

State of Mobile Networks: Argentina (December 2016)

Argentina is closing the 4G gap with its neighbors. Despite having launched LTE less than two years ago, Argentine operators have made some big strides in expanding 4G's reach, according to our latest tests. But as we've seen in our previous reports, their 4G speeds still lack punch. In our newest report on Argentina, OpenSignal compared the mobile data performance of the country's three major operators, drawing on 307 million measurements.

Personal wins our speed crown

We recorded the fastest 4G speeds in Argentina on Personal's LTE network. Its download average of 16.1 Mbps was 3 Mbps ahead of its closest rival Claro in our tests. We also measured the fastest 3G speeds and overall speeds on Personal networks.

Movistar excels in our 4G availability tests

While Movistar's LTE network may not have been as fast as Personal's in our tests, it was able to provide a 4G signal much more often. OpenSignal users were able to connect to a Movistar 4G signal 73.6% of the time.

Argentina still lags in 4G speed

With an average LTE download connection of 12.2 Mbps, Argentina is well behind most countries — including many of its Latin American neighbors — in 4G speed.

4G availability and overall speed are improving

While 4G speeds are still relatively slow, network expansion means users are seeing LTE signals more regularly, leading to higher 4G availability scores. And as 4G availability improves, so do overall speeds as Argentines get access to relatively faster LTE connections more often.

REPORT FACTS



Report Location	Argentina
Data Sample Size	306,946,286
User Sample Size	17,404
Sample Period	Jul 1st - Sep 30th 2016

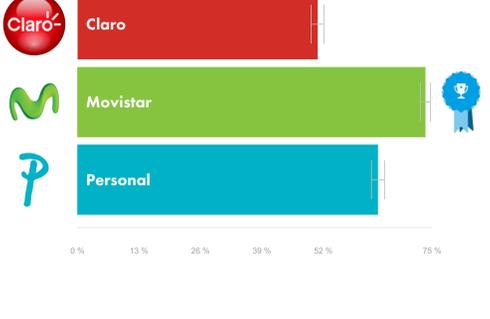
Overall Network Comparison



THE OPENSIGNAL APP: TESTING NETWORK PERFORMANCE ON MILLIONS OF PHONES GLOBALLY

Our app continually runs tests to measure the real world experience users receive. Instead of relying on user-initiated or drive-test simulations, we are able to paint a holistic picture of network's performance through our background tests and crowdsourcing techniques -- all the while protecting the privacy of our millions of active OpenSignal users. The app has been downloaded over 15 million times collecting billions of measurements.

Network Availability Comparison

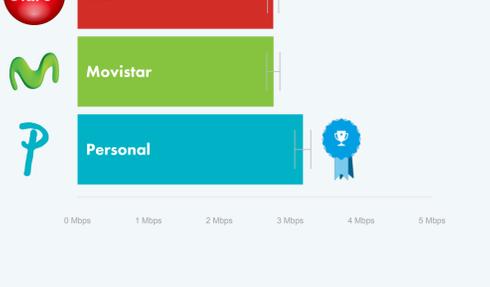


AVAILABILITY: 4G
This metric shows the proportion of time LTE subscribers on each network have a 4G (LTE) connection available to them. It's a measure of the proportion of time users have a 4G signal on a network rather than a measure of geographic or population coverage.

Network Speed Comparison



DOWNLOAD SPEED: 4G
This metric shows the average download speed on each network on 4G (LTE) connections.



DOWNLOAD SPEED: 3G
This metric shows the average download speed on each network on 3G connections.



DOWNLOAD SPEED: OVERALL
This metric shows the average download speed experienced by a user across all of an operator's networks. Overall speed doesn't just factor in 3G and LTE speeds, but also the availability of each network technology. Operators with lower LTE coverage tend to have lower overall speeds because their customers spend much more time connected to slower 3G networks.

Network Latency Comparison



LATENCY: 4G
This metric shows the average latency on each network on 4G (LTE) connections. Latency, measured in milliseconds, is the delay data experiences as it travels between points in the network. A lower score in this metric is a sign of a more responsive network.



LATENCY: 3G
This metric shows the average latency on each network on 3G connections. Latency, measured in milliseconds, is the delay data experiences as it travels between points in the network. A lower score in this metric is a sign of a more responsive network.

Analysis

Argentina may still be a newcomer to LTE, but we're seeing some signs of its 4G rollout reaching maturity. Latching onto an LTE signal is becoming a much easier feat as operators improve their network reach, and while 4G speeds may still be slow, LTE's increased accessibility means overall average speeds are on the rise.

For this report's third look at mobile network performance in Argentina, we drew on 307 million measurements collected between July 1 and Sept. 30 by 17,404 smartphone users. Since publishing our [last Argentina report](#) in June, OpenSignal has made some adjustments to both the way we collect data from our smartphone apps and the methodology we use to parse that data. The update allows us to make more measurements, examine new types of network metrics and hone the precision of the measurements we're always collecting, helping us isolate the typical consumer mobile experience more effectively (for more details, see [this blog post](#)). The changes haven't affected our overall rankings of networks in Argentina or around the world, but for sake of analytical rigor we aren't making any direct comparisons between results collected from the two different methodologies.

For this report, we examined the 3G and 4G performance of Argentina's three nationwide operators: América Móvil's Claro, Telefonía's Movistar and Telecom Argentina's Personal. We measured speeds and availability on all three operators' networks, and for the first time, we examined network latency, which is a measure of a data connection's reaction time. First let's take a look at the accessibility of Argentina's LTE services.

Signal reach vs. speed

As was the case in our June report, Movistar took top honors in 4G availability. Rather than measure geographic coverage, OpenSignal's [availability metric](#) tracks the proportion of time users have access to a particular network. In Movistar's case our testers were able to latch onto an LTE signal 73.6% of the time. Personal came in second in our tests with an availability score of 63.6%, but Claro clearly has some catching up to do. Our users were only able to find a Claro LTE connection half the time.

While Movistar won our 4G availability award easily, Personal accomplished the same feat in the 4G speed category. We measured average download speeds on Personal's LTE network at 16.1 Mbps, 3 Mbps faster than its nearest competitor Claro. Movistar brought up the rear in our LTE speed rankings with average connections under 10 Mbps. In 3G speeds, Personal was again the fastest in our tests, averaging HSPA download links of 3.2 Mbps.

Personal's higher 3G and 4G speeds made it a lock for our overall speed award, which calculates the typical speed consumers experience across an operator's mobile data networks. Personal averaged 8 Mbps across our LTE and 3G network tests. Movistar beat out Claro in the overall speed category, however, despite Claro's superior LTE speed test results. That's due to Movistar's impressive 4G availability. Even though our users connected to Movistar's LTE network at slower speeds than Claro, they were able to find that LTE network 25% more often, which in turn boosted Movistar's overall speed.

Our remaining set of awards, for latency, were split between Movistar and Claro, which had the lowest 4G and 3G latencies respectively in our tests. Low latency connections are typically more responsive connections, resulting in faster loading webpages and less lag time in communications apps. We measured 4G latencies on all three operators of 60 milliseconds or less, though Movistar scored lowest (best) at 56.6ms. Meanwhile Claro had the most responsive 3G network in our tests with a latency of 134.3ms.

Playing catch up

Argentina was one of the last countries in South America to launch LTE, and since its first 4G services went live at the end of 2014, it has lagged behind much of the world in LTE performance. That said, we're definitely seeing evidence in this report that Argentina has made up for lost time.

LTE availability is steadily increasing among the country's operators, and Argentina is no longer near the bottom of the global rankings when it comes to LTE accessibility. In our [recent State of LTE report](#), Argentina fell right in the middle of the 78 countries we analyzed in terms of 4G availability. Its nationwide availability score of 63.2% put Argentina ahead of regional peers like Brazil, Chile and Colombia and on par with many countries in Western Europe.

Argentina, however, is still well behind its neighbors and the global community in 4G speed. Its countrywide average LTE download speed was in 12.2 Mbps, more than 5 Mbps below the global average and the lowest among the South American countries we examined in our LTE report. Argentine operators have devoted relatively limited amounts of spectrum to LTE so far, which in turn limits the speeds at which its consumers have connect.

That said, Argentina's increased access to LTE signals is helping boost the typical speeds available to consumers. Though Argentina's LTE connections may be slow, they're still a lot faster than 3G connections, therefore the more time consumers spend connected to LTE, the faster their overall average connection speeds become. When OpenSignal compared overall speeds in our [Global State of Mobile Networks report](#) in August, we measured Argentina's typical connection speed at 6.5 Mbps. While that speed still fell in the bottom half of our worldwide ranking table, it's a significant improvement over its global standings in 4G speed alone.

Just as we've seen big improvements in 4G availability, we may soon see similar boosts in 4G speed. Argentine operators recently acquired new spectrum in the 700 MHz band, which could add considerable capacity to their LTE networks. Movistar has already begun [testing new LTE-Advanced technologies](#) using that spectrum that potentially could double its 4G speeds. As this report shows, operators have made up a lot of ground in the 18 months after LTE services first went live in Argentina. Given another 18 months, they may very well close that gap completely.

METHODOLOGY NOTES

OpenSignal data is collected from regular consumer smartphones and recorded under conditions of normal usage. As opposed to drive-test data, which simulates the typical user experience by using the same devices to measure network performance in a small number of locations, we take our measurements from millions of smartphones owned by normal people who have downloaded the OpenSignal app.

These measurements are taken whenever users happen to be, whether indoors or out, in a city or in the countryside, representing performance the way users experience it. For more information on how we collect and analyze our data see our [methodology page](#).

For this particular report, 306,946,286 datapoints were collected from 17,404 users during the period: Jul 1st - Sep 30th 2016

All data has been collected from users of the OpenSignal mobile app for Android or iOS.

For every metric we've calculated the statistical confidence interval and plotted this on all of the graphs. When confidence intervals overlap for a certain metric we can't actually be sure which of the best performing operators has the best performance.

For this reason some metrics have multiple operator winners when we've judged that the data is too close to call a victory.