
Country: **Nigeria**

Sector: **Telecommunications**

Sub-Sector: **Internet Service Providers (ISPs)**

Year: **2018**

Asoko's Insights

High power costs limit growth in the market

High costs, in part a result of expensive power supply, put significant pressure on operating margins. In 2016, for example, [IHS Nigeria](#), which operates over half of the country's cell towers, reported that it required up to 20 million litres of diesel each month to power its base station network. With current diesel prices averaging \$0.58 per litre, IHS's monthly cost of powering its towers is estimated to exceed \$11 million. These expenses are passed on to ISPs and other consumer-facing network operators. Retail Service Provider (RSP) [Spectranet Nigeria](#) reports that around 40% of its earnings are spent on tower rental fees.

In response, some firms are looking for alternatives. In April, for example, [MTN Nigeria](#) partnered with Huawei to roll out its RuralStar 2.0 voice and data service to remote communities - the infrastructure is solar-powered. [Tizeti Network](#) has also been able to keep operational costs low and scale rapidly by investing in its own network of solar-powered towers.

Inconsistent data pricing hinders long-term planning

In 2014, the Nigerian Communications Commission (NCC) introduced a ₦3.11/megabyte data price floor to prevent larger operators from engaging in predatory pricing. The floor was suspended in October 2015, proposed again at ₦0.90/megabyte in November 2016, and finally withdrawn due to negative consumer feedback ahead of its December 2016 commencement date.

The inconsistency in the deployment of the policy has made it difficult for operators of all sizes to plan appropriately. For example, only one Internet Services license was issued by the NCC between October 2015 and April 2016, following the withdrawal of the data floor price. Operators that have struggled to achieve economies of scale have either been wound up or have had their assets acquired by larger operators.

As a result, the NCC is conducting a new study with KPMG to determine appropriate data pricing policies. The proposed price floor would only apply to vertically integrated companies in the wholesale and retail segments.

Service providers look to innovation around the end user to boost demand

Operators are working with hardware companies to develop affordable devices that are able to access 4G Long-Term Evolution (LTE) spectrums, the licenses for which can cost in excess of \$250 million (licenses are awarded through auctions) and have expensive renewal fees.

In October 2015, [MTN Nigeria](#) partnered with e-commerce retailer [Jumia](#) to sell 4G-enabled smartphones for less than \$100. More recently, [Teleology Holdings](#) announced plans to introduce several 4G-enabled smartphone models upon its takeover of [9Mobile](#), and [Smile Communications](#) made public a partnership with [MediaTek Global Services](#) to roll out VoLTE smartphones to its customers.

Operators are also taking advantage of increased fiber optic bandwidth to provide last mile internet access through Wi-Fi in densely populated urban areas (although this bandwidth remains limited). In November 2017, [Tizeti Network](#) partnered with [Main One Cable Company](#) and Facebook to expand the latter's 'Express Wi-Fi' hotspot programme. Meanwhile, [Swift Networks](#) has deployed over 500 hotspots in Lagos, offering free Wi-Fi internet access supported by ad revenue. The company plans to roll out up to 10,000 in Lagos before branching out to other regions of the country.

Sub-Sector Structure

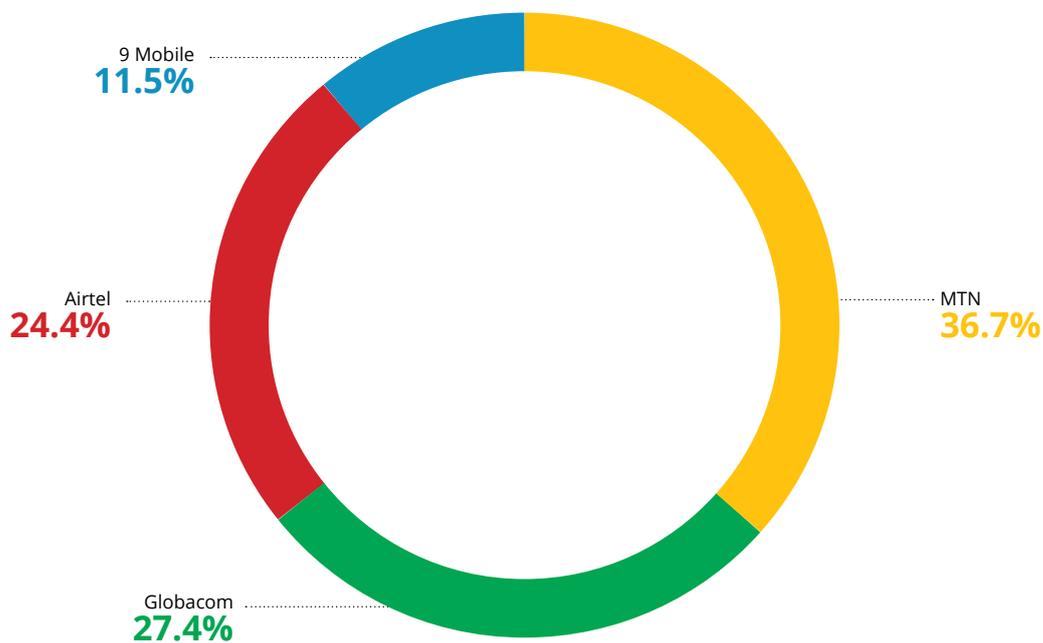
Nigeria's ISP sub-sector is broadly broken down into the mobile internet and fixed internet segments.

Mobile Internet Market

The mobile internet market consists of ISPs providing data through 2G, 3G and 4G LTE networks.

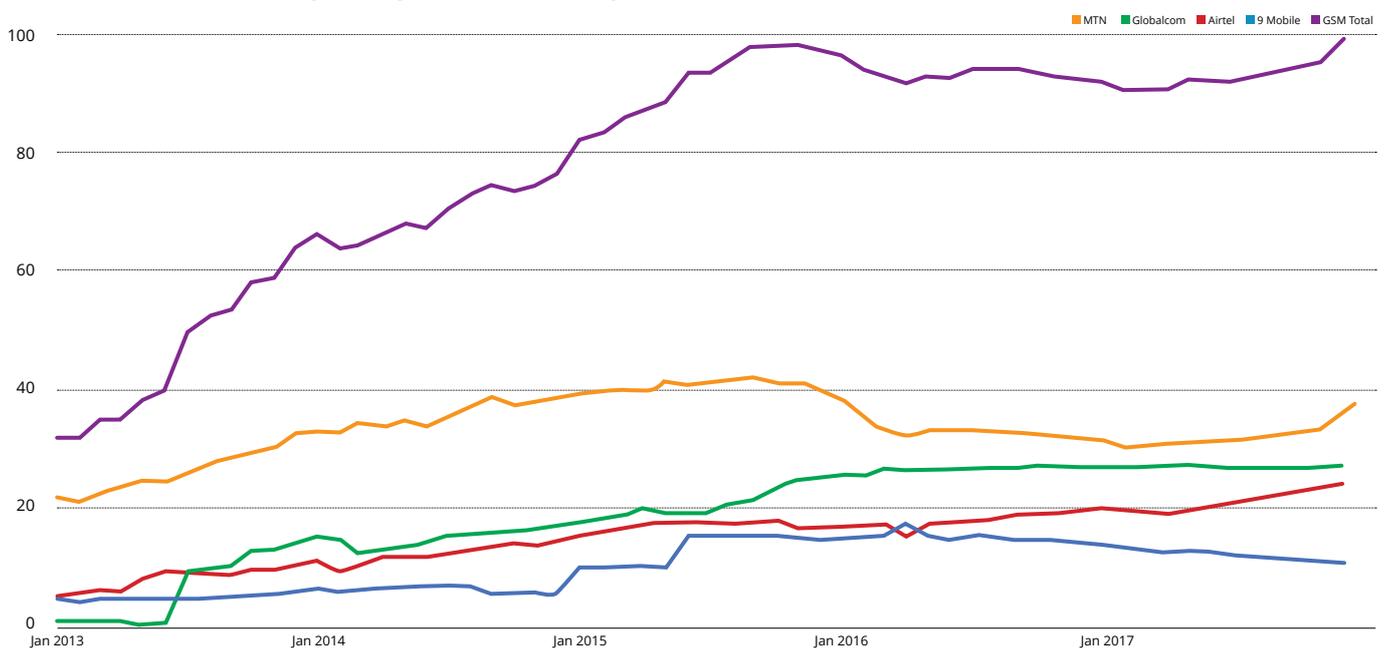
The mobile internet market is dominated by four Mobile Network Operators (MNOs) operating Global System for Mobile Communication (GSM) networks: **MTN Nigeria**, **Airtel Networks**, **Glo Mobile**, and **9Mobile**. Together, these MNOs account for over 99% of mobile internet subscriptions in the country. The remainder of the mobile internet market consists of a number of Long Term Evolution (LTE) focused operators such as **Spectranet Nigeria**, **Smile Communications Nigeria**, **Swift Networks**, and **NATCOM (nTel)**.

GSM Market Share by Mobile Network Operators (2017)



Source: Nigeria Communications Commission

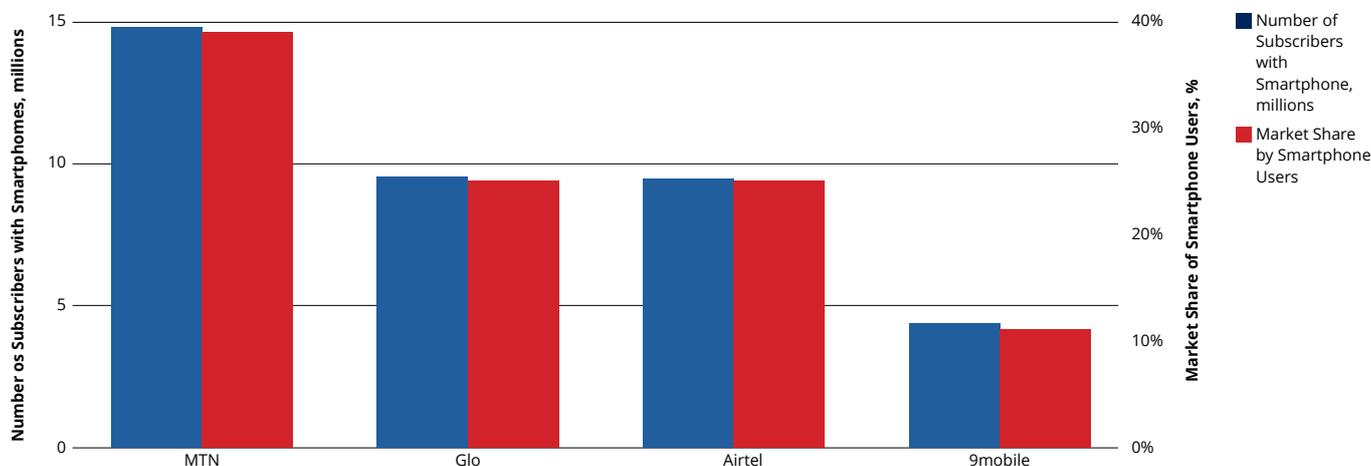
GSM Mobile internet Subscriptions by Mobile Network Operator Over Time (2013-17)



Source: Nigeria Communications Commission

Of those subscribing to the four major operators, just 38 million are smartphone users, with **MTN** accounting for more than one third of the total. **Airtel** and **Glo** have almost equal number of subscribers falling into this segment.

Operators by Subscriber Smartphone Usage and Market Share (Q4 2017)



Source: Annual Reports

Fixed Internet Market

The fixed internet market, which is much smaller, consists of RSPs providing wired connections directly to high-income homes and enterprise clients (e.g businesses, schools, and government institutions).

The top three players by subscribers are **MTN Nigeria**, **IPNX Nigeria**, and **Vodafone Business Africa**, although there are a number of smaller firms also operating in the space: **Broadbased Communications**, **Suburban Fiber Company**, **21st Century Technologies**, **Cobranet**, **VDT Communications**, **Tizeti Network**, and **Internet Solutions Nigeria**.

RSPs secure bandwidth from wholesale providers which have full or partial ownership of infrastructure such as towers or submarine cables. Operators such as **MTN** and **Glo** straddle both segments, supplying bandwidth to smaller players as well as directly to end users.

Market Consolidation

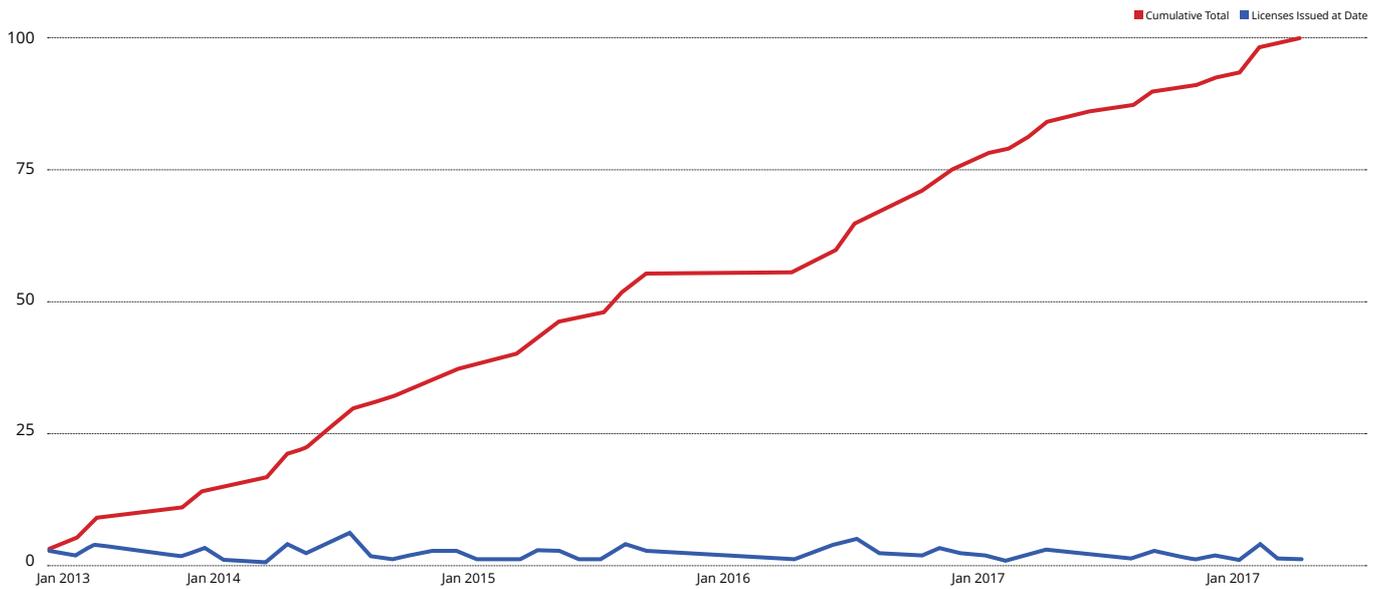
According to NCC data, the number of ISPs with Internet Services Licences decreased from 131 in June 2012 to 100 in April 2018, highlighting a trend towards consolidation. Asoko has identified five as holding Unified Access Service Licenses, and two with National Carrier Licenses.

The consolidation is in part a result of the winding up of Code Division Multiple Access (CDMA) and fixed-wireless network operators such as **Multi-Links** and **Starcomms**, who struggled with the high level of network churn. The last CDMA operator in the market, **Visafone Communications**, was acquired by **MTN Nigeria** in 2016.

The changing landscape is not limited to CDMA and fixed operators, however. In July 2017, a consortium of banks took over the operations of then-**Etisalat Nigeria** (now **9 Mobile**), due to a default on a \$1.2 billion loan. **Teleology Holdings** eventually won a \$550 million bid to acquire the network, reportedly besting interest from four other shortlisted companies: **Bharti Airtel**; **Smile Telecom Holdings**; **Globacom**; and **Helios Investment Partners**. **Smile Telecom Holdings** was announced as the reserve bidder with an offer reported by local media to be in the region of \$300 million.

More recent NCC comments suggest the number of active license holders is much lower than the reported numbers. Official comments from the NCC itself suggest only 10% of operators went on to renew their licenses over the six year period. While the regulator is unwilling to disclose the exact number of active license-holders at present, seven new providers are known to have entered the market since the start of the year: Bava Network and Technologies, Netzplan Resources, Sentient Networks, Standard Communications, Service Aggregation and Distribution, Passage Telecommunications Nigeria, and IP Express.

Number of Internet Service Provider Licenses Issued Over Time (2013-2018)



Source: Nigeria Communications Commission

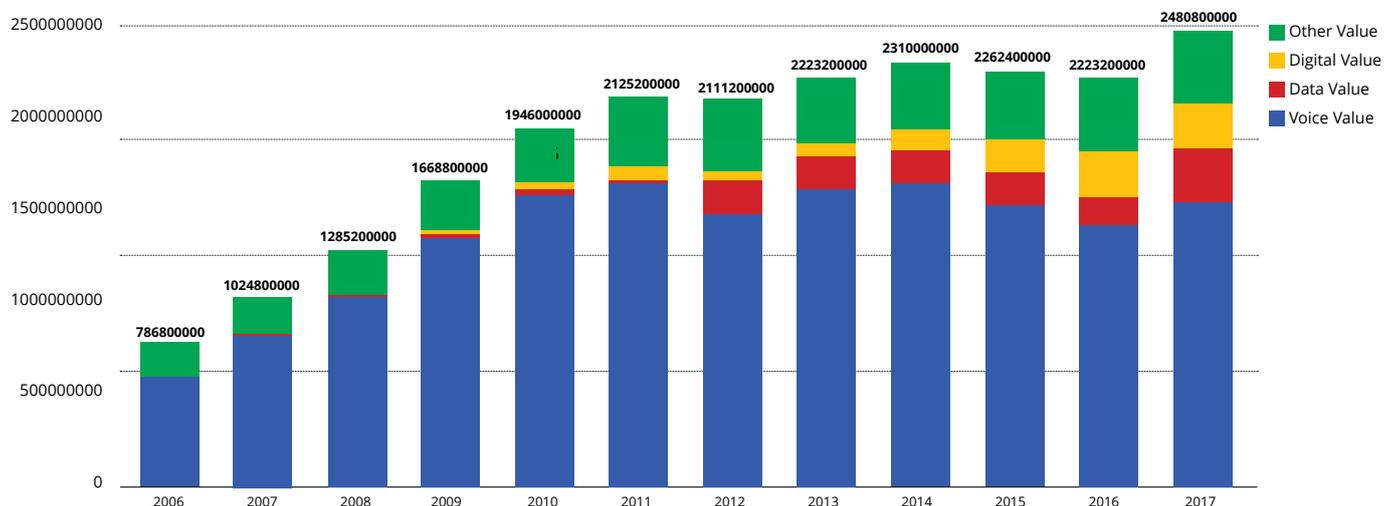
Sub-Sector Sizing

With just over 100 million active internet subscriptions, Nigeria is Africa's largest internet market. The vast majority of these connections are made via mobile device, the second highest rate of mobile internet access in the world after Kenya. Roughly 83% of Nigeria's internet traffic is generated via smartphones or tablets; computers only account for 17% according to web traffic tool, StatCounter.

The telecommunications sector contributed \$17.2 billion to GDP in 2016, according to the National Bureau of Statistics. The four largest operators brought in more than \$4 billion in revenue during 2017, with **Glo** opting not to disclose exact figures.

This represents a considerable source of income, even for large regional and global parent companies. For example, **MTN Nigeria**, the market leader in terms of subscribers, contributes around a quarter of annual revenues and total subscribers to MTN Group. At the service level, the proportion of **MTN Nigeria's** revenue accounted for by data and other digital services has grown steadily since 2010, with voice revenues declining as a proportion over the last decade. In 2017, voice revenues represented 62% of a total \$2.46 billion in revenue for the local entity, against 80% in 2007. Data and digital services, on the other hand, have grown to a combined 21% in 2017, having accounted for just 1% in 2007.

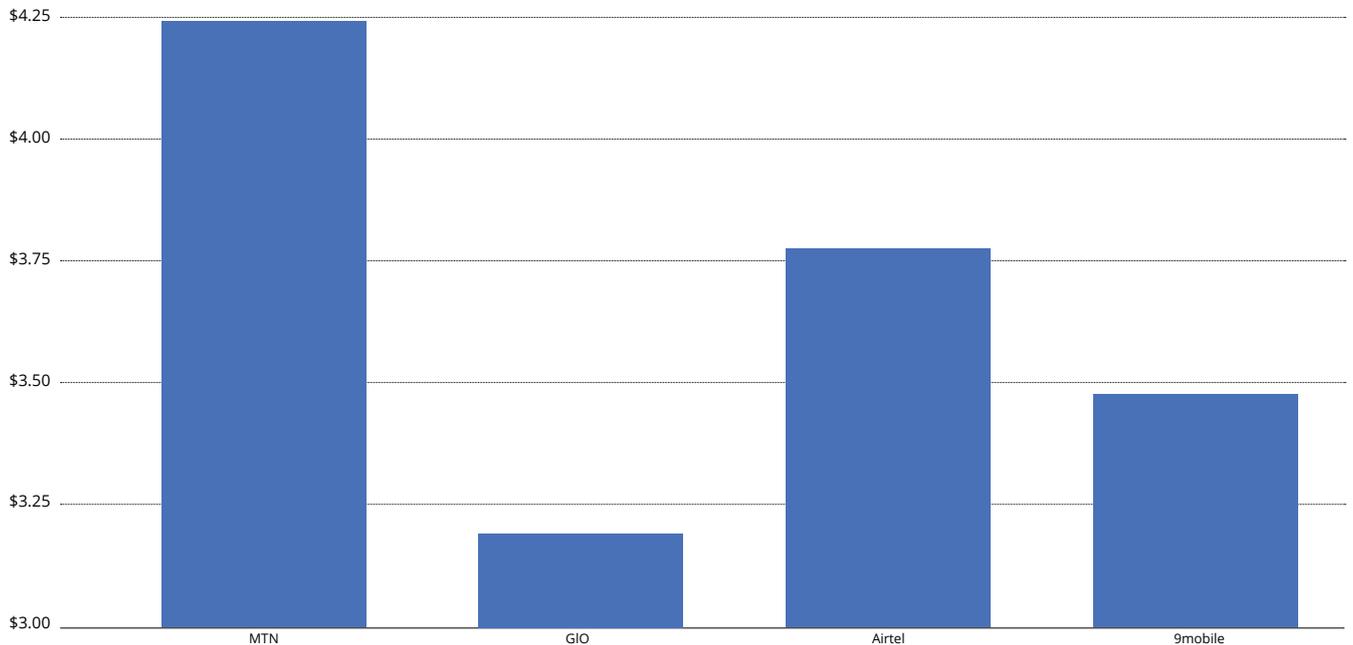
MTN Revenue Breakdown by Service Over Time (2006-17)



Source: Annual Reports

Looking at Average Revenue per User (ARPU), there are significant differences across operators, with **MTN** around \$0.50 above its nearest competitor, **Airtel**, and more than \$1.00 above that of **Glo**. It is worth noting that the figures include both data and voice revenues.

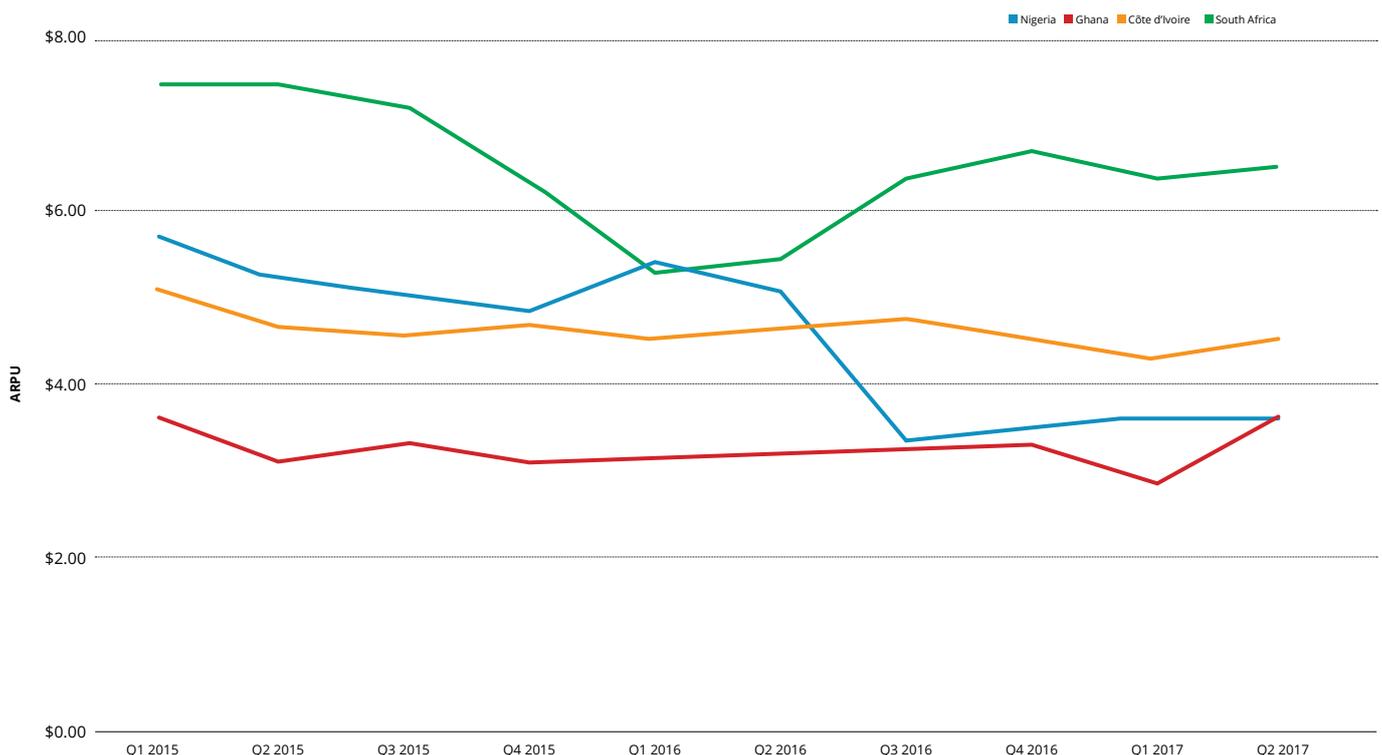
Retail ARPU by Operator, USD (Q4 2017)



Source: Annual Reports

MTN's average revenue per user (ARPU) in Nigeria has fluctuated significantly over time, having even exceeded that of South Africa - MTN's home country - in Q1 2016. The most recently available data shows that monthly ARPU has fallen from a high of \$5.40 to \$3.61 in Q2 2017 (Q4 data puts the number at \$4.25), putting it in league with other, smaller key markets over the period.

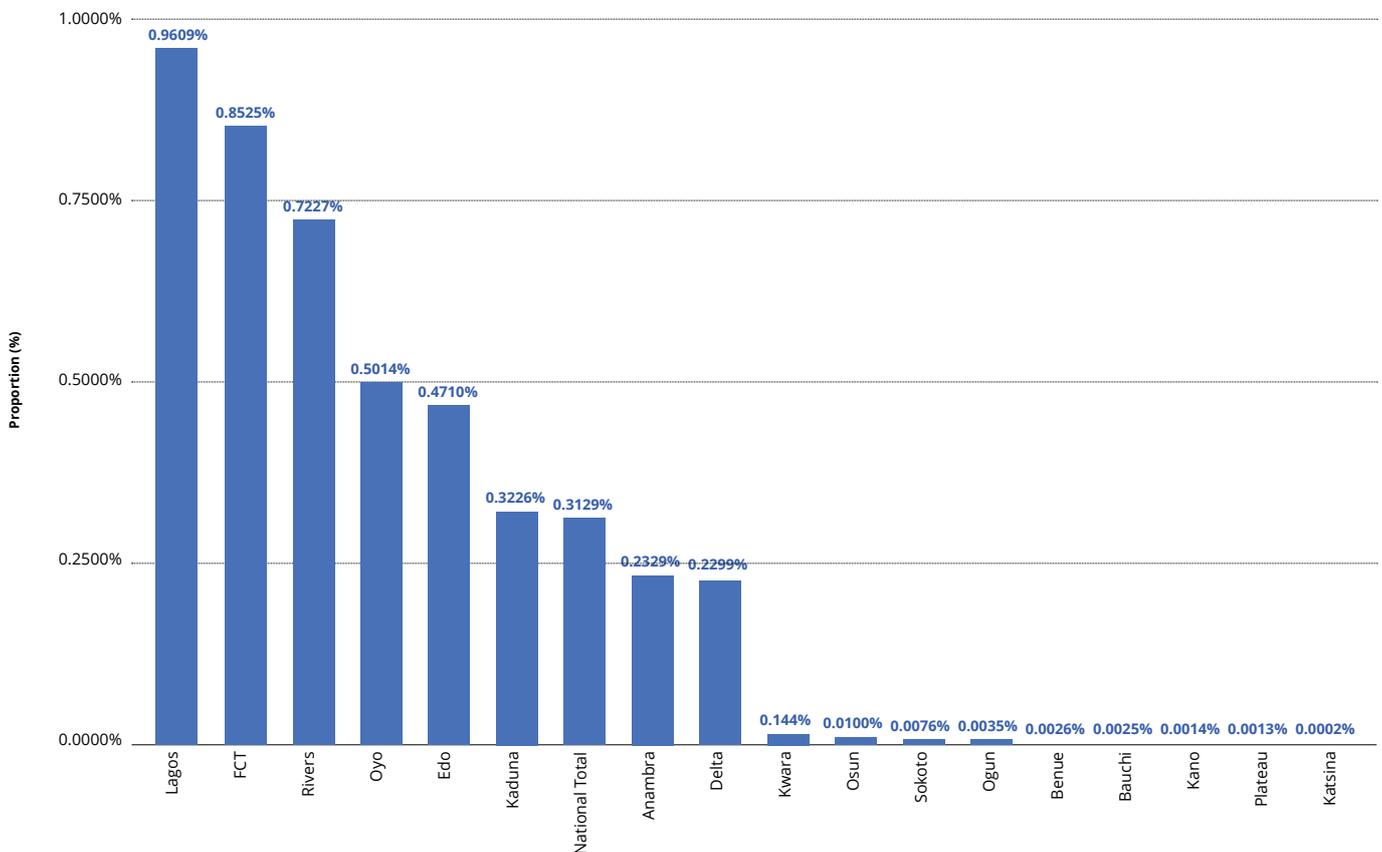
MTN's Average Revenue per User by Key Market Over Time, USD (2015-17)



Source: Annual Reports

The remainder of the market consists of ISPs with a focus on less than 1 million internet subscribers, which translate to roughly \$83.4 million in data revenues.

Non-GSM Internet Subscribers as Proportion of Total Internet Subscribers by State (2017)



Source: Nigeria Communications Commission

The market share of ISPs beyond the top four is negligible, representing just 0.3% of total subscriptions in the country. Only eighteen out of thirty-six Nigerian states have any subscribers outside of the top four operators; Lagos State has 130,000 users in this segment, representing less than 1% of the state total.

Performance

Internet Penetration

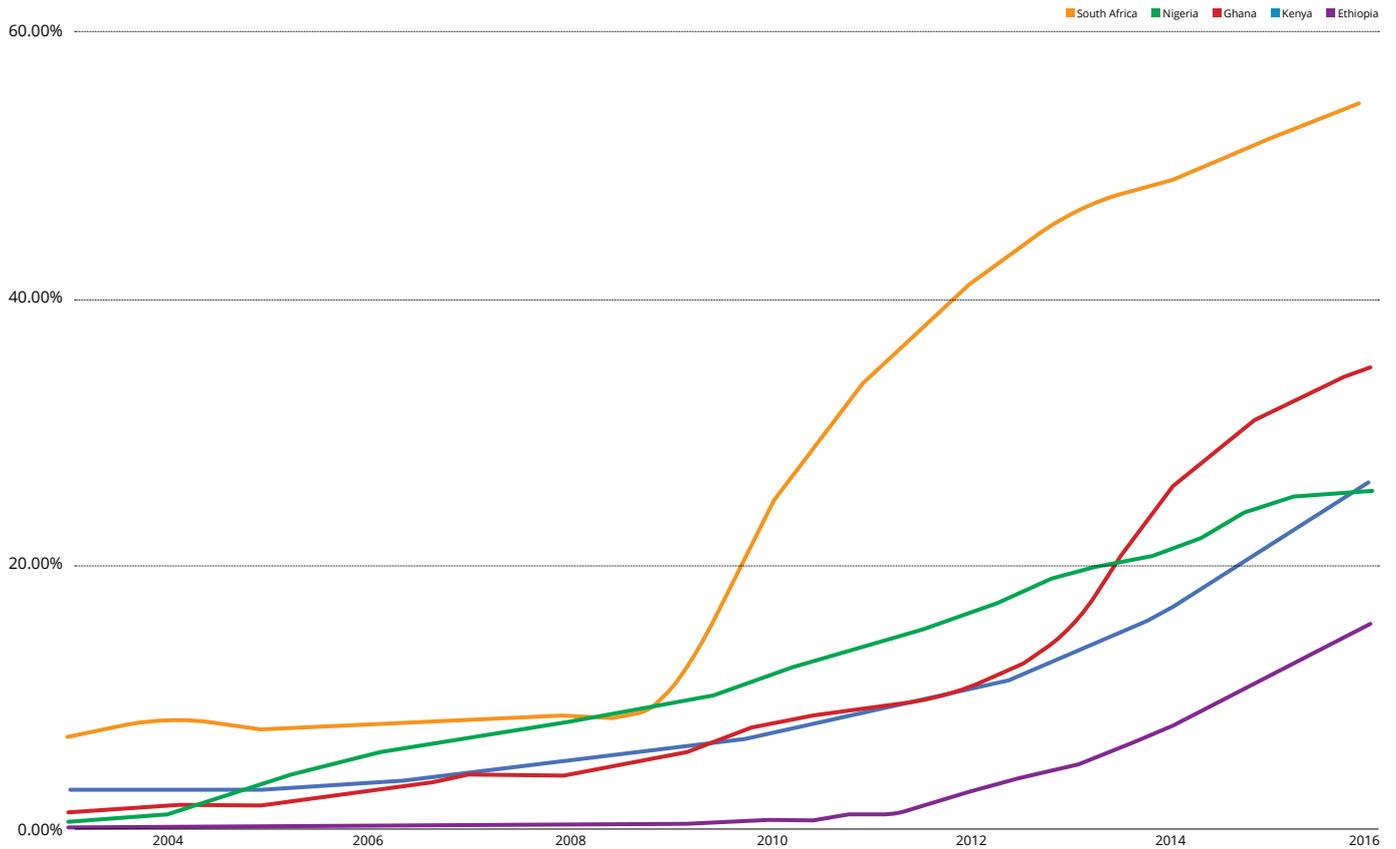
According to the NCC, overall mobile internet subscriptions rose from 32 million users at the start of 2013 to 97 million by the end of 2015. Subscriptions fell to 91.9 million by the end of 2016 due to a government clampdown on unregistered SIM cards. The market picked up in 2017 when active internet subscriptions rose by 8% to 98.8 million.

World Bank estimates put Nigeria's internet penetration at 49% for 2016, well above the 19% average for Africa as a whole. Nigeria's penetration is higher than comparable markets such as Ghana (28%) and Kenya (45%), but lower than that of South Africa (52%).

However, the penetration figure can be misleading: as is common across the continent, subscribers will often hold multiple SIM cards on different networks to take advantage of price differentials and variations in network quality. Subscriptions cannot, therefore, be conflated with subscribers.

Despite leading Africa in the total number of internet subscriptions, the International Telecommunications Union (ITU) estimates that in 2016 a smaller proportion of *individual* users in Nigeria (26%) had access to the internet than in similar markets such as South Africa (53%) and Ghana (36%).

Individual Internet Users as Proportion of Total Country Populations (2004-16)

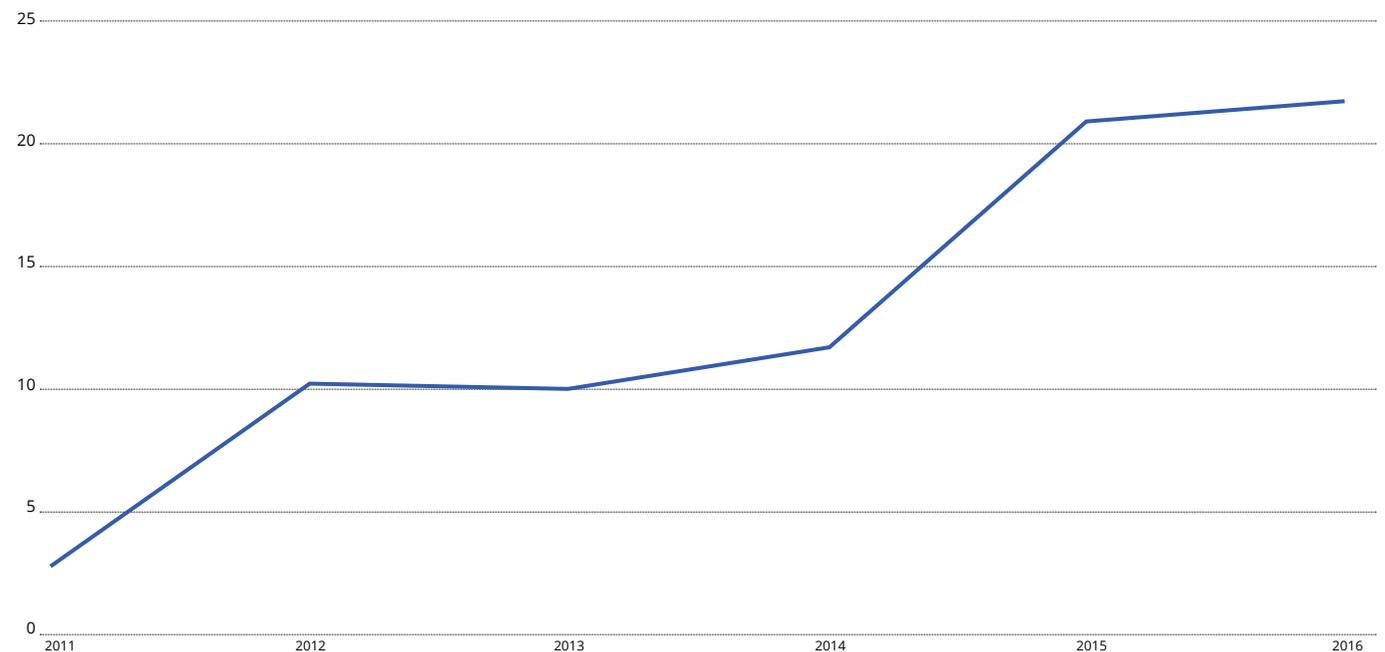


Source: International Telecommunications Union

Broadband Internet Penetration

Penetration of mobile broadband on 3G and 4G networks stood at about 2% at the start of 2010. However, following the deployment of submarine cables in Lagos starting in 2009, that rose to 10% in 2014. By 2016, it reached 21%, as operators upgraded their networks.

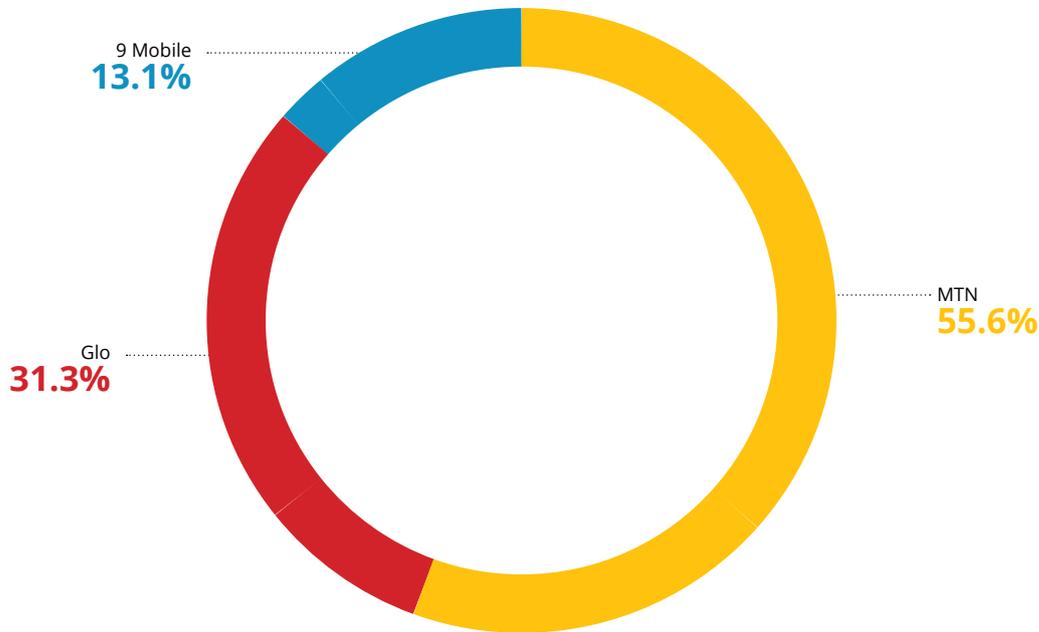
Nigeria Mobile Broadband Penetration Over Time (2011-16)



Source: International Telecommunications Union

Looking only at the largest operators, we see that **MTN** accounted for more than half of the 4G users in Q4 2017. Notably absent from the chart is **Airtel** which only launched 4G coverage in Ibadan in February 2018 (data is as yet unavailable).

Operators by Market Share of 4G Users (Q4 2017)

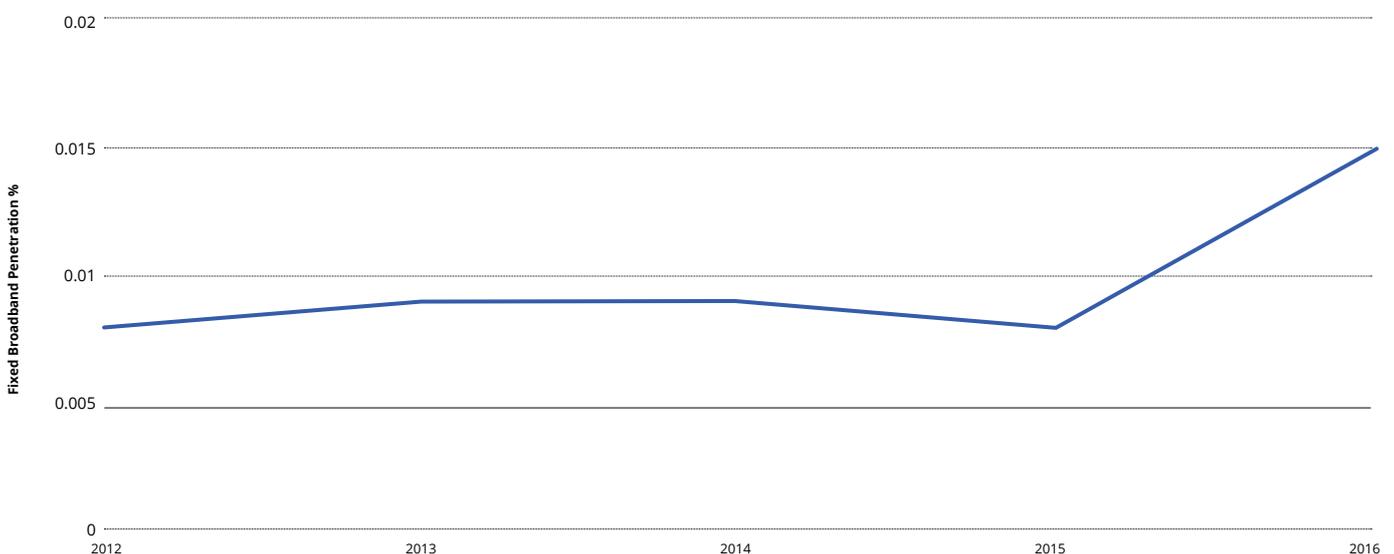


Source: Nigeria Communications Commission

Fixed broadband penetration lags mobile broadband, standing at just 0.015%. This is in large part the result of an insufficient fibre optic backbone network and low PC penetration (which the ITU estimates to be around 10.56%).

Although there is a large amount of internet bandwidth available through the fiber optic submarine cables at the shores of Lagos. It is estimated that less than 10% of the total capacity is in use due to insufficient last-mile fiber optic networks to provide fixed broadband internet directly to end-users across the country (i.e. FTTX). In April 2018, **Globacom** announced plans to land the first fibre optic submarine cable outside of Lagos. In partnership with Huawei, the Glo 2 cable will be landed in the South-South region of Nigeria, extending existing capacity to offshore oil platforms and other end-users.

Fixed Broadband Penetration Over Time (2012-16)



Source: International Telecommunication Union

In 2012 the government announced its National Broadband Plan (NBP) which aims to achieve a combined broadband penetration rate of 30% by the end of 2018. Asoko discussions with sector stakeholders suggest that this is unlikely to be achieved due to sluggish reform.

Policies aimed at boosting broadband penetration focus particularly on the fixed broadband infrastructure and access, which is targeted to exceed 5% penetration rate. In line with the NBP, two infrastructure companies (InfraCos) were licensed to roll out cabling in 2015: Infraco Nigeria, a consortium led by [Main One Cable Company](#), for Lagos, and I-Connect Infrastructure Services, a subsidiary of [IHS](#), for the North-Central region. After a series of delays, two more InfraCos were licensed in February 2018 - [Zinox Technologies Limited](#), for the South-East and [Brinks Integrated Solutions Limited](#), for the North-East. In March, [Raeanna Nigeria](#), Samira, and [Backbone Connectivity Network](#) have been licensed as InfraCos for the South-South, South-West, and North-West regions respectively.

Learn more about the Nigeria Internet Service Providers and African corporate data with access to Asoko Insight's company data platform.

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