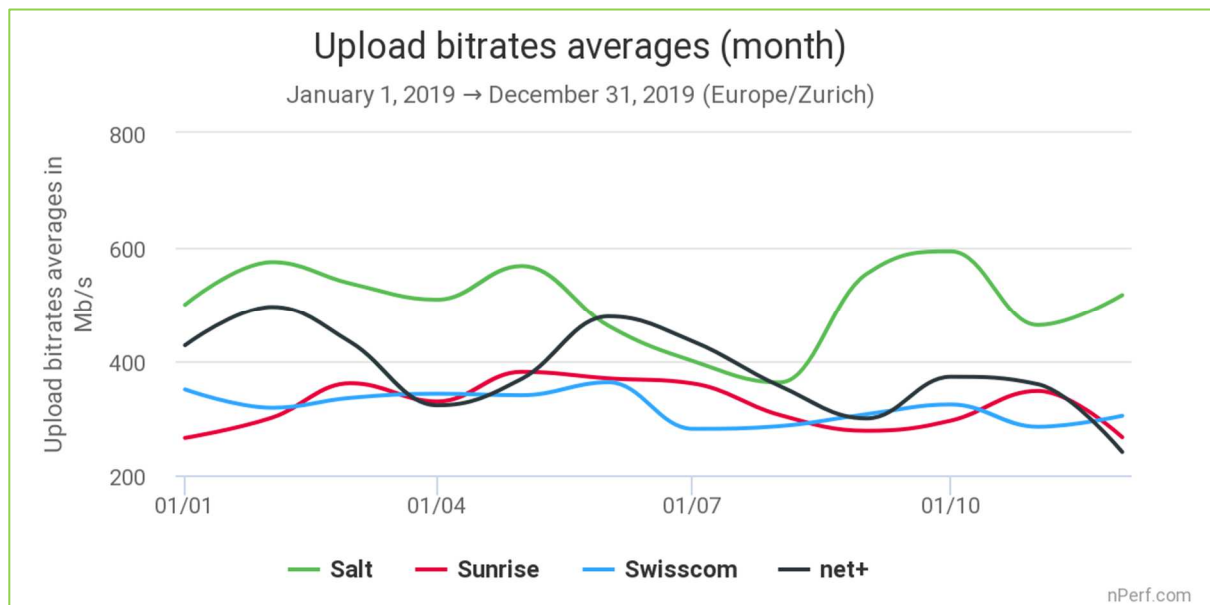| Provider	Upload bitrates averages in Mb/s
Salt	512.21 Mb/s
Sunrise	321.34 Mb/s
Swisscom	319.06 Mb/s
net+	373.35 Mb/s

The highest value is the best.

On FTTH technologies, **Salt** has offered the best upload speed to its subscribers in 2019.

Upload bitrates averages (month)
January 1, 2019 → December 31, 2019 (Europe/Zurich)

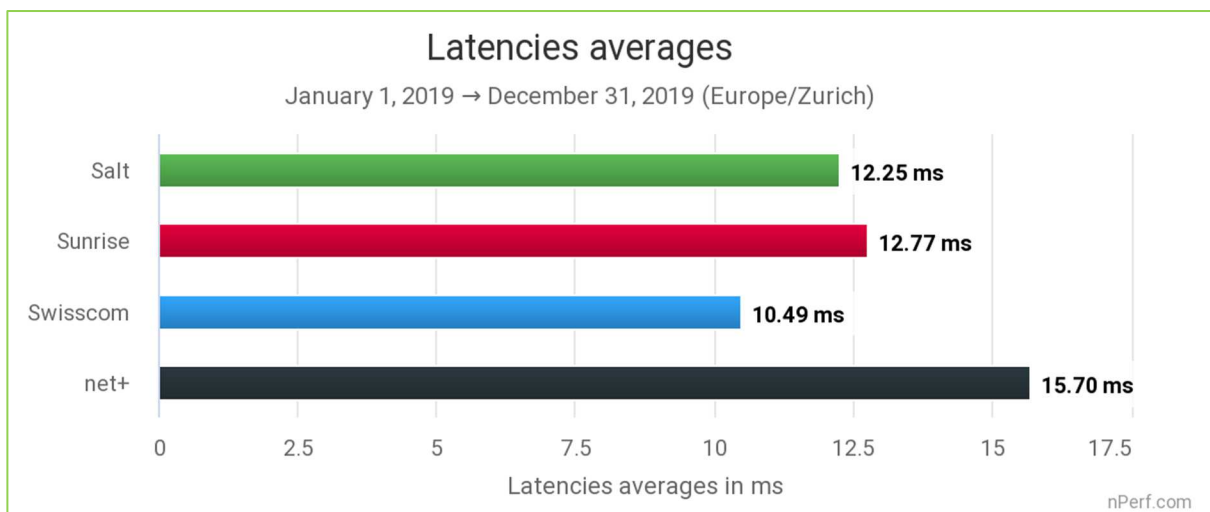— Salt   — Sunrise   — Swisscom   — net+

nPerf.com

The highest value is the best.

Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected clients).

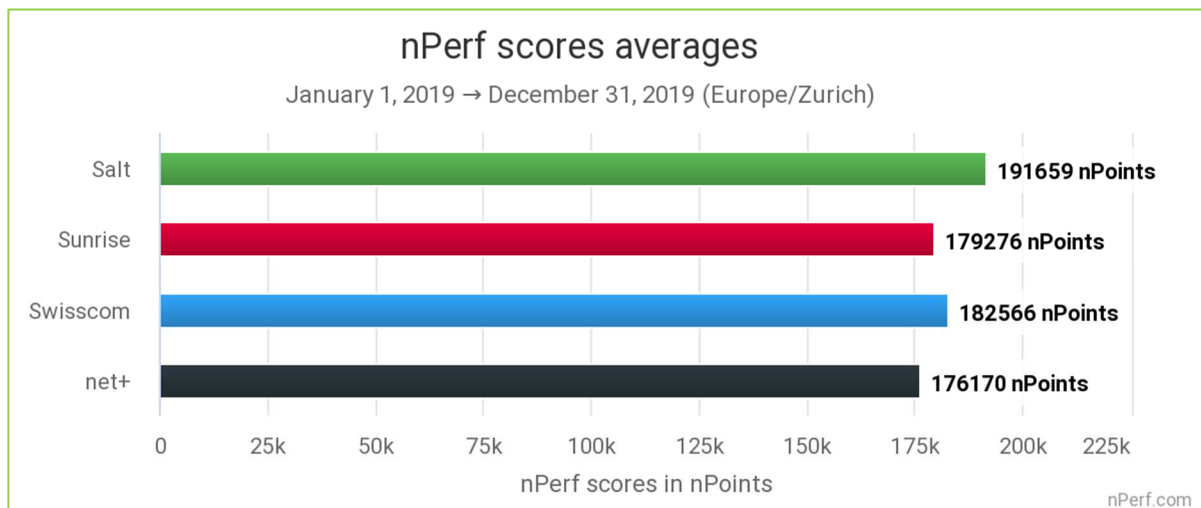Salt has significantly improved its upload throughput during the year by +36 Mbps.

3.4 FTTH latency

Latencies averages
January 1, 2019 → December 31, 2019 (Europe/Zurich)

Salt	12.25 ms
Sunrise	12.77 ms
Swisscom	10.49 ms
net+	15.70 ms

Latencies averages in ms

nPerf.com

The lowest value is the best.

On FTTH technologies, **Swisscom** has offered the best average latency to its subscribers in 2019.

3.5 nPerf score, zoom on the FTTH

The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection for mainstream consumer use.

nPerf

nPerf scores averages

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nPerf.com

The highest value is the best.

Salt, the best 2019 internet performance on fiber networks.

4 Methodology

4.1 The panel

nPerf offers an Internet speed test application, which can be used for free at www.nPerf.com.

Everyone is free to use nPerf to measure the speed of their Internet connection. All users of the nPerf application form the panel of this study.

In addition, the results from the nPerf speed tests integrated on our partner websites are also included in the panel.

Thus, the nPerf study is based on thousands of tests, making it the study with the largest panel in Switzerland.

4.2 Speed and latency tests

4.2.1 Objectives and operation of the speed and latency test

The purpose of the nPerf Speed Test is to measure the maximum capacity of the data connection in terms of data rates and latency.

To achieve this, nPerf establishes multiple connections simultaneously to saturate the bandwidth to accurately measure it. The speed used for the barometer is the average speed measured by the application.

Speed measurements thus reflect the maximum capacity of the data connection. This rate may not be representative of the user experience experienced during normal use of the Internet, as it is measured only on nPerf servers.

The measured bit rate can be impacted by the quality of the user's local network, especially since the expected flow is high. Thus, for an optical fiber internet connection, a local WiFi or Power-Line connection can greatly reduce performance. However, since these constraints are identical to all market operators, they do not bias the comparison. In addition, the user is made aware of these constraints and invited to use a wired local connection for testing very high speed.

4.2.2 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task.

These servers are located with hosts in Switzerland and abroad. Switzerland providers are welcome to install nPerf servers, that's free!

The total bandwidth available in Switzerland is greater than 220 Gb/s.

4.3 Statistical accuracy

With regard to the total volume of unit tests, the statistical precision used in this publication is:

- ✓ 3% for absolute values
- ✓ 1 point for percentages

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If, for a given indicator, one or more operators have results very close to the best, in the confidence interval defined above, these will be share first place.

4.4 Filtering of test results

The results obtained are subject to automatic and manual checks to avoid duplication and to rule out possible abusive or fraudulent use (massive tests, robots ...).

Tests performed on cellular connections (2G, 3G, 4G) are also excluded from this barometer.

5 You too, participate in the nPerf panel!

To participate in the panel, simply test your connection on the website www.nperf.com. For mobile Internet, you can also use the nPerf app, available for free on the Apple AppStore for iPhone and iPad, on Google Play for Android devices and on the Windows Store for Windows Phone and Windows Mobile devices.

6 Custom analysis & contact

Do you need further study or want to get the raw data, punctually or automatically, to compile it yourself?

You can contact nPerf via www.nPerf.com "Contact Us" section or directly from the mobile app.

Phone contact: +33 482 53 34 11

Address: nPerf SAS, 87 rue de Sèze, 69006 LYON, France

Stay in touch with us, follow us!