

# 'Access to power critical to long-term improvement in service quality'

Inder Bajaj is the Chief Executive Officer of Helios Towers Nigeria and Director of Helios Towers Africa.

He has over 25 years of professional experience with leading corporate in the telecoms services and office automation sector. His experience in the telecoms sector includes over seven years with Reliance Communication and over five years with Airtel.

In this interview with ADEYEMI ADEPETUN, he spoke on the challenges confronting IT, telecommunications growth in Nigeria, most especially power. Excerpts:

**CAN you give us an insight into the operations of the telecommunications market and tower/infrastructure industry in Nigeria?**

Nigeria has emerged as Africa's largest market with over 125 million mobile subscribers. In revenue terms also, it has now overtaken South Africa with \$11 billion dollars revenue (as per the Meryl Lynch Global matrix 2Q 2013). With mobile penetration of over 75 per cent, it continues to grow in high single digits resulting in a growth of 1-1.5 million subscribers' monthly, as well as, increased usage by subscribers of both voice and data. Nigeria, being the largest market and yet growing, makes it the most attractive market in Africa currently.

I would categorise the growth in the last 10-12 years as a telecoms revolution. The impact on the consumer market, business sector and the Nigerian economy has been remarkable but at the same time the journey ahead needs to be planned to realise its full potential.

As far as the tower infrastructure industry is concerned, Nigeria has over 25000 towers of which 1300 are owned by Helios Towers. New towers are being deployed at a rate of 2,000 to 3,000 per year. The 2G & 3G Base stations are growing at 4,000 to 5,000 per year about half are 2G equipment.

Operators are investing heavily in their voice networks and data networks (3G) benefiting high levels of investment in the range of \$3 billion per year in the industry. From a tower perspective, the growth in tower numbers is for the

coverage expansion and also the need for density to deal with the capacity demands of the large customer base, increased content and usage.

Telecoms operators are increasingly relying on infrastructure sharing to reduce costs and drive efficiency. Colocation is clearly the preferred option, particularly with a tower infrastructure company available. Operators have also commenced sharing amongst themselves. Nigeria possesses significant growth potential in subscribers and capacity consumed per each subscriber.

Spectrum being a finite commodity, this will lead to growth in towers in urban areas as capacity fully utilised and additional towers will be required for extending coverage.

**How can describe Helios Towers Nigeria's experience, footprint and tenancy ratios?**

Helios Towers Nigeria (HTN) started as a Greenfield operator in 2005 and is the largest independent tower company in Nigeria with over 1300 towers adding over 500 new towers in 2012-13 alone. Helios services over 10 per cent of base stations deployed in Nigeria with a collocation ratio of 2.9, one of the highest collocation ratio in the world. With a well-balanced portfolio of over 1300 towers in urban & suburban areas and presence in 34 states including Abuja, HTN certainly has sufficient capacity to further handle the growing demand in the Nigerian market.

**What are the challenges faced by the telecoms**

**companies including infrastructure companies?**

While Nigeria represents a large and fast growing market, there are many challenges faced by the industry, which needs to be addressed by all stakeholders going forward to ensure she realises her full potential.

The first and foremost challenge is the high operational costs in the Nigerian environment due to poor availability of power. In the 25,000 towers in the country only 25-35 per cent are connected to the national power grid and where this connection exists power supply is only for an average of four to five hours per day. In other words 65 per cent to 75 per cent of tower sites run only on diesel powered generators.

Across all towers an average of only two hours of power is available from the national grid per day. Poor grid availability makes investments in transformers and grid connection non economical. The cost of generating power from generators is five to six times more expensive than cost of grid power. This results in telecommunications costs in Nigeria being three times the costs of other markets in Africa.

Power cost therefore has an adverse impact on telecom costs in Nigeria. In comparison with India, which has similar GDP per capita, average cost per minute for a Nigerian consumer to make/receive a call is seven cents per minute compared to one cent a minute in India. An average Nigerian subscriber speaks for a fourth of the usage of an average Indian subscriber because of this high cost, which is largely driven by the power costs.

The other adverse impact it has is on the quality of service, with the many challenges faced in sourcing good quality diesel and to deliver diesel to sites in a timely manner. To provide a high level of uptime of 99.97 per cent, HTN has adopted a strategy of two generators at each site along with large capacity diesel tanks. This is not cost efficient but would need to be done in the interim till grid power availability substantially improves.

The other key challenges include multiple



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regulations on the same infrastructure, multiple taxation fees and levies, prohibitive charges to procure right of way, vandalism and security challenges. The multiple taxation has taken a more pernicious turn over the past few years. The Ministry of Communications Technology, Nigerian Communications Commission (NCC), industrial bodies like ALTON has been taking many positive steps to address these challenges and find solutions to them. Subscribers still suffer poor service quality. Why is it so?

The sector has made tremendous progress in the last 10-12 years. Customers rightly expect high quality. Some basic things need to be addressed and addressing them is a joint responsibility of the industry players and the government.

First of all, the access to power which currently causes high costs and thereby indirectly reducing the funds available for more infrastructures. The lack of access to Power in general, results in higher investments in alternate source of power like, generator sets, Hybrid solution, Solar and also the Eco system costs go up resulting in higher capital spends and again less money available for more infrastructure. For example the cost of deploying a tower which is ap-

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# 'Why stable power supply is critical to telecoms sector'

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prox. \$150,000 in Nigeria is two times that of deploying in India. Also, relying on diesel as a source of power has its own challenges and hence impacts adversely on the quality of service.

Secondly the transmission Networks deployment, which is critical to QoS needs to be speeded. Whereas the industry players are rolling out Microwave and Fiber, it would require support from the federal and state government for the obstacles of multiple regulations, permit procurement and prohibitive costs to be removed.

The capacity requirement is very dynamic in telecoms as this is the basis for growth in users and usage. Therefore, for specific areas, operators would need to enhance the Radio Network, Passive (tower) Infrastructure and Transmission equipment on an ongoing basis.

**How can we overcome these limitations?**

While the sector has grown fast, the industry would require a supportive structure in the next phase.

With regard to Power, the investment and privatisation-taking

place in power generation, transmission and distribution of grid power, is a step in the right direction and should be speeded as much as possible. Substantial improvement would however take time. The industry players including telecom operators and us are investing a lot funds in deploying alternate energy sources like Hybrid Batteries, LPG Generators and Solar to mitigate the high cost of Power using Diesel generators till Grid Power availability improves.

On transmission network, which is critical, sharing of Fiber network amongst industry players is a good initiative. Addressing the obstacles of multiple regulation and Prohibitive costs would help. The NCC has also outlined a number of programs under the broadband Infrastructure framework and is working on licensing of infrastructure providers for an Open Access Model.

The capacity enhancement would need to be addressed by the operators. Spectrum availability is inversely proportional to infrastructure requirement. The availability and allocation of adequate spectrum to support mobile data growth in 700 MHz and 2.5 GHz band would be have a direct positive impact.

Lastly, we must acknowledge the huge progress made by the ICT sector and the positive impact it has had on the economy and well being of the citizenry. The ICT sector is the fastest growing sector of the Nigerian economy contributing over eight per cent to the country's GDP.

Also studies show that increase in internet, broadband or mobile penetration by 10 per cent increased GDP per capita by one to two per cent. The Association of Licensed Telecommunication Operators of Nigeria (ALTON) has appropriately recommended the designation of telecommunications networks infrastructure as critical national infrastructure, which has been done in several countries, which lends legal, and institutional protection and brought in some form of standardization and uniformity in the sector.

**How does co-location reduce costs or impact quality of services for operators?**

The co-location of tenants eliminates the duplication of capital-intensive infrastructure ( \$150,000 per site) by offering an "asset lite" model. Not only does this reduce the number of telecoms towers clustering up the skyline, but it also allows operators to invest their money in other areas, like new technologies.

Our business model also shares the ongoing fixed costs (which include costs for security, engine services, spares and maintenance, as well as regulatory and government levies) amongst all our tenant customers, thereby reducing their costs on an individual basis. Importantly, the operating cost advantage also extends to power, as customers can share generators. This reduces the use of fuel and emissions.

All in all, HTN can achieve a 50 per cent saving in capital and maintenance costs compared to the operators putting up a tower site for just for themselves. We are therefore able to pass on these benefits to our customers in our pricing, which in turn they can pass on to everyone as reduced tariffs to their customers.

The model of Colocation and Independent Tower Companies removes proliferation of masts dotting across skylines, and would also improve service quality, as infrastructure maintenance would be better managed by companies like ours, which have expertise and focus on that activity. Network congestion in urban areas will reduce because it is cheaper for mobile operators to rollout more services on already built and installed base stations, than building their own, which might not be cost-effective for each operator to build and maintain.

## Resourcery, VCE move to expand cloud technology

**WEST AFRICA'S** Information Technology solutions provider, Resourcery in partnership with VCE, a leader in converged cloud infrastructure solutions and Cisco, a player in networking are prepared to showcase the innovative IT solutions that would not only take organisations to the cloud, but also help bridge the challenge.

This was disclosed at a joint pre-event media parley in Lagos, at the weekend.

Titled, "Accelerate Your Data-center," and organised by the three organisations, this business session centres around the efficiency and effectiveness of the "vblock" systems. The "vblock" systems provide an optimised information technology platform, which accelerates the adoption of infrastructure and cloud based computing models. Overall, it reduces the IT cost of organi-

sations, as well as, improves delivery time to market applications.

Speaking on the importance of the business session and the company's partnership with VCE, Business Solution Manager, (Computing and Storage) for Resourcery Plc, Amechi Okonkwo noted that the session would provide an open platform for CIOs and IT managers in the financial services industry (FSI) to tap into the growing benefits of deploying the VCE Vblock Systems - the world's most advanced converged infrastructure.

He said customers all over

the world rely on the VCE Vblock Systems for the fastest deployment of infrastructure and applications, the highest application performance and availability, and the lowest TCO.

"And we trust that our customers in the financial sector, who are very innovative and always looking for ways to better serve their customers would take this opportunity to learn how to effectively deliver faster IT services to their end-users with increased agility and scalability. The decision makers would also see how scarce resources can be better utilised with improved security and

control", Okonkwo added. On his part, General Manager VCE EMEA (Europe, Middle East and Africa), Dave Rickson noted that while the "cloud" seems to be the buzzword in the information technology business today, the partnership between VCE, Cisco, EMC, VMware and Intel with Resourcery here in West Africa provides an opportunity for businesses across the region to experience a world of simplified progression toward private cloud computing by offering best-of-breed technologies, products, and services from a single source.

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