

Missing Links

There are no doubts that the African telecommunication sector has grown and made significant strides the last three years. The level of progress is not a fluke. However, one of the greatest problems facing affordable telecommunication access in many parts of Africa is monopoly of access, links and inter-connectivity between operators. In many countries, this monopoly is controlled by incumbents, legacies of state owned telecommunication companies failing to realise when their job is done and when relinquishing their hold on national structures is more nationally productive. Often the links in question have been paid for with tax payers' money before such companies are privatised or sold. This problem is significant across the African continent and has kept communication access in the continent very expensive.

In the recent past, specifically the years 2004 and 2005, there has been a rapid growth in both the number of telecommunication operators offering cellular communication access and the number of subscribers using mobile phones. This emerging market is growing out of demand driven by fixed to mobile substitution, the real first in any continent. Fixed to mobile substitution was born not only by sheer affordability of wireless communications. In many Africa countries, it is also born by unavailability of legacy fixed telephone lines and the beurocratic delays in waiting for a fixed line to be assigned to applicants. Therefore, when cellular networks, mostly GSM networks were deployed in the continent, citizens saw them as blessings. Overnight the waiting lists for fixed lines access shrank as most subscribers turned to mobile phones. In many countries therefore, mobile phone penetration have grown in leaps and bounds with Nigeria leading the explosion in new mobile phone subscriber uptake. There is however an existing problem in many African countries and communication policy makers have either turned a blind eye to let their recently weaned incumbents maintain monopoly or out of limited experience have failed to understand how to resolve the emerging problems of inter-connectivity and termination of calls.

Africa's telecommunication problem is mainly lack of bandwidth dictated by lack of funds. It is not there to be offered to everyone and at the affordable price desired. Although some countries are gradually replacing copper with fibre, the costs of doing so have apparently slowed down many of them except South Africa and Nigeria which seem to be exceptions. Africa One the initiative designed to ring the continent with optics fibre and link it to Europe was designed to ease inter-national transit calls, but the missing links from many of the countries are still visible as many of them continue to depend on legacy equipment particularly narrow band copper instead of replacing them with fibre. The new cable (EASSy) to be built on the East coast of the continent may ease this pressure but at the moment requires ownership structure to be defined and access to it to be fixed. To most countries the problem in providing bandwidth is cost. This problem translates to difficulties in routing international calls (internal to Africa) between African countries and to the rest of the world.

In Nigeria, it translates to inter-connectivity burden for the non-incumbent communication operators as inter-connectivity rates are seen by them to be astronomically high. On face value it looks easy and logical to pass on the cost to subscribers and to let the market dictate who survives. Unfortunately, left to fend for

itself without regulatory intervention, the price of communication access will be driven beyond the reach of the greater needy population. The market in Nigeria like most of the other African countries depends largely on the middle class and youths with little extra money to burn for air time. Therefore, shifting the burden of inter-connectivity to subscribers will not lead to subscriber growth. Indeed the smaller operators see this clearly as they point fingers at the incumbents for using inter-connectivity as a monopoly card to drive customers away from them. The Nigerian Communication Commission (NCC) has so far dragged its feet in terms of stepping in to decide on what is fair inter-connection fee. The market therefore remains stifled and burdened. So far the NCC is yet to rain in the major GSM operator who is insisting on unviable termination costs from smaller operators. Termination problems in Nigeria is however a dual problem. The required bandwidth is not there to satisfy demand and the supply of E1 links required by smaller operators is also being used as a monopoly chain to hold back competition. NCC has therefore one option, to break the chain and unshackle the market.

Inter-connectivity problems in Ghana appear to have eased compared to Nigeria as the Ghana Minister for telecommunication has himself stepped in to resolve the inter-connectivity dispute between the Ghana Telecom and mobile operator Areeba. He has done what is expected in the Nigerian case as he charged the National Communications Authority (NCA) of Ghana to keep an eye on them to give customers the best communication services at the lowest cost.

As in Nigeria, South Africa also has its own connectivity problems. The South African incumbent has so far retained monopoly of Sat-3 the undersea cable that provides most of South Africa's international bandwidth. A clarification from government pending an enquiry into whether the incumbent should be allowed to retain its monopoly on the undersea cable is yet to come. Therefore as long as this is the situation, the incumbent retains the monopoly to set what some critics call arbitrary fees to push up its profit margin. Some have estimated these fees (for other operators to buy bandwidth on Sat-3) to be up to seven times higher than normal. Such high fees drive up network access costs as is well known for voice calls from South Africa. Sat-3 was paid for with public money and the public is calling for it to be declared an essential service and for fees charged by the incumbent to be capped by the Independent Communications Authority of SA (ICASA). Essentially, an intervention similar to the Ghanaian case by the Communication Minister is desirable to ease the burden of telecommunication access in South Africa.

At the broader scale, inter-connectivity between countries is a much more severe and difficult mine field to wade through, because there is no single continental communication authority that unifies all the divergent views that is also charged with the powers to resolve disputes and to harmonise tariffs. To address this, the Economic Community of West African States (ECOWAS) raised two committees to address inter-connectivity of regional networks and tariff harmonisation. Inter-connectivity between nations is central to efficient roaming across national borders. ECOWAS has set a date of December 2006 for the introduction of a region-wide roaming facility in West Africa. Although the goal is for strengthening trans-border inter-connectivity with the hope of ensuring the free-flow of intra-community calls, the required improvement in telecommunications infrastructure will become the major hurdle. Most of the ECOWAS countries rely on copper in the ground. Furthermore,

domestic laws that should enhance cross-border connectivity are hardly serving their purposes internally and therefore are also unreliable for cross-border inter-connectivity requirements. In a nutshell, individual national communication commissions still have major ground work to be done to ensure efficient internal and cross-border connectivity. Compounding these problems are the realities on ground or the required inter-operability of networks across national boundaries. African countries have a knack for buying telecommunication equipment not solely based on international standards, but purely on gratuitous gestures from donor countries. Hence, networks deployed in many countries are unlikely to be easily inter-operable with networks in other countries as the equipments deployed are in many cases proprietary. The greater problem however is bandwidth. They all hope to upgrade their cellular networks to GPRS; but GPRS is not broadband and is inadequate for offering VoIP and broadband services.

The reality is that for several years into the future African countries will depend still on the limited and insufficient bandwidth provided by copper scattered in most countries. This will have several impacts. Firstly, the growth in mobile phone intake will continue to grow and fixed to mobile substitution will remain the order of business. Secondly, copper will limit growth in uptake of broadband services except in those countries where significant wireless communication infrastructure such as 3G and HSDPA are deployed. So far only South Africa has taken significant step in this direction.

Voice over IP which should naturally be the cost saving service for cash strapped telecommunication subscribers in Africa will not grow as fast as anticipated because it will be burdened by lack of adequate bandwidth, national regulations and restrictions from operators who so far have seen the uptake of private VoIP infrastructure as a source of revenue erosion.

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