

Africa Market Outlook 2018

Moving from communications services to digital services



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Summary

In brief

This report identifies and analyzes major recent developments in the African telecoms market, sets out the trends that will shape the future of the sector on the continent, and provides strategic recommendations for key players, based on Ovum's extensive Africa market data and five-year forecasts to end-2022.

Ovum view

- **Africa remains a growth market.** The fragile economic situation across much of Africa over the past couple of years has affected telecoms markets and operator businesses on the continent. Unpredictable political and regulatory developments have also had an impact. But longer-term macro trends for population and economic growth indicate that Africa will continue to be a growth market for telecoms and related services.
- **Africa will have 1 billion mobile broadband subscriptions by 2022.** Although Africa's broadband development still lags behind the rest of the world, providing data connectivity – primarily through mobile broadband – is an increasingly substantial part of most operators' businesses on the continent, and is set for significant further growth. Ovum forecasts that there will be more than 1 billion mobile broadband subscriptions in Africa by the end of 2022, and non-SMS mobile data revenue on the continent will grow at rate of 25.1% over the 2016–22 period.
- **The digital service sector in Africa is nascent but growing.** African operators are also looking to implement digital strategies, including the deployment of new, digital services that build on the growth in data connectivity. Mobile financial services (MFS) have proved to be the most successful category of digital service on the continent so far, but there have also been developments in e-commerce, digital content, and the Internet of Things (IoT).

Recommendations

- **The industry should address Africa's broadband deficit.** Regulators and other authorities should be looking to improve the level of broadband development on the continent through their strategies for licensing, spectrum allocation, and universal service funds. For their part, operators should focus on data pricing and on innovation in business models to improve broadband use on a commercial basis.
- **Data and digital are the main growth prospects for operators in Africa and should be central to their strategies.** MFS have been the most successful digital services in Africa, and operators and their partners should be looking to bring these services to new users and also to expand the range of features and functions that these services offer. Operators should also be developing other promising digital service categories, notably IoT services for utilities, agriculture, industrial sectors such as mining, and the public sector. Operator digital strategies should also include the application of technology to improve the efficiency and coherence of their own organizations.

Financial outlook

Recent results

The recent financial results of African operators reflect factors such as the economic fragility on much of the continent, the depreciation of local currencies, and some local circumstances such as the impact of new customer registration requirements. However, set against these adverse factors are positive trends such as continued growth in enterprise, data, and digital service revenues.

MTN is the largest operating group in Africa and a bellwether for the telecoms industry on the continent. But currency volatility, including the depreciation of currencies in a number of MTN's operating markets against the South African rand, in which MTN reports its results, complicates assessment of MTN's recent performance. For 1H17, MTN reported revenue of ZAR64.39bn (\$4.74bn), a decline of 18.6% on the same period a year earlier. However, MTN said that revenue was up by 6.7%, and service revenue was up by 7.5%, on a normalized basis that adjusted for currency fluctuations and other exceptional elements such as the

substantial fine imposed on MTN by the Nigerian regulator in 2015 (in Figure 1, MTN revenue is based on reported rather than normalized figures, converted into US dollars). Service revenue at MTN's operation in South Africa increased by 5.2% year on year in 1H17, while MTN Nigeria saw service revenue rise by 10.8% on a constant-currency basis.

The main drivers of growth at MTN are data and digital services, with Group data revenue up by 30% year on year in 1H17, while digital revenue increased by 25% over the same period, on a normalized basis. Voice and SMS revenue declined.

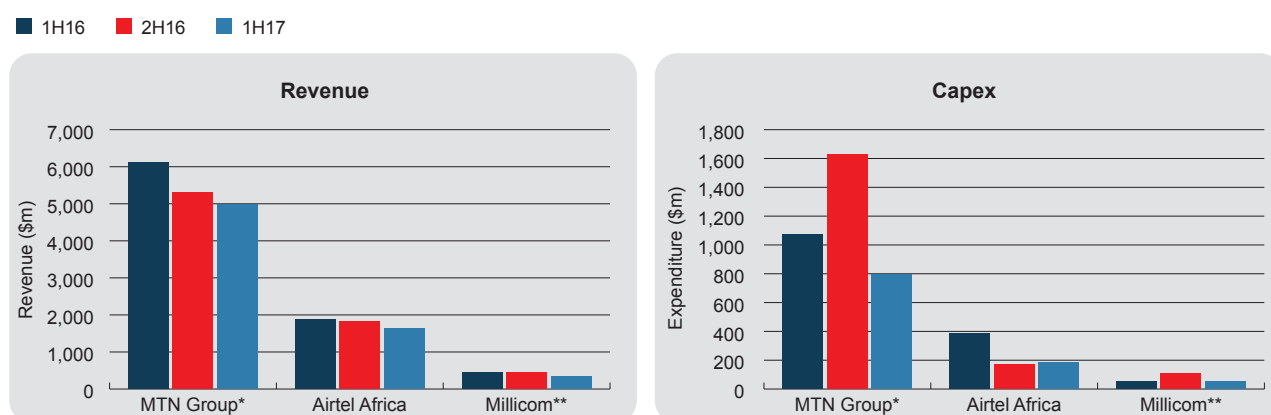
At Vodacom Group, revenue for the year to March 2017 was up by a modest 1.5% year on year to ZAR81.3bn, while service revenue increased 2.3% to ZAR68.3bn. Although Vodacom's South African business performed well, its international operations were affected by new customer registration requirements as well as by the depreciation of local currencies against the rand. However, on a normalized, constant-currency basis, Vodacom said that Group total revenue increased by 3.4% over the year to March 2017, while Group service revenue was up by 4.4%. Data revenue grew by 16.4% and enterprise revenue by 12.2%.

Bharti Airtel, which has operations in 15 African countries, said in its results for the quarter to end-June that on a constant-currency basis, which corrects for foreign-exchange changes, underlying Africa revenue for the quarter was up by 1.5% year on year (though on the basis of reported results, revenue for Airtel Africa for 1H17 declined by 14% year on year, as shown in Figure 1.) Significantly, Airtel Africa has become profitable, reporting positive net income in 1Q17 for the first time and continuing in 2Q17. Airtel said that the EBITDA margin for Airtel Africa in 2Q17 was 28%, up from 19.9% in 2Q16. Data revenue accounted for 18.7% of Airtel Africa's revenue in 2Q17, up slightly from 16.9% in the same period a year earlier.

Orange reported revenues of €2.49bn (\$2.94bn) in Africa and the Middle East for 1H17, which represented an increase of 1.7% year on year on a comparable basis, said Orange, but a decline of 1% on a historical basis. Orange said that its enterprise revenue in Africa and the Middle East was up by 6% year on year in 2Q17 on a comparable basis, while data revenue was up 33% and Orange Money revenue increased by 65%.

Millicom reported a year-on-year decline in revenue of 6.3% for its African operations in 2Q17, which the operator attributed to difficult market conditions on the continent generally as well as specific developments such as the introduction of a new excise duty in Chad that has hit consumer spending.

Figure 1: Revenue and capex comparison for selected major African operators, 1H16–1H17



* MTN figures converted from ZAR to USD at 10 September 2017 exchange rate. MTN Group results include Middle East operations. ** Africa operations.

Source: Ovum, company reports

M&A update

Notable recent M&A deals in Africa include Liquid Networks' ZAR6.55bn acquisition of Neotel, South Africa's second national operator, in a deal that was completed in February. Liquid also acquired the Tanzanian ISP Raha at the start of 2017.

In May, the UK's Vodafone transferred a 35% stake in Kenya's Safaricom to South Africa-based Vodacom, a subsidiary of Vodafone, in a transaction valued at ZAR35bn. Vodacom's CEO Shameel Joosub said that the transfer would allow Vodacom and Safaricom to work together to, for example, expand the M-Pesa mobile money business. After the transaction, Vodafone owned about 70% of Vodacom, and retained a 5% stake in Safaricom. Separately, media reports in September said Vodacom was in talks to buy a stake in South Africa Wi-Fi operator Vast Networks.

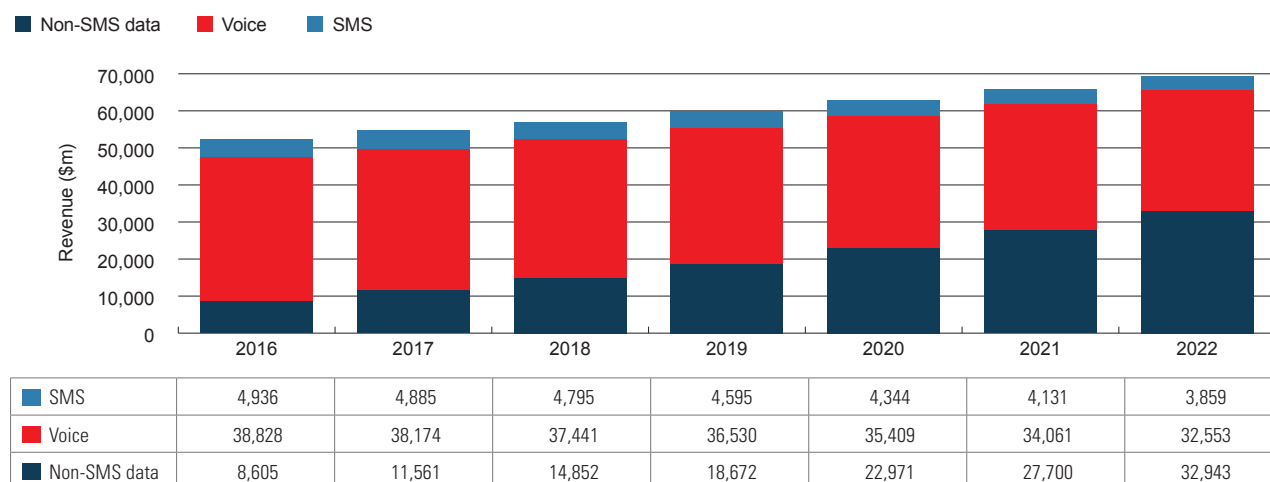
Millicom has been paring its African portfolio lately. In 2016, Millicom sold its operation in DRC to Orange, and in March of this year it agreed to merge its unit in Ghana with Airtel's local operation. In July, Millicom said it had agreed to sell its unit in Senegal to a consortium that includes NJJ – a company run by Xavier Niel, the founder of the French operator, Free – as well as Axian and Teyliom, both of which are conglomerates with established businesses in Africa. Millicom said it was scrapping an earlier agreement to sell its Senegal unit to a local company, Wari Group.

UAE-based Etisalat quit the Nigerian market in mid-2017 after its local affiliate was unable to keep up with dollar-denominated bank loans following the sharp depreciation of the Nigerian currency, the naira. Etisalat Nigeria was taken over by its creditors and rebranded as 9mobile.

Revenue forecast

Mobile revenue in Africa is significantly larger than fixed revenue, as mobile connectivity is increasingly widespread on the continent but fixed access is sparse. Ovum forecasts that total mobile revenue in Africa will increase at a CAGR of 4.8% between 2016 and 2022, to reach \$69.36bn in 2022 (Figure 2). The composition of mobile revenue in Africa will change significantly too, with non-SMS data revenue set to grow at a CAGR of 25.1% over the 2016–22 period, whereas SMS revenue will decline by 4% CAGR over the same period, and mobile voice revenue will decline by 2.9% CAGR. Non-SMS data accounted for 16.4% of mobile revenue in Africa in 2016, but it is expected to account for 47.5% in 2022.

Figure 2: Africa mobile revenue forecast, 2016–22



Source: Ovum

Although the African telecoms market remains mobile-centric, the continent is seeing an increase in the rollout of fixed broadband networks and services. As a result, fixed broadband revenue in Africa will increase from \$2.92bn in 2016, to \$5.06bn in 2022, a CAGR of about 10%, according to Ovum's forecasts. Fixed voice revenue in Africa is in decline, however, and is forecast to fall from \$1.76bn in 2016, to \$1.02bn in 2022.

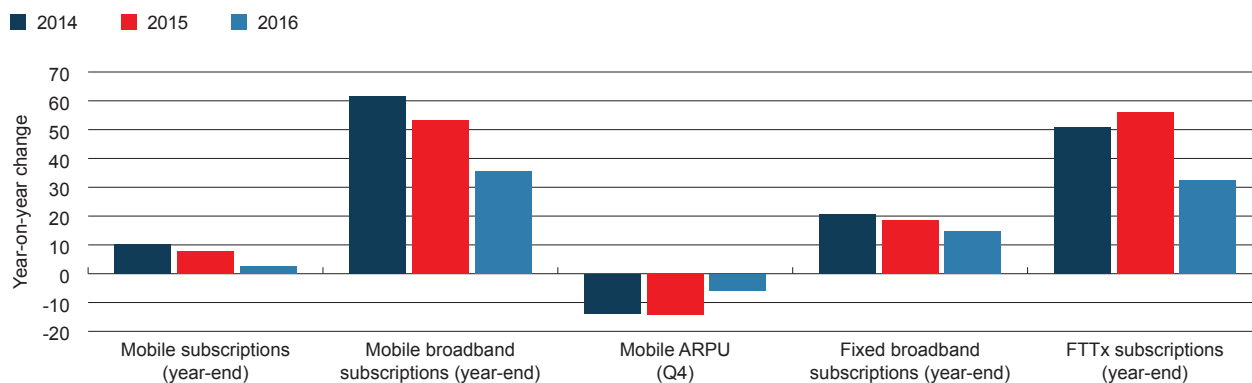
Fixed and mobile market assessment

Recent results

At the end of June 2017, there were 995.85 million mobile subscriptions in Africa, just short of the 1 billion mark. The rate of growth in subscriptions has slowed in recent years as mobile penetration on the continent has increased, and the number of mobile subscriptions in Africa increased by just 2.7% year on year in 2016, compared to growth of 7.7% in 2015 and 10.2% in 2014 (Figure 3). Ovum expects the rate of growth in mobile subscriptions in Africa to recover from the very low level recorded in 2016, and Ovum forecasts that there will be 1.05 billion mobile subscriptions in Africa at the end of 2017 and 1.39 billion at end-2022. Mobile subscription penetration in Africa was 79.4% at end-2016, compared to a global figure of 97.9%.

The number of mobile broadband subscriptions in Africa (i.e. those based on 3G and more advanced technologies) has increased rapidly in recent years, though at a slightly lower rate in 2016 compared to the two previous years. A similar situation holds true for fixed broadband subscriptions. In 2016, the number of mobile broadband subscriptions in Africa increased by 35.7% year on year, and the number of fixed broadband subscriptions increased by 14.6%. However, mobile ARPU in Africa is on a downward trend, having declined by almost 6% during 2016 to \$4.35/month in 4Q16.

Figure 3: Africa fixed and mobile market overview, 2014–16 (YoY % change)



Source: Ovum

Ethio Telecom of Ethiopia is now the largest mobile operator in Africa in terms of subscriptions, with 57.34 million mobile subscriptions at end-2Q17 (Table 1). Ethiopia is Africa's second most populous country after Nigeria, with a population of 103 million people. Ethiopia is also one of the very few African countries that has not liberalized its telecoms market and introduced competition, so Ethio Telecom has a monopoly. Previously, MTN Nigeria was Africa's largest mobile operator in terms of subscriptions, but it is now ranked second after its subscription count was cut as a result of new customer registration requirements in Nigeria and a customer database cleanup.

Table 1: Top ten African operators by mobile subscriptions, 2017

Operator	Country	Mobile subscriptions, end-2Q17 (millions)	Share of country's mobile subscriptions, end-2Q17 (%)	Mobile broadband subscriptions, end-2Q17 (millions)
Ethio Telecom	Ethiopia	57.34	100.00	8.76
MTN	Nigeria	53.09	36.96	16.61
Vodacom	South Africa	42.48	45.28	22.57
Vodafone	Egypt	42.09	42.13	18.25
Globacom	Nigeria	37.41	26.04	16.91
Airtel	Nigeria	35.00	24.36	14.67
Orange	Egypt	33.81	33.85	10.48
MTN	South Africa	31.22	33.27	22.09
Safaricom	Kenya	28.88	76.32	7.72
Etisalat	Egypt	24.00	24.02	6.87

Note: Mobile broadband subscriptions are those using W-CDMA or more advanced technologies

Source: Ovum

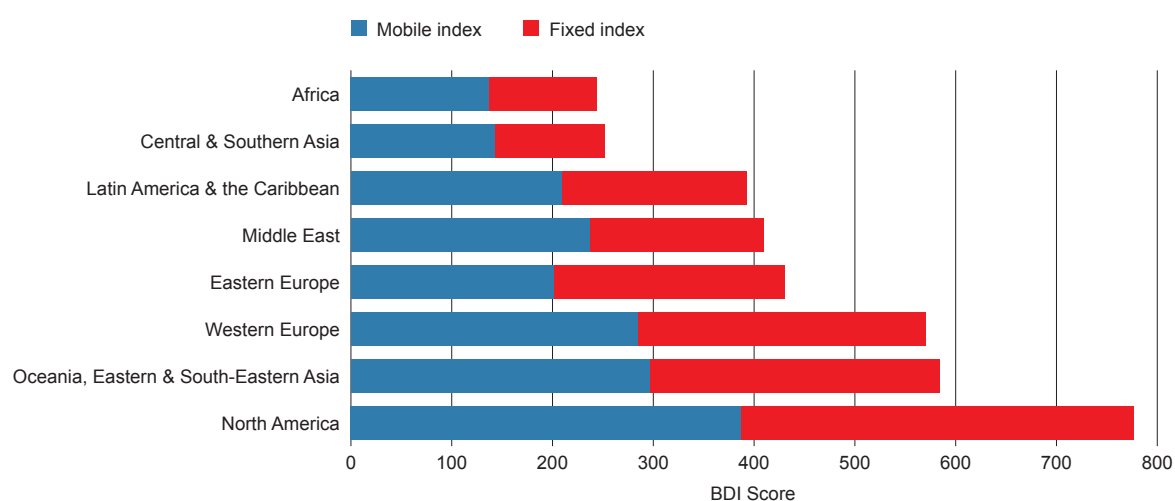
Broadband development

Africa is the lowest-ranked region in the world in terms of its overall (combined fixed and mobile) broadband development with a score of 244 out of 1,000, according to the most recent edition of Ovum's Broadband Development Index (BDI – see Figure 4).

The BDI measures the adoption of high-speed broadband services around the world by awarding each country or region a score out of 500 for its mobile broadband development and a score out of 500 for its fixed broadband development, to give a combined BDI score out of 1,000. The scores are based on Ovum's country-level data about broadband network deployment and take-up.

Mauritius is the highest-ranked African country in the BDI, with a score of 306 out of 1,000 at end-2016. The next-highest-ranked African countries are South Africa, Morocco, Zimbabwe, and Algeria.

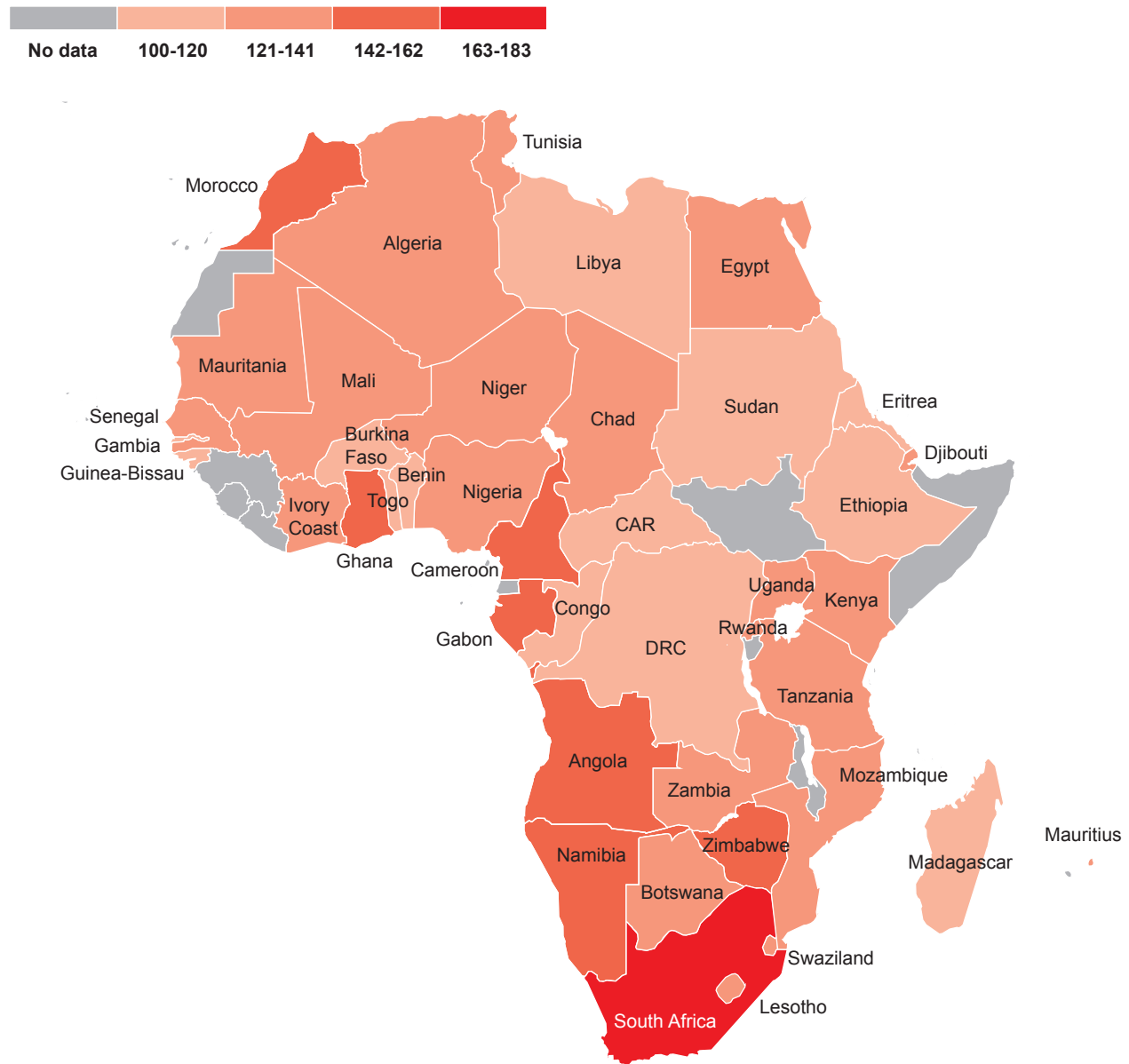
Figure 4: Ovum Broadband Development Index scores by region, end-2016



Source: Ovum

Although mobile broadband is more advanced in Africa than fixed broadband, the continent's mobile BDI score at end-2016 of 137 out of 500 is the lowest among world regions. (See Figure 5 for Africa mobile BDI map, in which darker colors indicate higher scores). South Africa has the most developed mobile broadband market on the continent, with a mobile BDI score of 181 out of 500 at end-2016.

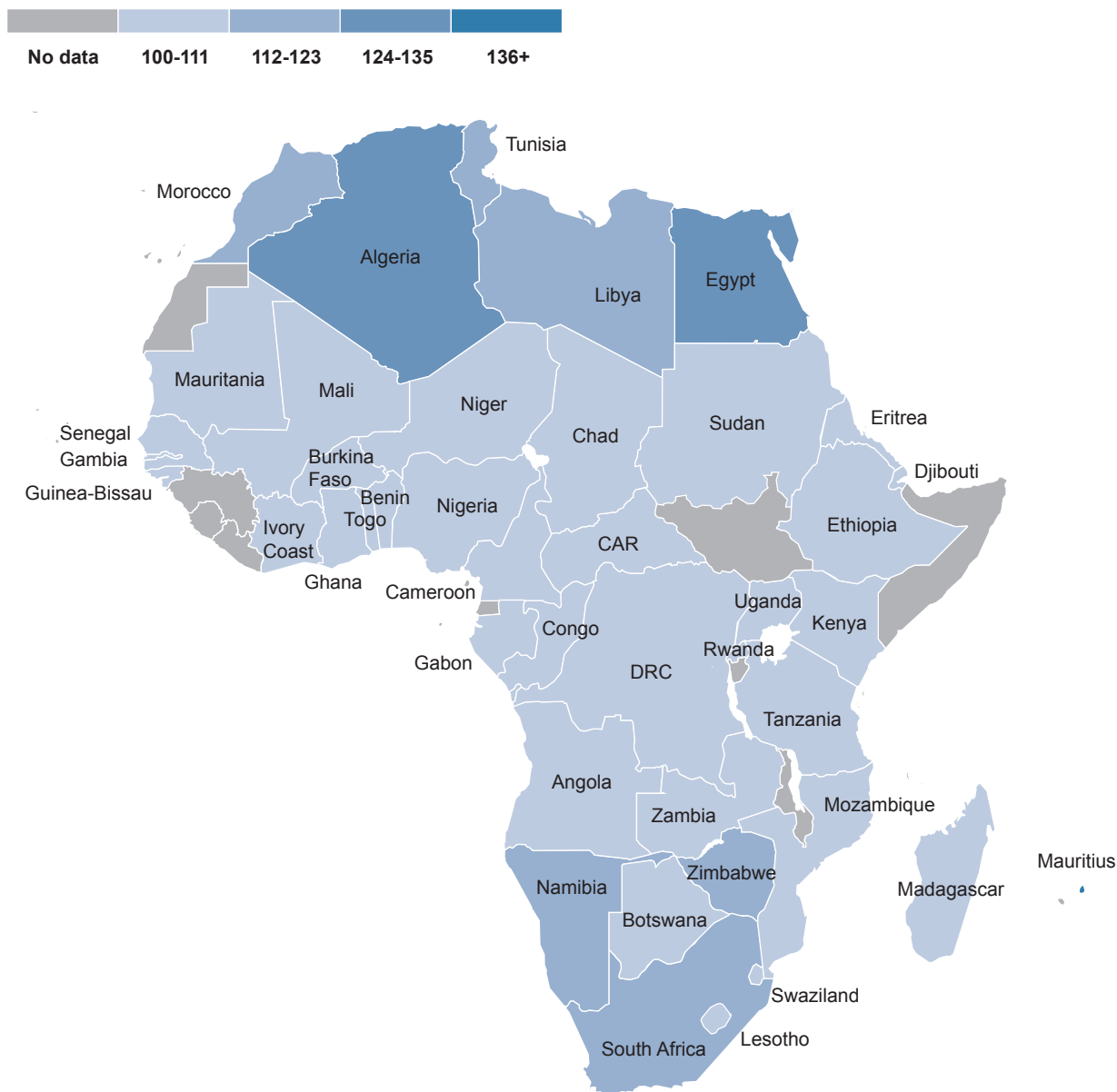
Figure 5: Africa mobile Broadband Development Index scores by country, end-2016



Source: Ovum

The development of fixed broadband is particularly poor in Africa, and at end-2016 the continent's fixed BDI score was just 107 out of 500, the lowest among world regions. Countries in North Africa and southern Africa generally have the highest fixed BDI scores on the continent (Figure 6).

Figure 6: Africa fixed Broadband Development Index scores by country, end-2016



Source: Ovum

The reasons for the relatively low level of broadband development in Africa are complex and varied. To simplify: they are in part a function of the state of economic and infrastructural development on the continent, but additionally, there are disparities in broadband development within Africa between rural and urban areas, the poor and the wealthy, and coastal and landlocked countries.

Although new submarine cables have hugely improved Africa's connectivity to the rest of the world in recent years, countries with direct access to those cables have benefited most, while data prices have tended to remain higher in landlocked countries without good access to the submarine cables. Broadband development also tends to be more advanced in urban areas, while many rural areas still lack basic network coverage. Many people in Africa live on very low incomes, which limits their ability to use relatively costly data services. Factors such as illiteracy and a lack of relevant services can also hold back the adoption of broadband.

However, there are also clear signs of progress in Africa's broadband development. In addition to the new submarine cables, terrestrial cabling on the continent is being extended. Mobile and wireless broadband networks have become much more widely available and data-capable devices such as smartphones are increasingly affordable. According to the UN Broadband Commission's annual report for 2017, 29 African countries had Internet Exchange Points (IXPs, which help to reduce latency and transit costs) by mid-2017, up from just 15 in 2008. Of the African countries that now have an IXP, 11 set up their IXPs in the year to mid-2017.

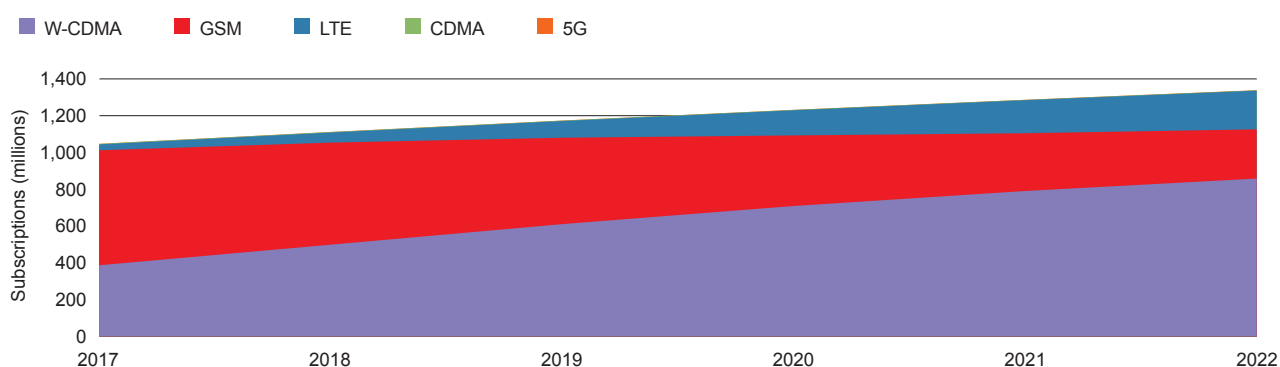
Broadband outlook

The adoption of mobile broadband will grow strongly in Africa over the coming few years, driven by the continued rollout of mobile broadband networks and the increasing affordability of smartphones. Ovum forecasts that the number of mobile broadband subscriptions on the continent (i.e. those based on W-CDMA and more advanced technologies) will more than double over the next five years, rising from 418.59 million at end-2017, to 1.07 billion at the end of 2022 (Figure 7).

Mobile broadband subscriptions will account for 40% of the 1.05 billion mobile subscriptions in Africa at end-2017 and 79.9% of the 1.34 billion mobile subscriptions on the continent at end-2022. W-CDMA will continue to be Africa's biggest mobile broadband technology for the five-year forecast period, with 858.09 million W-CDMA subscriptions forecasted for end-2022. The next biggest mobile broadband technology is LTE, which is forecasted to have 210.43 million subscriptions at end-2022.

Ovum expects Africa's first 5G services to launch in 2021, but initial take-up will be modest, with fewer than 1 million 5G subscriptions on the continent at end-2022. Ovum expects that four African countries – Kenya, Mauritius, Namibia, and South Africa – will have launched 5G by the end of 2022.

Figure 7: Africa mobile subscriptions forecast by technology, 2017–22 (millions)

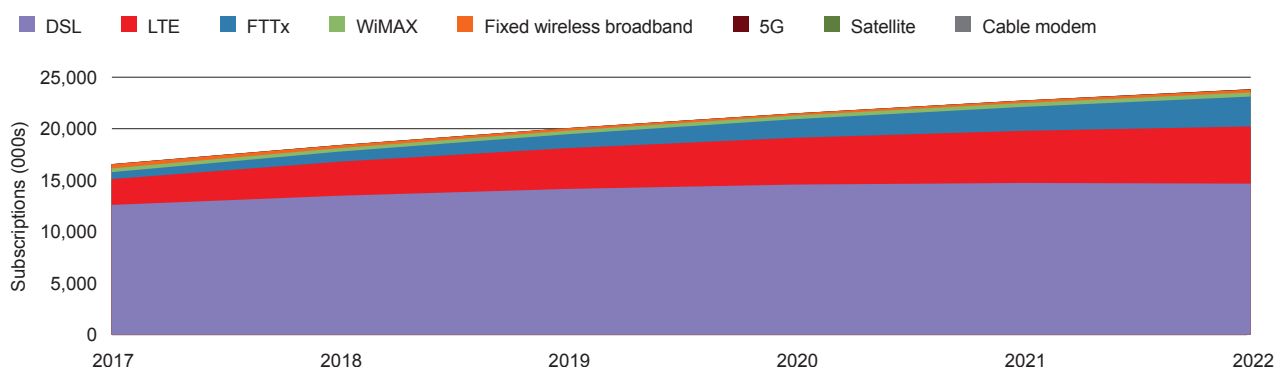


Source: Ovum

The fixed broadband market in Africa is far smaller than mobile broadband in terms of subscription numbers, but it is growing. There will be 16.57 million fixed broadband subscriptions in Africa at the end of

2017, and this number will rise to 23.83 million by the end of 2022, according to Ovum's forecasts (Figure 8). DSL will remain the largest fixed broadband technology on the continent, with 12.6 million DSL subscriptions at end-2017, rising to 14.66 million at end-2022. Fixed LTE services will represent the second-biggest fixed broadband technology in Africa, with 2.5 million subscriptions at end-2017 and 5.55 million at end-2022. FTTx will grow even more strongly, with 674,500 subscriptions at end-2017 but 2.91 million at end-2022.

Figure 8: Africa fixed broadband subscriptions forecast by technology, 2017–22 (000s)



Source: Ovum

Vendor contracts

Several of the recent vendor contracts in Africa are for incremental network improvements rather than major new deployments (Table 2). However, Safaricom has commissioned Huawei to deploy a new FTTH network, for home broadband services. There have also been a number of developments in IoT network deployment in Africa.

Both MTN and Vodacom are working with Huawei to deploy NarrowBand IoT (NB-IoT) networks in South Africa. In May, Vodacom said that it had launched a live NB-IoT site in Africa, in Johannesburg. In September, Ericsson and Qualcomm said that they had run a successful test with MTN South Africa of a Cat-M1 low-power, wide-area (LPWA) system for IoT. Also in South Africa, Sigfox is deploying its proprietary LPWA system for IoT nationwide, in partnership with Dark Fibre Africa's subsidiary, SqwidNet.

Country	Customer	Vendor	Deal date	Deal segment/summary
Kenya	Safaricom	Huawei	August 2017	FTTH, OSS
Rwanda	Government of Rwanda	Nokia	May 2017	Smart city technology
South Africa	Dark Fibre Africa	Sigfox	March 2017	LPWA network for IoT
Egypt	Vodafone	Ericsson	March 2017	NFV
Tanzania	Tigo	Ericsson	March 2017	Rural mobile network deployment
DRC	Orange	DigitalRoute	February 2017	BSS
Tunisia	Ooredoo	Polystar	February 2017	Customer analytics
Ivory Coast	Orange	Ekinops	February 2017	Transmission network

Source: Company reports, Ovum

Among other notable network deals, the Government of Rwanda has contracted Nokia to deploy smart city systems for the delivery of public-safety, waste-management, utility, and healthcare services.

Digital services

Operator digital strategies

As the rate of growth in customer numbers slows and revenues from voice and SMS services stagnate or decline, most major African operators are focusing on the prospects for continued growth in data connectivity, and also on the business potential of new, digital services such as digital content, mobile financial services, e-commerce, the IoT, and enterprise ICT services.

MTN

In 2012, MTN put data and digital services at the center of its plans with the launch of a new strategy under the slogan “Bold New Digital World.” As well as rolling out W-CDMA and more recently LTE mobile broadband networks in order to expand data connectivity, MTN has developed a range of digital services and ventures, including mobile financial services, digital content, e-commerce, and enterprise ICT services.

MTN Group CEO Rob Shuter said during the company’s 1H17 analyst presentation that the continued growth of data and digital services, primarily on the mobile platform, is one of the big trends that MTN expects to see across its markets over the coming few years. Data and digital are MTN’s “two big growth engines,” said Shuter. According to Shuter, voice services accounted for about 55% of MTN Group’s consumer revenues in 1H17, but by 2020 MTN expects data and digital revenues to account for more than half of its consumer revenues. MTN had 72 million active data customers at end-1H17 and 18 million active mobile money customers. The latter represents an increase of almost 20% in six months.

As with many other operators, a key part of MTN’s digital strategy is to transfer sales and customer service from physical to online and other digital platforms that are more efficient and less costly. MTN’s e-commerce businesses – primarily its joint ventures with Rocket Internet and other partners – continue to be loss making, but the scale of the losses is declining and, according to Shuter, MTN’s e-commerce portfolio gives it a strategic presence in one of the main digital service sectors.

Orange

Orange has also made growth in digital services central to its plans, and it has developed a range of digital services and specialisms, which are tailored to the different characteristics of the countries and regions in which Orange operates.

For example, the Orange Money mobile money service was developed primarily for Orange’s African markets and is central to Orange’s digital strategy for the continent. Orange Money is offered by 17 of Orange’s 21 operations in Africa and the Middle East, and there were 32 million Orange Money users at the end of June 2017. In 2Q17, revenue from Orange Money increased by 65% year on year. Orange’s overall data revenue in Africa and the Middle East increased by 33% year on year over the same period.

Orange also invests in the digital sector through a number of ventures including its Fab start-up acceleration program, which now operates in about 14 locations around the world, including three African countries – Ivory Coast, Cameroon, and Senegal. Additionally, in 2016 Orange paid €75m for a stake in the African online e-commerce business, Jumia.

Safaricom

Kenya's Safaricom is a leader in the development of mobile financial services. Its M-Pesa mobile money service, which was launched a little more than a decade ago, had 19 million active users at the end of March, and M-Pesa accounted for 27% of Safaricom's service revenue in the year to March.

Safaricom's main focus in digital services has been on M-Pesa, but now it also plans to launch an e-commerce service called Masoko in Kenya by the end of 2017, and then in other African markets in East Africa and beyond.

Safaricom's CEO Bob Collymore said in an interview with the *Financial Times*, published in September 2017, that the Masoko service would be a marketplace that combined e-commerce and payments to connect buyers and sellers, and would be modelled on China's Alibaba rather than on Amazon and other e-tailers that hold their own inventory. Collymore said Safaricom aims to make Masoko available in four or five African countries within two to three years.

Appendix

Methodology

This report is based on Ovum's data, forecasts, and analysis relating to the African markets, as well as on operator, regulator, and media reports.

Further reading

2018 Trends to Watch: Middle East and Africa, TE0015-000454 (August 2017)

Africa 5G Outlook, TE0015-000444 (June 2017)

North Africa Market Outlook, TE0009-001661 (June 2017)

Digital Profile: MTN Group, TE0015-000436 (May 2017)

Digital Profile: Millicom Group, TE0015-000437 (May 2017)

Digital Profile: Orange, TE0014-000450 (May 2017)

Broadband Development Index, PT0042-000001 (January 2017)

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