

# Dominant operators' data prices remain static while SA struggles to get and stay online

- ❖ **South Africa is ranked 35th out of 49 African countries on the RAMP Index's cheapest 1GB prepaid mobile data bundles.**
- ❖ **The cheapest 1GB of data in South Africa, offered by Telkom Mobile (ZAR99), costs seven times more than Egypt's cheapest, and three times that in Ghana, Kenya and Nigeria.**
- ❖ **Data prices remain unaffordable to the majority of people in South Africa, where 47% of the population does not use the Internet, according to RIA's 2017 After Access Survey.**
- ❖ **Although only half the population has access to the Internet, the penetration rate in South Africa is significantly higher than any other African country surveyed in 2017.**
- ❖ **Despite numerous public hearings on the cost of data, the new regulations announced by ICASA do not address this significant problem.**
- ❖ **Network coverage and service quality appear to retain even price-sensitive consumers, who may be attracted to Rain's new, incumbent-challenging 5c per MB offering.**

## Introduction

Almost half of South Africans (47%) over the age of 15 years do not use the Internet. This is one of the core findings of the 2017 After Access Survey conducted by Research ICT Africa (RIA). After collecting information on the access and use of ICTs in nine African countries, the Survey identifies the affordability of devices and data services as the main barriers to Internet access and use in South Africa. Close to 36 percent of non-Internet users in the country indicate that they cannot afford Internet-enabled devices, such as smartphones, and 15 percent state that the Internet is too expensive for them.

This policy brief provides an assessment of data prices and operator strategies in South Africa compared to other markets in Africa. RIA's African Mobile Pricing (RAMP) Index<sup>1</sup>, an index for prepaid mobile baskets of data and a voice/SMS mixture<sup>2</sup>, provides evidence that data prices are indeed unaffordable to the poor. To capture the dynamism of product and service offerings in Africa's prepaid mobile markets, RIA introduced new bundles in Q1 2018. For example, new data baskets measure the costs of 100MB, 500MB and 1GB data bundles available on daily, weekly and monthly validity periods.

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<sup>1</sup> A comprehensive database collecting prepaid mobile prices on a quarterly basis.

<sup>2</sup> Based on the basket configuration modelled by the OECD.

## Prepaid mobile pricing

South Africa is ranked 35th out of 49 African countries.

South Africa performed poorly in prepaid mobile 1GB data prices where RIA ranks South Africa 35th out of 49 African countries in Q1 2018, five spots lower than its ranking in Q3 2017. The cost of the cheapest 1GB of data in South Africa is USD8.28 (ZAR99) as of Q1 2018, seven times the cost of the cheapest 1GB basket in Egypt (USD1.13), and nearly three times the cost of the same basket in Ghana, Kenya and Nigeria. This is not surprising given that the market is dominated by two operators, Vodacom and MTN.

**The methodology is based on the OECD’s telecommunications price baskets as follows:**

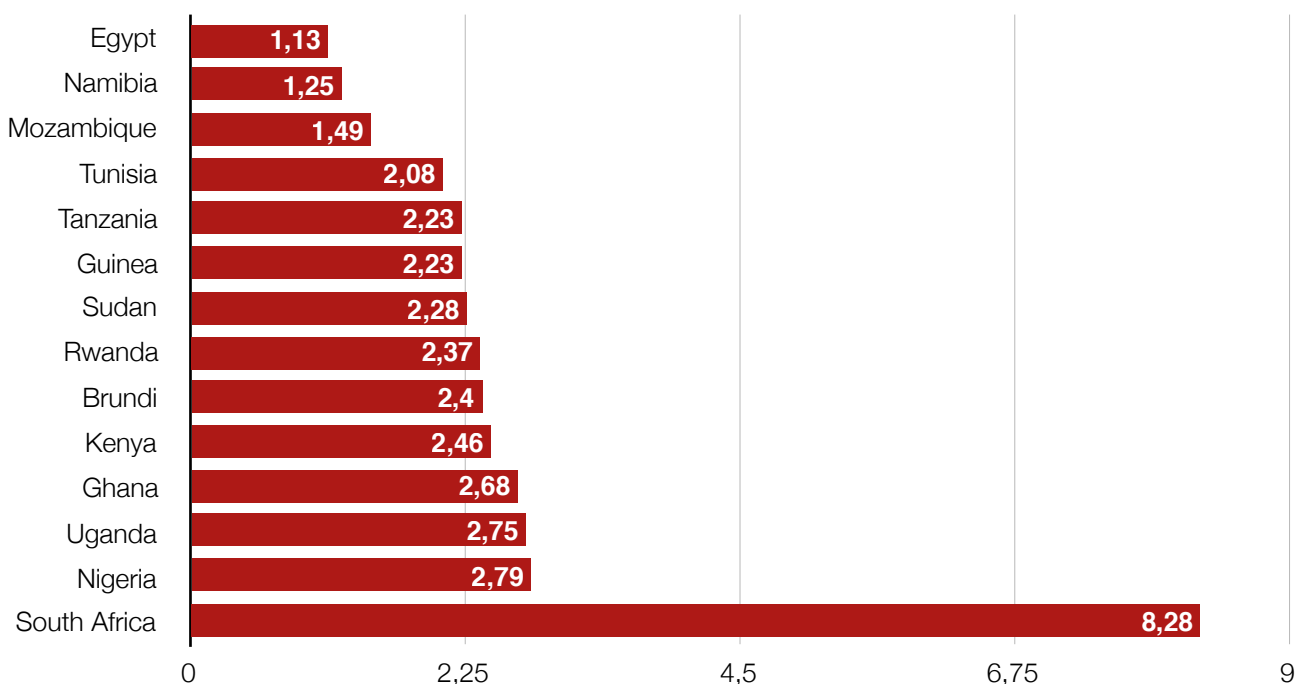
**Voice/SMS basket:** the cost of 30 prepaid mobile voice calls for a total of 50 minutes, distributed between destinations and ‘peak’ periods, added to that of 100 SMSs and divided by the subscription value for the period of one month.

**Data baskets:** the cost of 1GB, 500MB and 100MB prepaid mobile data bundles valid for monthly, weekly and daily periods. (Exact values are offered unless otherwise stated.)

**Conversion:** The cheapest baskets are converted to USD for comparison across African markets.

Demand-side survey figures confirm supply-side indicators of Vodacom-MTN dominance (more than 80%) in the South African market.

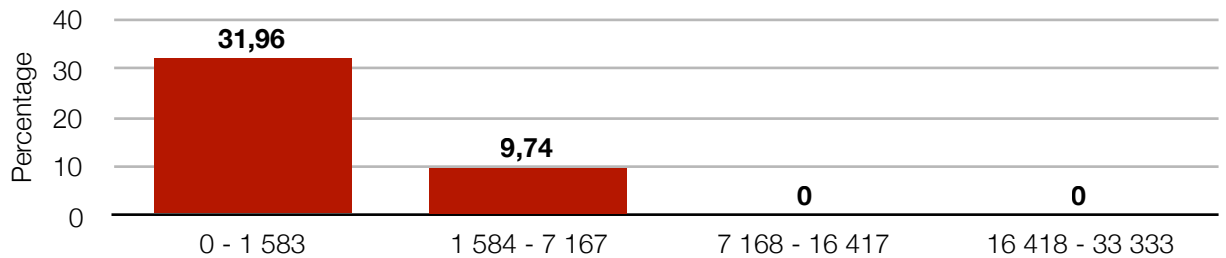
When asked who their primary mobile service provider is, 49% of the mobile phone owners in the After Access Survey claimed to use Vodacom while 39% stated MTN is their primary service provider. These results confirm the supply-side data which shows Vodacom and MTN to have more than 80% of the market. About 13% of mobile phone owners regard themselves primarily as Telkom subscribers, and only 1.4% declared themselves as primarily Cell C subscribers. As an unlisted company, Cell C is not required to disclose their customer numbers but, even if they did, the supply-side data would simply indicate the number of active SIMs, which would indeed hide whether or not each Cell C SIM is, in fact, a duplicate SIM of an individual subscribing primarily to another network.



**Figure 1: SA’s cheapest prepaid mobile 1GB data baskets compared to Africa’s top performers (USD)**

Source: RAMP Index, 2018

The price of data for low-income users should be a serious concern for policymakers and regulators in South Africa. The After Access Survey shows that those who do not have access to the Internet fall in the bottom two income categories (as shown in Figure 2). Of those who are connected, the majority depend on small data packages with a shorter validity period.



**Figure 2: Percentage of individuals who DO NOT have access to the Internet, by income group (ZAR)**

Source: 2017 Research ICT Africa After Access Survey

With the intensive-user market already saturated, operators are responding to the challenge of bringing low-ARPU customers online to use their services. Data from the RAMP Index show how MTN offers a range of products for price-sensitive users, while Vodacom's "4U" package is tailored for customers. Telkom offers a 150MB daily bundle for ZAR10, cheaper than the ZAR 15 charged by MTN for its 120MB bundle. Vodacom's price for a 100MB daily bundle also costs ZAR15.

MTN offers the cheapest 500MB data bundles for daily (ZAR50) and weekly (ZAR55) periods, but Telkom again offers the cheapest 500MB monthly bundle at ZAR69. Similarly, MTN offers the cheapest 1GB weekly bundle (ZAR70) but does not compare well in the 1GB monthly comparison. Vodacom's ZAR149 promotional package (2GB) offers the most value with an effective rate of ZAR74.5

The dominant operators are now beginning to target low-income earners with lower-cost data packages.

Table 1: Mobile operator data packages and costs (ZAR)						
Bundle size	Validity period	Cell C	MTN	Telkom	Vodacom	Rain
100MB	Daily	14	15 (120MB)	10 (150MB)	15	
	Weekly		17 (120MB)		17	
	Monthly	29	29	29	29	5
500MB	Daily	70	50			
	Weekly	90	55		60	
	Monthly	99	99 (600MB)	69	100	25
1GB	Daily		50			
	Weekly	140	70		80	
	Monthly	149	149	99	(2x1GB) 149	50

per GB, but Telkom's 1GB is still the cheapest at a nominal price of ZAR99.

The new, flat-rate offering of 5c per MB by South Africa's newest mobile data network operator "Rain" is likely to bring about changes to the data market. Although the extent of these changes is difficult to predict, Rain's strategy of using a flat rate to charge customers means that they have no cause to worry about restrictive validity periods and out-of-bundle charges. With this strategy, Rain now offers the cheapest tariffs across the board, a 100MB bundle will cost a customer ZAR5, significantly less expensive than the ZAR29 100MB offering of Cell C, MTN and Telkom. Rain's 500MB costs less than half that of Telkom's 500MB bundle and out-competes its 1GB bundle price too by being just about half the cost (ZAR50).

Although the competitive pricing strategy adopted by Rain is expected to pressurise the other operators to reduce their data price in fear of losing market share, Rain's data-only network can only be accessed by LTE-enabled devices and its coverage is limited to only some of South Africa's metros. Therefore, barring national network expansion and an increase in smartphone penetration in South Africa, Rain is unlikely to significantly alter the sector's landscape soon.

## Performance of mobile operators

The telecommunication industry is one of the biggest industries in South Africa. For the year ending March 2017, the industry generated about ZAR 150 billion in revenue. Vodacom has the largest revenue share with total revenue amounting to ZAR 64.7 billion (a 3.9% increase from the previous year), followed by MTN (ZAR 41.9 billion – a 4.7% increase). For the same period, Vodacom's service revenue increased by 5.6% to reach ZAR 52 billion, while that of MTN's increased by 1.9%. The increases in service revenue for these two operators were mainly due to growth in the subscriber base and increased demand for data products. In the same period, Vodacom's data revenue grew by 19.7% to ZAR 20.6 billion (making up 39.7% of service revenue), while that of MTN increased by 11.4% and contributed 34% to total revenue. MTN attributes its growth in revenue to improved 3G and LTE network quality alongside aggressive smartphone sales.

For the period ending March 2017, Cell C recorded the highest percentage revenue increase among all operators: 11%, to reach ZAR 14.6 billion, while Telkom's revenue grew by 7.9%. Telkom recorded the highest percentage increase in service revenue: 38.4%, while Cell C's service revenue increased by only 8%, taking it to ZAR 11.8 billion. Cell C attributed the strong revenue growth to its focused strategy of innovation, exceptional value in product offerings and customer-centric approach, while its lower service revenue was explicitly caused by the growth in data volumes (an increase of 67% to reach ZAR 4.4 billion).

A closer look at how the market evolves according to adjustments in operators' competition strategies shows that their intense focus on improving their network quality, speed and coverage is the most significant factor in earning market leadership. The subscriber bases of the two smaller mobile operators increased by higher percentages than those of the larger players in 2016/2017. Telkom and Cell C registered subscriber growth rates of 47.7% (from 2.7 million subscribers in 2016 to 4 million in 2017) and 20% (up to 15.5 million subscribers) respectively. It is

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The Vodacom subscriber base increased to 37.1m SIMs while MTN's subscriptions declined to 29.5m.

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important to note that these operators are growing from a much lower base than the two major operators, which makes their higher percentage growth rates unsurprising.

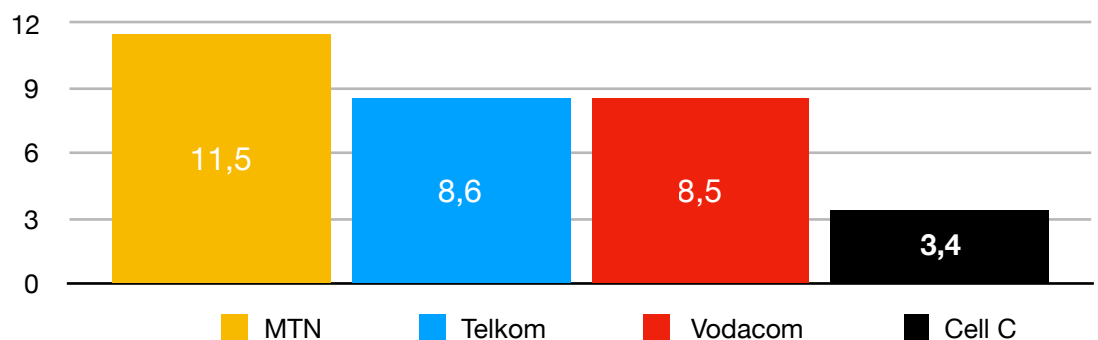
Vodacom's subscriber base grew by 8.6% to reach 37.1 million in 2017, double the subscriber base of Cell C. The company registered about three million new subscribers, a quarter of Cell C's total subscribers, and its prepaid subscriber base reached 32 million (up by 9.3%). Vodacom attributes the growth in its subscriber base to the new offering "Just For You": a customer-based product designed to offer customers a tailored mobile service based on their unique usage patterns. MTN increased its subscriber base by 0.6% to reach 30.8 million in 2016 but its subscriber base declined to 29.5 million subscribers in 2017. The effects of its turn-around strategy (more competitive pricing and improved service quality) may only be seen in its 2018 figures.

## Operator strategies

After several years of slow growth in operator revenues, and clinging to their traditional services of voice and SMS in the face of growing over-the-top (OTT) service adoption – such as Skype and WhatsApp – operators in South Africa have turned their attention to data revenues. Mobile operators have made significant network infrastructure investment to carry the vast volumes of data transmitted by bandwidth-intensive applications and platforms.

As part of its strategy to grow its network capacity, reduce its reliance on third-party transmission providers and improve network redundancy, and in an effort to catch up with the rate of investment by dominant operators, Cell C commenced replacement of its Core Transmission Legacy SDH technology with a new IP-MPLS and DWDM Core in 2016. Cell C attributes its good performance in the year ending March 2017 to significant investment in infrastructure and the rollout of additional sites, amounting to a capital expenditure of about ZAR 3.4 billion. A decline in capital expenditure (to ZAR 1.2 billion as reported by Cell C in December 2017) shows that the smallest operator was not able to hold to its strategy of improving network capacity.

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**Figure 3: Operators' capital expenditures (ZAR billions)**

Source: Operators' annual reports, 2017

After holding out on competitive data prices, and trying unsuccessfully to drive voice revenues, MTN has been forced to strengthen its data strategy. Vodacom which, together with Cell C, had been first-movers in embracing data strategies –

and in Cell C's case embracing OTTs – gained substantial market share from MTN. Vodacom, however, emerged from the short-lived price war as the premium quality provider and quickly adjusted its price upwards. However, its promotional offer of 2GB for the price of 1GB is likely to maintain its market share for a large portion of 2018.

For the year ending March 2017, MTN's strategy focussed on investing in infrastructure to improve its network coverage and quality. This included the refarming of its 900MHz spectrum in order to use its old 2G spectrum for providing 3G services. MTN has since allocated ZAR 11.5 billion to capital expenditure, and its Q3 2017 financial results demonstrated that the second-largest operator is playing catch up, investing more than its competitors in 2017.

Although it invested less than MTN in the last year, Vodacom has continued its strong investment strategy with a ZAR 8.47 billion injection made in the 2017 financial year, and invested the largest cumulative sum of the past three years.

Table 2: Revenue by operator (ZAR)			
	Total revenue	Service revenue	Data revenue share
<b>Vodacom</b>	64.7 billion (+3.9%)	52 billion (+5.6%)	40%
<b>MTN</b>	41.9 billion (+4.7%)	(increased by 1.9%)	34%
<b>Telkom</b>	31.8 billion (+7.9%)	(increased by 38.4%)	
<b>Cell C</b>	14.6 billion (+11%)	11.8 billion (+8%)	30%

*Source: Operators' annual reports, 2017*

*Notes: Service revenues for Telkom and MTN, as well as Telkom's data revenue share were not reported.*

Vodacom's strategy too has aimed to widen its 3G and LTE data coverage, improve voice quality, and increase data speeds. It has succeeded in covering 75.8% of the population with its 4G network (up from 58.2% in March 2016) and in reaching over 7 900 sites. Telkom's expenditure in the same period was also up to ZAR 8.6 billion, matching the investments made by Vodacom in 2017, though cumulatively far less over the previous three years.

Competition in the telecommunications industry today, where digital products are more in demand than ever, is no longer about pricing alone but rather who has the power to invest in a network, thereby providing high-quality and high-speed mobile services.

Large operators, such as Vodacom and MTN, are more likely to win this battle because their significant market share and larger profits are able to accelerate their investments relative to smaller operators, and respond to the demand for high-quality and high-speed services for which users are willing to pay a premium. Small operators are unable to attract and retain the customers favouring quality over price (who generally increase service revenue) and, as a result, have smaller surpluses to reinvest, forcing an over-reliance on loans. Small operators know, however, that this is the only way they can survive, hence the significant capital

Mobile operators invest in infrastructure in order to provide high-quality, high-speed mobile broadband services and attract subscribers.

Small operators are unable to retain high-spending customers who prefer quality over price, giving them smaller surpluses to reinvest and forcing an over-reliance on loans.

injections in both Cell C (3.4 billion) and Telkom (8.6 billion) for the extension of their high-speed networks. Both of these operators have had to significantly cut their costs of operating as part of their ongoing business strategy.

## Conclusion

The affordability of mobile devices and data services is the main barrier to Internet access in South Africa.

Although South Africa has by far the greatest network extension in Sub-Saharan Africa – it has the highest Internet penetration of African countries (50%) – affordability remains the main barrier for its users. With affordability an even bigger issue in other African countries, several of which have much lower data prices and a population that is generally poorer than South Africans, the policy question emerging is: can more people be brought online within the current policy environment, licensing frameworks and business models? Even when effectively regulated and cost-based, will the current competition-regulated, GSM, national license, high-cost spectrum model ever deliver universal Internet access?

The South African mobile market is dominated by two operators, Vodacom and MTN, owning about 80% of the market. They have successfully responded to changing consumer preferences over time. With deeply entrenched first-mover advantages, these operators have been able to invest billions of rands in building “world class” networks to provide quality services. New ways of enabling pricing pressure in the mobile market through regulated wholesale prices and network access is necessary, and to be urgently finalised as part of the much delayed ICASA market review, which ICASA has again given as the reason for being unable to address prices in their latest data regulations.

The price challenges of small operators, who do not have the muscle to out-invest dominant operators and improve service quality, is futile.

But improving market efficiency through regulation requires greater policy and regulatory efficiency. Besides the urgency of the market review being completed, the regulator needs to be permitted to assign the high-demand spectrum required for LTE/4G rollout urgently. Operators are currently using suboptimal, earlier-generation spectrum in order to rollout LTE services – inefficiencies contributing to the current high cost of services. This assignment should be done in such a way that it ensures any 3G coverage gaps are closed before operators can deploy any newly assigned spectrum. As consumer preferences shift from voice/SMS services to data, operators are no longer focusing primarily on price as their main point of attraction, but network quality and coverage instead. This renders the price challenges of small operators, who do not have the financial muscle to out-compete dominant operators when it comes to network investment, somewhat futile.

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