



The African FTTH Boom: Last Mile Fibre Dynamics, Economics and Outlook in African Markets

Africa is witnessing an FTTH boom, and we estimate that the total number of FTTH connections in Africa passed the 500k mark in the third quarter of 2016. Five markets account for 85% of Africa's FTTH/P homes passed: South Africa, Kenya, Nigeria, Morocco and Mauritius. But this boom is about more than the top 5; FTTH/P roll-outs have been initiated in at least 15 markets outside of the top 5 above – from Cameroon to Gabon and Congo-Brazzaville, at various levels of scale. Still, we continue to despair at Nigeria's inability to live up to its significant potential.

Africa is a predominantly mobile broadband market. But we find that the notion of an almost mobile-only African connectivity marketplace is largely fallacious. Urban professionals demand the same user experience at home that they are getting at work, or that they have seen in their travels. In South Africa, rich communities frustrated by existing broadband services took matters in their own hands and got providers to bid to offer them fibre services. Other drivers are the increased availability and consumption of bandwidth-hungry content, from video streaming services (Netflix, iRoko), to cloud-based enterprise applications, along with a realization that 3G/4G, ADSL (in its typical African form at least) just aren't cutting it for some use cases.

Strategically, we do not believe top tier operators can afford to lose too much ground on FTTH as their traditional mobile models are getting squeezed. They would be losing control on what will become the primary conduit for enterprise and home digital life – not for all, but for some of the market's most critical segments. In turn, we expect that many will seek to catch up – either through greenfield build-outs, or preferably through acquisitions of FTTH players.

Our assessment of a number of FTTH rollout projects puts capex per home passed in the \$600 to \$2500 range. Capex would typically be higher than the above range in the early phases of deployment; in addition, some markets require substantially more trenching and civil works, while in others governments charge excessively high rights of way fees. On the basis of our capex/home passed estimates, we extrapolate that African markets will need between \$2.3bn and \$4bn over the 2016-2020 period to hit our FTTH homes passed (and connections) projections. This means a potential capex of about \$600m to \$1bn per year over that period.

Africa's FTTH growth runway is substantial. As noted, FTTH only touches ~2% of Africa's fixed broadband addressable target market. Increasing penetration of this addressable demand by a mere five percentage points in sub-Saharan Africa alone would equate to adding half a million new FTTH connections over the next five years. Further, we expect Southern and East Africa (Kenya and South Africa, principally) to account for ~80% of Africa's FTTH/P connections. The regional gap will get worse: West Africa's FTTH lag will be substantial, absent urgent regulatory action (which we do not expect). In effect, African FTTH growth will be driven by a core group of 10-12 markets, with ultimate impact depending on how supply fundamentals evolve.

The African FTTH Boom: Last Mile Fibre Dynamics, Economics and Outlook in African Markets takes an extensive look at FTTH adoption patterns across the continent, including key infrastructure, market structure and regulatory drivers along with current and projected levels of homes passed and connected. It provides a mapping of which markets appear most attractive for an FTTH rollout; it offers an in-depth analysis of the addressable market for FTTH in Africa, from businesses in central business districts to gated communities and beyond. Finally, the report takes a close look at African FTTH economics, from cost of deployment to ARPU, profitability and potential returns, along with the implications of those dynamics on projected rollout and adoption.

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Sample key findings of **The African FTTH Boom: Last Mile Fibre Dynamics, Economics and Outlook in African Markets** include the following:

- **Africa is in the midst of an FTTH boom** – an increasingly loud FTTH revolution that is made even more notable by the unique nature of some of its characteristics. Between 2014 and 2016, the number of homes and premises passed by fibre has more than tripled. The cumulative number of African homes/premises passed by fibre crossed the 1m mark in 2016. We expect it to hit the 2m mark in 2017.
- **The total number of FTTH connections in Africa passed the 500k mark in 2016.** Recent growth has been strong: around 75% of Africa's FTTH connection growth since 2010 has occurred over the past two years. Last mile Fibre is upending Africa's retail broadband market dynamics – from bandwidth speeds to user experience, pricing models and market share upheavals, it's a whole new game.

The African FTTH Boom: Last Mile Fibre Dynamics, Economics and Outlook in African Markets is published in PDF format.