



Mobile performance across Switzerland:

A look at mobile network performance in Geneva, Zürich, and across Switzerland - 2H 2020

Providing strong service across an entire nation isn't an easy task. Excelling in big cities doesn't necessarily mean that strong service will translate to success in other areas of a nation. Our report covers performance from dense urban areas, smaller villages, rural spaces, and roadways to paint a complete picture of the consumer mobile experience at the national level.

In the second half of 2020, we conducted over 55,000 tests across the entirety of Switzerland to show you how the operators performed. Read on to learn more about real-world mobile performance across Geneva, Zurich, and all of Switzerland.



Key takeaways:

Salt delivers solid text results. Salt tied for second place for text performance in Switzerland, and the operator’s excellent Text RootScore of 97.7 wasn’t far behind those of the competition. Salt also performed relatively well in the accessibility category, with a strong score of 94.6. Salt's aggregate median download speed of 32.1 Mbps trailed the speeds recorded by Sunrise and Swisscom.

Sunrise ranks first in accessibility and text. Sunrise finished first in accessibility and text, but second across all other categories of our National RootScore results. With scores above 90 in all categories, performance from Sunrise was strong across the board but slightly trailed that delivered by Swisscom. Sunrise also delivered the second-fastest aggregate speed across all of our testing in Switzerland, at 84.0 Mbps, which was more than double the speed of Salt.

Swisscom shines in national testing, with the best combination of speed and reliability. With outstanding performance across all categories, Swisscom won five of seven National RootScore Awards for Switzerland, including Overall, Reliability, Speed, Data, and Call. Swisscom delivered the fastest median download speed in Switzerland at 128.1 Mbps and reached scores above 94 for all categories.

5G is the next wave of connectivity and 5G service continues to grow within Switzerland. Our results show that Sunrise delivered the fastest 5G median download speeds across our testing, with Swisscom not far behind. See the Geneva and Zurich sections for city-specific 5G speeds and details.

Switzerland RootScores 2H 2020

Rank	Overall	Reliability	Accessibility	Speed	Data	Call	Text
1	97.1	98.0	96.2	94.8	97.6	96.1	99.1
2	95.9	97.0	95.5	90.1	95.8	94.1	97.7, 98.0
3	91.1	93.7	94.6	76.9	90.5	87.6	

Note: Our Accessibility RootScore Award was first introduced in 1H 2020.

● Salt ● Sunrise ● Swisscom

Mobile performance in Geneva

Swisscom wins the most RootScore Awards, but Sunrise impresses with the fastest overall speed and best 5G performance.

Salt's performance good for most mobile usage but falls behind the competition: Salt delivered overall median download speeds between 50 and 200 Mbps in 29% of tests, which is fast enough for most typical mobile activities. While the operator ranked third in all seven award categories, Salt delivered strong RootScores above 90 in five of those.

Sunrise delivers winning call, speed, and text results in Geneva: Sunrise's speeds in Geneva were exceptional, with the fastest overall download speed at 184.4 Mbps and the fastest 5G median download speed at 389.2 Mbps. Sunrise delivered overall speeds of at least 200 Mbps in an impressive 47% of tests in Geneva (with 20% of those also above 500 Mbps), while its dropped call rate was a perfect 0.0%. Sunrise shared the Call, Speed, and Text RootScore Awards with Swisscom and placed second in all remaining categories.

Swisscom shares or wins outright in all RootScore Award categories: Swisscom's speeds were consistently fast, clocking at least 200 Mbps in an outstanding 41% of tests. Swisscom's overall speed in Geneva fell just behind that of Sunrise, at an impressive 153.4 Mbps. Swisscom delivered the best data reliability in Geneva, zero blocked calls, and a solid dropped call rate of only 0.3%. Swisscom won outright or shared all RootScore Awards, including an outright win for the new Accessibility Award.

Geneva RootScores 2H 2020

Rank	Overall	Reliability	Accessibility	Speed	Data	Call	Text
1	99.6 (Swisscom)	99.8 (Swisscom)	98.8 (Swisscom)	94.3 (Sunrise) 99.9 (Swisscom)	99.9 (Swisscom)	98.2 (Sunrise) 99.5 (Swisscom)	98.5 (Sunrise) 98.0 (Swisscom)
2	98.0 (Sunrise)	98.7 (Sunrise)	96.9 (Sunrise)		97.3 (Sunrise)		
3	91.7 (Salt)	94.7 (Salt)	94.0 (Salt)	73.9 (Salt)	89.3 (Salt)	90.3 (Salt)	96.5 (Salt)

Note: Our Accessibility RootScore Award was first introduced in 1H 2020.

● Salt ● Sunrise ● Swisscom

Median download speeds in Geneva (Mbps)



Salt



Sunrise



Swisscom



Geneva

A look at 5G speed and availability in Geneva

Median download speeds (Mbps)

Scale: 0-400 Mbps

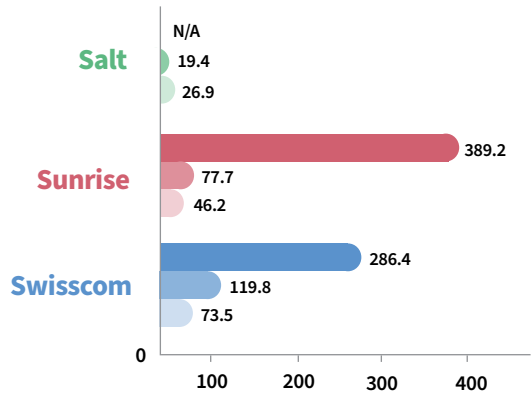
5G — Mixed mode — Non-5G

Overall

26.8

184.4

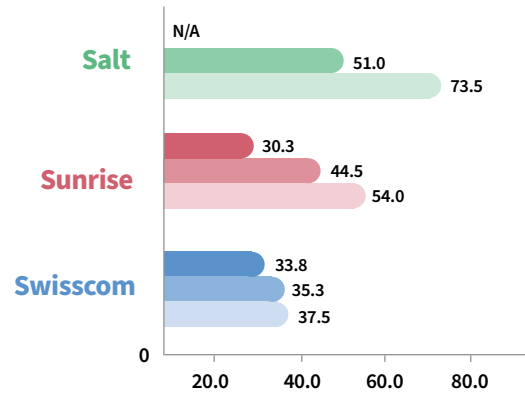
153.4



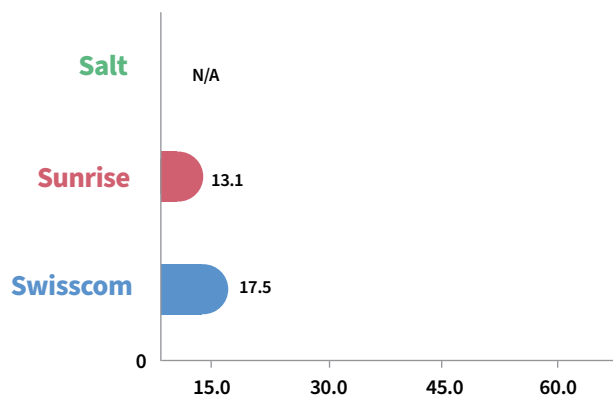
Latency

Scale: 0-80ms

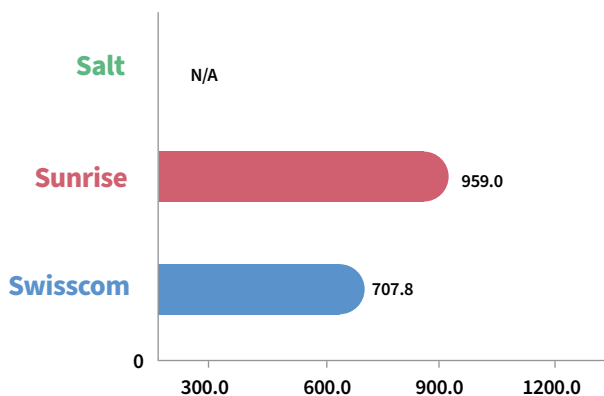
5G — Mixed mode — Non-5G



Time to download a 600MB video on 5G (sec)



5G maximum download speed (Mbps)



5G speeds and availability were generally strong in Geneva, with Sunrise registering the fastest 5G median download speed and the highest 5G availability rate.

Salt did not register enough tests on 5G for us to characterize a median download speed. It did, however, register 0.9% of tests on mixed mode* at a median download speed of 19.4 Mbps.

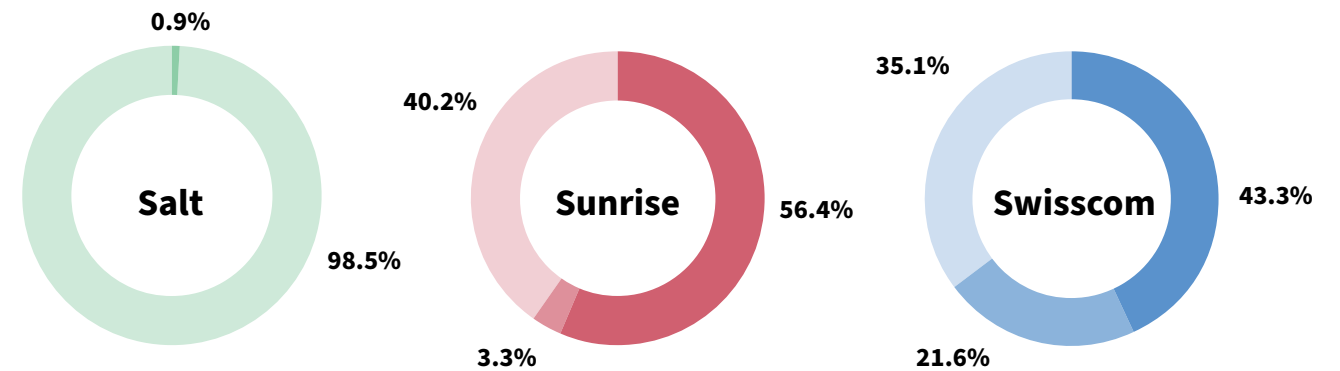
Sunrise delivered Geneva's fastest 5G median download speed at 389.2 Mbps and a blazing-fast 5G maximum download speed just short of 1 Gbps, at 959.0 Mbps. But the Sunrise story isn't just about speed. The carrier also led the way in Geneva with the most 5G availability (56.4% of tests were recorded on 5G).

Swisscom clocked a fast 5G median download speed of 286.4 Mbps and a 5G maximum download speed of 707.8 Mbps, though both fell short of Sunrise's 5G speeds. For 5G availability, Swisscom showed an impressive rate of 43.3%, but again slightly trailed Sunrise. Swisscom registered the fastest non-5G speed in Geneva, at 73.5 Mbps.

To measure 5G availability, we calculate the percentage of time we are able to access a carrier's 5G network across our suite of data tests. However, since mobile users will sometimes connect to 5G for only a portion of their activity, we capture availability and speed results for "mixed mode" data activity and availability. Mixed mode data activity results represent the user experience of connecting to 5G with their smartphone and then switching to LTE during the same data activity, or vice versa.

Availability (%)

5G — Mixed mode — Non-5G



Overall speed intervals (across all technology types: 5G and non-5G combined)

Operator	0-50 Mbps	50-100 Mbps	100-200 Mbps	200-500 Mbps	500+ Mbps
Salt	68%	21%	8%	3%	0%
Sunrise	21%	11%	21%	27%	20%
Swisscom	15%	19%	24%	37%	4%

Mobile performance in Zürich

Impressive speeds across the board, with Swisscom providing the fastest overall speed and Sunrise clocking the fastest speed on 5G.

Salt offers strong text performance in Zürich: Salt delivered overall speeds between 50 and 200 Mbps in 33% of tests, which is fast enough for most any mobile activity. For RootScore Awards, Salt tied for second place in text. Salt's overall median download speed of 31.0 Mbps trailed that of Sunrise or Swisscom.

Sunrise delivers winning results in 5 out of 7 categories: With an overall median download speed of 104.3 Mbps, Sunrise's speeds in Zürich were exceptional. Sunrise delivered overall speeds between 100 and 500 Mbps in an impressive 43% of tests in Zürich and delivered impressive results overall. Sunrise won the Text RootScore Award outright and shared the Accessibility, Call, Overall, and Reliability RootScore Awards with Swisscom.

Swisscom registers the fastest overall speed in Zürich: Swisscom's overall median download speed of 162.6 Mbps was the fastest among all three operators in Zürich, and speeds were consistently fast, clocking at least 200 Mbps in an impressive 42% of tests. Swisscom also registered the fastest 4G LTE speed in Zürich, at 86.1 Mbps, and delivered the best data reliability, winning the Data and Speed RootScore Awards outright. Swisscom shared awards with Sunrise in four categories and tied for second place with Salt for text.

Zürich RootScores 2H 2020

Rank	Overall	Reliability	Accessibility	Speed	Data	Call	Text
1	97.6 (Sunrise) 97.7 (Swisscom)	98.0 (Sunrise) 98.0 (Swisscom)	97.2 (Sunrise) 96.4 (Swisscom)	99.6 (Swisscom)	99.5 (Swisscom)	96.0 (Sunrise) 95.7 (Swisscom)	99.5 (Sunrise)
2				96.2 (Sunrise)	98.2 (Sunrise)		98.2 (Salt) 98.0 (Swisscom)
3	92.1 (Salt)	95.0 (Salt)	93.5 (Salt)	76.8 (Salt)	90.8 (Salt)	89.8 (Salt)	

Note: Our Accessibility RootScore Award was first introduced in 1H 2020.

● Salt ● Sunrise ● Swisscom

Median download speeds in Zürich (Mbps)



Salt



Sunrise



Swisscom

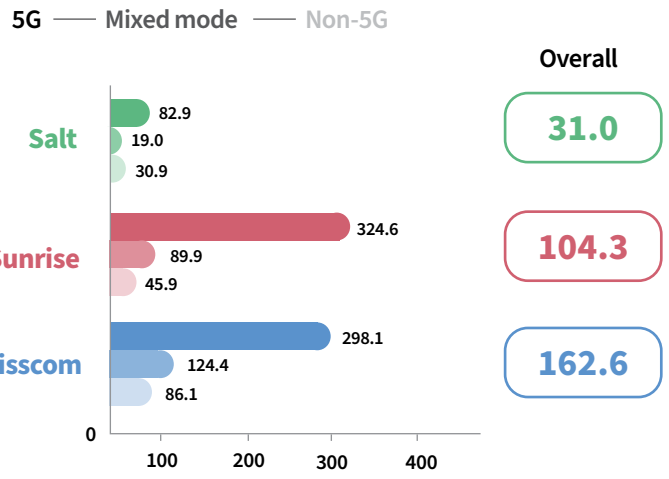


Zürich

A look at 5G speed and availability in Zürich

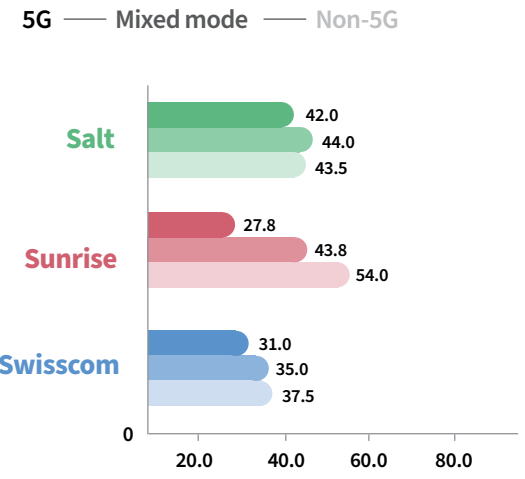
Median download speeds (Mbps)

Scale: 0-400 Mbps



Latency

Scale: 0-80ms



5G speeds and availability were generally strong in Zürich, with Sunrise clocking the fastest 5G median download speed and Swisscom with the highest 5G availability rate.

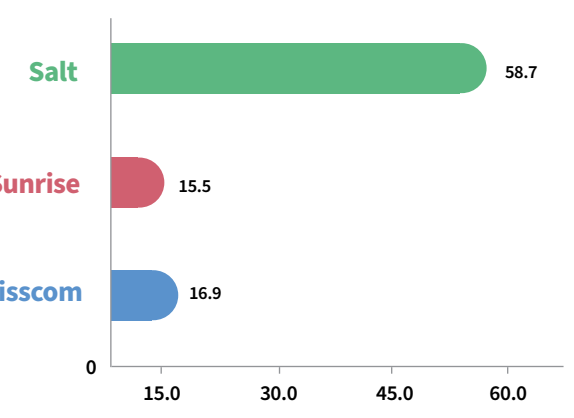
Salt offered more 5G availability in Zurich than in Geneva, but its 2.5% availability and 89.2 Mbps 5G median download speed trailed what we found on the networks of Sunrise and Swisscom.

Sunrise outpaced the other carriers, offering the fastest 5G in Zürich. In fact, Sunrise delivered both the fastest 5G median download speed (at 324.6 Mbps) and the fastest 5G maximum download speed (at an outstanding 895.5 Mbps). Its 5G availability of 39.1% was strong but fell slightly behind that of Swisscom.

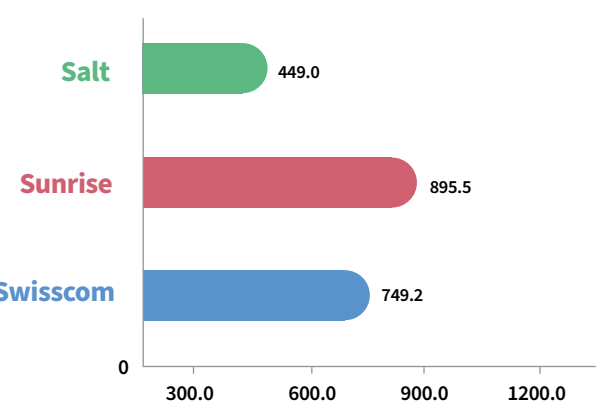
Swisscom showed an impressive 5G availability rate of 45.6%, with a mixed mode* rate of 25.4% that is markedly higher than the other operators. While mixed mode is not “pure 5G” it could indicate signs of expanded 5G to come. For comparison, Sunrise was on mixed mode for only 8.1% of tests and Salt only 1.0%. Swisscom’s 5G median download speed came in behind Sunrise at 298.1 Mbps, and Swisscom’s mixed mode median download speed was a respectable 124.4 Mbps.

To measure 5G availability, we calculate the percentage of time we are able to access a carrier’s 5G network across our suite of data tests. However, since mobile users will sometimes connect to 5G for only a portion of their activity, we capture availability and speed results for “mixed mode” data activity and availability. Mixed mode data activity results represent the user experience of connecting to 5G with their smartphone and then switching to LTE during the same data activity, or vice versa.

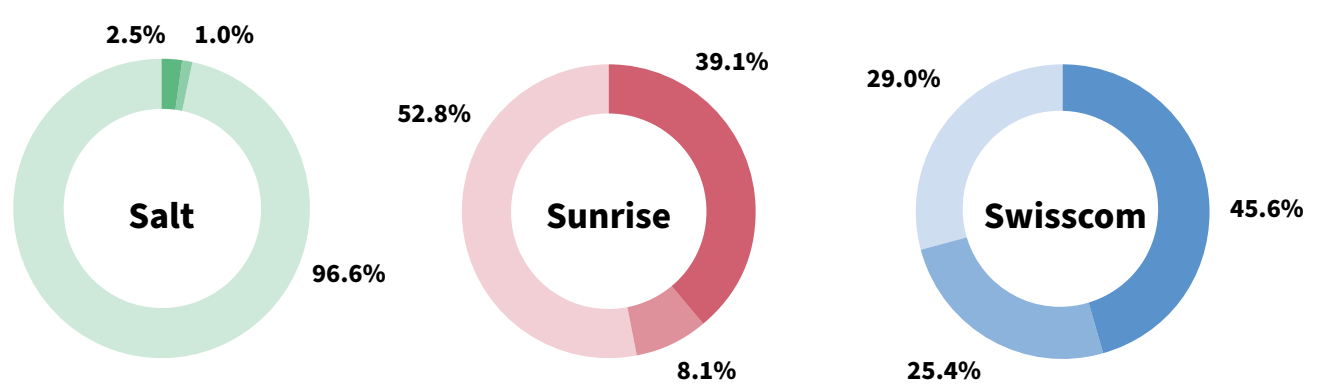
Time to download a 600MB video on 5G (sec)



5G maximum download speed (Mbps)



Availability (%)



Overall speed intervals (across all technology types: 5G and non-5G combined)

Operator	0-50 Mbps	50-100 Mbps	100-200 Mbps	200-500 Mbps	500+ Mbps
Salt	65%	22%	11%	2%	0%
Sunrise	30%	19%	18%	25%	7%
Swisscom	19%	15%	24%	33%	9%

How we test

We believe that real-world results come from real-world testing. All RootMetrics testing is conducted from the consumer's point of view. For Switzerland national and metro testing in 2H 2020, we used the Samsung Galaxy S20 5G device to test the Salt network, Huawei P40 Pro to test the Sunrise network, and the LG V60 to test the Swisscom network. All phones were purchased off the shelf from carrier stores to test both 4G LTE and 5G performance, and tests were conducted during the day and night while walking, at indoor locations, and driving. See our [methodology page](#) to learn about our device benchmarking processes.

To ensure our results are current and reflect shifting consumer behaviors and emerging technologies, we've made two notable changes to our methodology in 2020. We introduced our new Network Accessibility RootScore Award, which offers a holistic look at accessibility performance across data, call, and text testing and includes latency results during data testing, as well as speed results during call and text testing. We also fine-tuned our Network Speed RootScore category in 2020; we've updated various speed thresholds to capture the most accurate possible picture of when users experience diminishing returns based on changing end-user expectations and performance. As a result, Network Speed RootScores from 2020 cannot be compared to those from 2019 or earlier. To learn more about our testing, visit the [methodology page](#) of our website.

A note about our 5G results in Switzerland

With all three operators having launched 5G in Switzerland, this marks the first test period in which we've used 5G-enabled smartphones to test network performance on both 5G and other network technologies, such as 4G LTE or sub-4G LTE. Because 5G users will likely switch from 5G to 4G LTE (or vice versa) during a typical mobile activity, the metrics in this report, unless explicitly stated as 5G or 4G LTE, reflect performance across all network technologies, including 5G where available.





For more information, visit

