

State of Mobile Networks: South Africa (September 2018)

In the six months since our last report on the South African mobile market, we've seen one operator extend its lead at the top of our awards table. Vodacom won six out of seven of our national awards, and it scored highly in all of our regional speed and latency categories. However, MTN topped our coveted national 4G availability metric, and dominated LTE reach in the regions. We've analyzed more than 433 million data samples collected from nearly 40,000 devices between May and July to examine the 3G and 4G experience provided by South Africa's four main operators, both at a national level and in the country's three largest cities.

Report Facts

433,860,547
Measurements

39,707
Test Devices

May 1 - Jul
29, 2018
Sample Period

South
Africa
Report
Location

Highlights

Vodacom king of the speed awards

Vodacom won all four of our national network speed commendations, including the coveted 4G download speed award. The leader increased its LTE speed by over 3 Mbps in our measurements, while its rivals' speeds have stayed fairly stagnant over the past six months.

MTN extends its lead in 4G availability

MTN once again topped our 4G availability table, extending its lead to 6 percentage points ahead of its nearest rival. But there were just 12 percentage points separating all four operators, as our LTE availability scores were much closer than those in speed.

Vodacom and MTN in the top tier

Vodacom comfortably won our overall speed category with a score of over 17 Mbps, followed by MTN with 15 Mbps while the other two operators both scored under 10 Mbps. This disparity was reflected across much of our analysis, where we saw a "two tier" pattern with Cell C and Telkom falling some way behind the top two.

Vodacom and MTN rule in the cities

Vodacom dominated our cities table, scoring highly in all six of our speed metrics and scoring a clean sweep in 4G latency. MTN won our 4G availability award in two cities but was held to a surprise draw by Cell C in Cape Town.

Awards Table

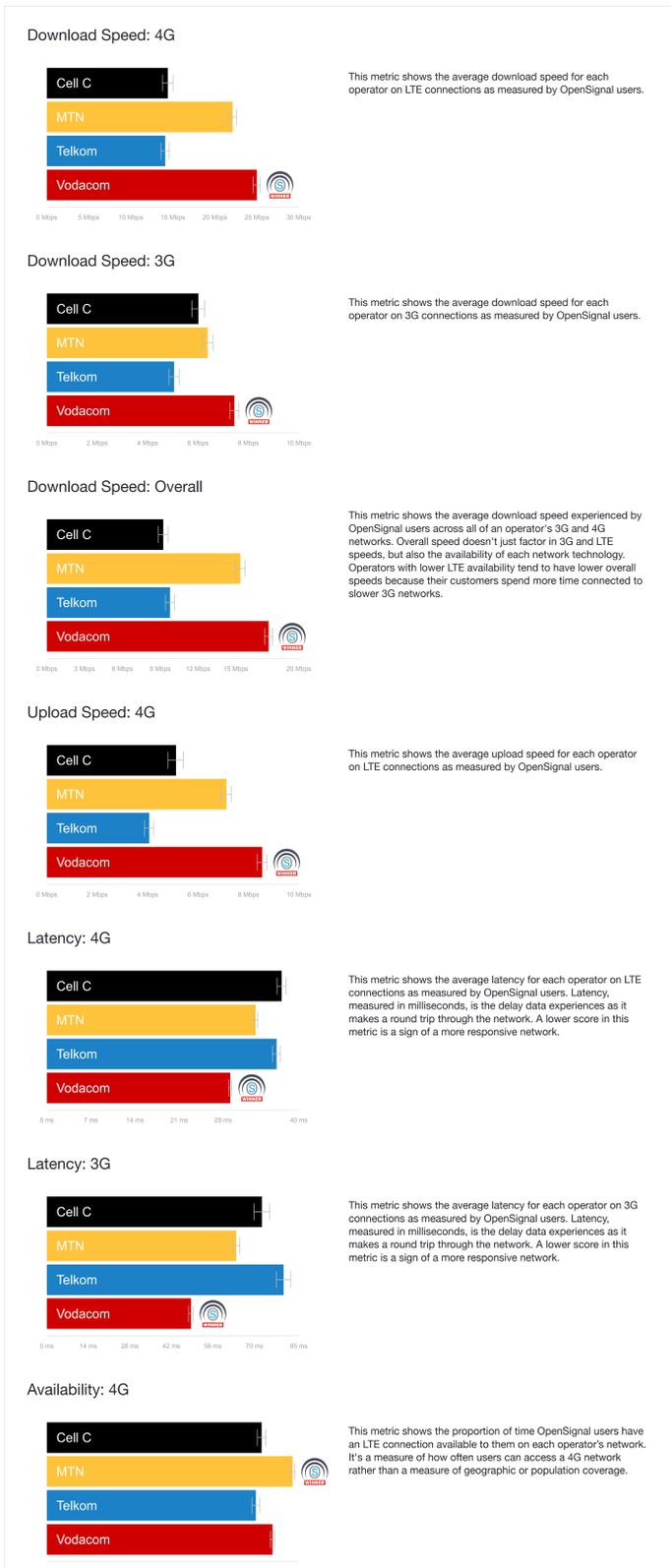
	Download Speed: 4G	Download Speed: 3G	Download Speed: Overall	Upload Speed: 4G	Latency: 4G	Latency: 3G	Availability: 4G
Cell C							
MTN							
Telkom							
Vodacom							

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Performance by Metric



Regional Performance

This chart shows the regional winners in each category OpenSignal measures. Click on the icons to see a more detailed graph showing each operator's metrics in a particular region.

Legend: T Telkom C Cell C M MTN V Vodacom

Region	Download Speed: 4G	Download Speed: Overall	Latency: 4G	Availability: 4G
Cape Town	M V	M V	V	C M
Durban	M V	M V	V	M
Johannesburg	V	V	V	M

Analysis

Vodacom has now firmly established itself as the dominant South African mobile operator in our metrics, showing its rivals a clean pair of heels in all of our national speed and latency categories. But MTN won our coveted 4G availability award, and the top two operators remain some way ahead of their rivals in most of our metrics, creating two distinct tiers of operators.

In our third report on South Africa, we analyzed more than 433 million data points collected from 39,707 mobile users in the 90 days starting June 01, 2018. We have compared the 3G and 4G experience offered by Cell C, MTN, Telkom and Vodacom on the national level, while we have included a regional analysis of the country's three biggest cities of Cape Town, Durban and Johannesburg. First up, let's look at our speed metrics, where Vodacom is winning the race.

Vodacom: South Africa's speed king

Vodacom swept the board in our national speed awards, winning all four for 4G download and upload, 3G download, and overall download speeds. The Vodacom-controlled operator has pulled ahead of the pack in the last six months, after being held to a draw with MTN in both our 4G download and overall speed categories in our last report.

In our 4G download speed metric, Vodacom increased its average speed by over 3 Mbps to just under 25 Mbps. MTN's speed has stalled on around 22 Mbps in our measurements. Elsewhere our users on both Cell C and Telkom's networks saw their average 4G download speeds hold steady at around 14 Mbps. This notable gap between Vodacom and MTN and the other two national operators is part of a wider trend where we are seeing two tiers of user experience in our South Africa analysis.

Vodacom's success in 4G download helped it win our overall speed category, which measures the combined speeds of operators' 3G and 4G connections and the level of access to each technology. Vodacom also increased its score in this metric by over 3 Mbps to reach an average speed of 17.5 Mbps, topping MTN's 15.4 Mbps, while Cell C and Telkom were some way behind with scores of under 10 Mbps. Cell C did see an increase of some 1.5 Mbps, likely the result of increases in our 3G download speed and 4G availability measurements.

Vodacom kept its title at the top of our 3G download speed category, with a score of 7.4 Mbps. But it was Cell C who saw the greatest increase in this metric over the past six months, as its score grew by over 1.5 Mbps to reach an average of 6 Mbps – overtaking Telkom and closing the gap on the top two. This could be a result of the [roaming deal](#) it signed with MTN at the end of May 2018, which allows Cell C to piggyback on its rival's 3G and 4G networks in areas where it previously had little or no coverage. But this seems to have had little effect on Cell C's 4G download speeds which have stayed fairly static since our last report.

In our 4G upload category, the disparity between the two tiers was more apparent, as Vodacom's winning average speed of 8.5 Mbps was more than double that of fourth-placed Telkom. This rift was also apparent in South Africa's biggest cities, where Vodacom scored an impressive 4G download rate of over 30 Mbps in Johannesburg – more than double that of Cell C and Telkom in our measurements. Meanwhile MTN and Vodacom drew in our 4G and overall download categories in both Cape Town and Durban with notably higher speeds than their rivals.

Both MTN and Vodacom have put significant investment into their networks to achieve these results. But Vodacom now claims it is being limited in extending its 4G reach by a [lack of available spectrum](#) in the sub-1 GHz bands, while MTN is [splitting its available spectrum](#) between 2G, 3G and 4G services. The regulator is creating further uncertainty in this area, [postponing a planned auction](#) in 2017 and proposing the creation of a shared [wireless open access network](#). But whichever road the government chooses to take, more spectrum resources need to be made available if the country hopes to continue to grow its mobile network speeds.

A closer-run race in 4G availability as MTN extends its lead

MTN once again topped our 4G availability metric with a score of 78%, extending its lead over closest rival Vodacom to over 6 percentage points. Vodacom's score of 72% in our measurements was followed by Cell C on 68% and Telkom with 66%. MTN saw the greatest increase since our last report of over 4 percentage points, while Cell C and Vodacom both increased their scores by over 2 points each.

The race was even closer in our regional metrics, where MTN scored over 80% 4G availability in all three cities – but was held to a surprise draw by Cell C in Cape Town. This pattern reflects a wider phenomenon we've observed in developing mobile markets, where operators are focused on rolling out 4G to as many people as possible. But 4G availability scores of over 80% are impressive in what is still an emerging LTE market, and the country is among the leaders in availability in its region as [LTE reach](#) in Africa grows.

Vodacom pulls ahead in latency

Vodacom won our 4G latency category, after drawing with MTN in our last report. Latency measures the response time of a network, and [lower latency scores](#) mean webpages begin loading quicker and real-time communications apps and online games experience less lag. Vodacom passed the 30 milliseconds threshold for the first time in our measurements, with a 4G latency score a full 4ms quicker than its closest rival MTN. Vodacom also scored a clean sweep in our 4G latency metric in South Africa's three biggest cities, with an impressive 24ms in Joburg, while the operator also trimmed over 12ms off its score to win our national 3G latency award.

The South African mobile market is still very much in its two-tier phase, with our users on Vodacom and MTN receiving a notably better experience than those on their rivals in almost all our metrics. But all the national operators are beginning to feel the pinch as their network spectrum resources become stretched thin. Repeated [auction postponements](#) and ongoing [regulatory uncertainty](#) is casting a shadow over the future of LTE in South Africa. Operators are taking action to mitigate the shortage by splitting and reforming their spectrum resources, but the government needs to continue to make fresh spectrum available so the country can take its place at the peak of 4G in Africa.

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Our Methodology

OpenSignal measures the real-world experience of consumers on mobile networks as they go about their daily lives. We collect 3 billion individual measurements every day from tens of millions of smartphones worldwide.

Our measurements are collected at all hours of the day, every day of the year, under conditions of normal usage, including inside buildings and outdoors, in cities and the countryside, and everywhere in between. By analyzing on-device measurements recorded in the places where subscribers actually live, work and travel, we report on mobile network service the way users truly experience it.

We continually adapt our methodology to best represent the changing experience of consumers on mobile networks and, therefore, comparisons of the results to past reports should be considered indicative only. For more information on how we collect and analyze our data, see our [methodology page](#).

For this particular report, 433,860,547 datapoints were collected from 39,707 users during the period: May 1 - Jul 29, 2018.

For every metric we've calculated statistical confidence intervals and plotted them on all of the graphs. When confidence intervals overlap for a certain metric, our measured results are too close to declare a winner in a particular category. In those cases, we show a statistical draw. For this reason, some metrics have multiple operator winners.

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