The Telecommunication Revolution in Nigeria

By

Dr. Ernest Ndukwe
Director, Lagos Business School’s Centre for Infrastructure, Policy, Regulation and Advancement (CIRPA)

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I wish to start by thanking the Vice-Chancellor, the Senate and Congregation of the great Igbinedion University for the honour of inviting me to deliver this year’s Convocation Lecture. Although I have not been closely associated with this University in the past, I am however well aware of its pioneering role in the delivery of private university education in the country. At a time when university education was dominated by the Federal and the state owned universities, most of which were not particularly well run and with students unsure of when their studies would end, it took the visionary and entrepreneurial spirit of the founders of Igbinedion University to know that university education should not be the sole responsibility of government, but a collaborative effort between government, private individuals and organisations. This visionary endeavour pointed the way to a good number of other individuals and organisations who have taken up the challenge and entered full stream into this noble endeavour. As at the last count, there are about 45 private universities, with most of them providing quality university education across the nation and giving prospective students choices, and playing a role in developing the much needed human capital that will assist in fueling our country’s developmental goals.

Introduction

Now to our topic of the day: “The Telecommunication Revolution in Nigeria”. Telecommunications remains a vital engine for development of any economy; it is an essential infrastructural component that promotes the development of other sectors including agriculture, education, industry, health, banking, defence, transportation and tourism. It is indispensable in day to day interactions and indispensable in times of national emergency or natural disasters; it also reduces the risks and rigors of travel. Therefore, the availability of a functional and efficient telecommunications infrastructure is a sine-qua-non for any country that wants to compete in today’s global economy.
The ground work and effort to deregulate and liberalise the sector commenced with the promulgation of the first Nigerian Communications Commission Act (Decree 75), in November 1992 and the subsequent inauguration of the first board of the Nigerian Communications Commission (NCC) in 1993. This effort did not bear much fruit as the law had a limiting effect on the liberalisation of the sector. Decree 75 still allowed NITEL to retain its monopoly over the Fixed wireline systems, Long Distance Transmission services and International Gateway services, thereby retaining its sole national carrier status. However due to the fact that the nation was under a military government during the first seven years of its life, the Commission did not have the necessary freedom and powers to carry out its functions. The rules of the game were not clear and the regulatory body that was to act as referee neither had the autonomy nor the resources to guarantee a predictable market place for potential investors. Of course the investors kept away.

It is instructive to note that although Analogue cellular service was introduced almost simultaneously in the mid-eighties in South Africa and Nigeria, while Nigeria could only boast of just about 25,000 analogue cellular mobile lines by the beginning of year 2000, with services covering less than 20% of country’s geographical area, South Africa already had two major GSM (Digital mobile) operators with total installed base of about 3 million digital mobile lines covering over 80% of the country. In fact South Africa was at that time, home to about 90% of the continent’s cellular subscribers! One of the operators was at that time said to be growing the subscriber base at the rate of about 150,000 lines per month which was a big deal then.

The Telecom sector, as vital as it is to human development and advancement was not given the necessary priority attention it deserved by successive governments since independence. At independence in 1960, the colonial government bequeathed about 18,724 telephone lines. The population of Nigeria then was put at 42.7million translating to a teledensity of 0.044%. From then till year 2000, the number of telephone lines actually in use (i.e. active subscriber lines) rose to just about 400,000 lines translating to an annual growth rate of less than 10,000 lines per annum nation-wide over the forty-
year period from 1960 to 2000. Meanwhile teledensity remained at a dismal 0.4% (far below the African average of 1.67%) while Nigeria’s population had risen to 120 million.

NITEL, the government-owned operator at the time, was either unwilling or unable to handle the volume of demand for telecommunication services by the increasing Nigerian population. Its services, when available, were mostly characterised by low call completion rates, congestion of trunk lines and exchanges and call billing errors. Nitel also had the problems of poor system maintenance and not making timely investment for network expansion to meet the demand for telecom services. There were high incidences of contested bills which subscribers argued they never incurred - some complained of receiving outrageous and unbelievable bills even while their phones were disconnected and not in use and unusually high subscription fee for obtaining phone lines. The waiting time for connection to a Nitel line was as long as two years. In 1999, it was estimated that there were over 10 million people on the waiting list of NITEL who had applied for telephone lines.

A number of licences were awarded between 1997 and 1999 to some Private Telecom Operators to provide telecom services in various parts of the country. Due to various factors including the fact that Nigeria was under military rule then made the operators unable to make any significant impact in the sector. Many of the PTOs neither had the funds nor necessary wherewithal to roll out networks on a appreciable scale. Those that succeeded in rolling out some networks were only limited to Lagos and a few of the major cities in the country.

Institutional Revolution

With the restoration of civil democratic rule in May 1999 came renewed calls for the reform of the sector. Barely a week into his administration, President Obasanjo inaugurated a committee to draw up a telecommunications policy for Nigeria and personally presided over its inaugural sitting. This committee came out with a telecom Policy document in September 1999. It was later determined that the 1999 policy
document was not comprehensive enough and therefore was slated for review. The document was subsequently passed on to the Telecommunications Sector Reform Implementation Committee (TSRIC), chaired by the then Minister of Communications with the Bureau of Public Enterprises (BPE) providing the Secretariat. The TSRIC, which met over a period of six months, had membership drawn from the Ministries of Communications, Science & Technology, the NCC, Nigerian Broadcasting Commission (NBC), representatives of NITEL, some private operating companies, the academia, etc. The TSRIC produced a new version of the National Telecommunications Policy (NTP) which was approved by the Federal Executive Council and released in September 2000, the hallmark of which was the blueprint for full liberalization of the telecommunications industry. The objectives of the Federal Government and the roles of the different players in the industry were clearly set out in the NTP. The NCC, as the independent regulator of the industry, was empowered to issue licences, assign frequencies, issue numbers and perform other regulatory functions as may be consistent with its mandate to promote the development of Nigerian communications industry and protection of consumers.

While the committee was busy working on the NTP, the Obasanjo administration moved swiftly to appoint new hands to head the NCC and inaugurate the NCC board which had operated without a board since 1994. I was appointed as the CEO of NCC in February 2000 and subsequently on April 3, 2000, the new board was inaugurated with Alhaji Ahmed Joda, a seasoned and astute administrator and former Federal Permanent Secretary as Chairman of the NCC board with eight other non-executive Commissioners and myself as Executive Vice Chairman and CEO.

The Obasanjo government no doubt regarded the Telecom Sector as a priority sector. The fact that the NCC board was one of the first boards that were reconstituted by the new government underlies the importance it accorded to catalyzing improvement in the sector and attracting serious investors.

Of course, on appointment, we were charged to see to the faithful implementation of government’s objectives in the sector, chief of which was to grow the nation’s
telecommunications infrastructure rapidly and ensure a competitive market place that will at once improve service quality as well as democratise access to telecommunication services.

When the new Board of the NCC was constituted in year 2000, the Commission’s workforce was small and in no position to adequately discharge their statutory functions. The building of a strong, professional and independent Regulatory institution was the priority of the Board. From inception we worked assiduously to build the regulatory structures required for enhanced private sector participation. New and competent staff were carefully selected and employed at the NCC. Salary structures were revised to ensure that the Commission was able to attract and retain quality manpower. Consultants were engaged for some critical assignments. In the ensuing years, the Commission developed a full structure and, today, has all the professional skills necessary to function as the nation’s telecommunications Regulator. It boasts of an eminent list of engineers and technologists and a good number of lawyers, economists, accountants and administration mangers.

To maintain and continuously improve on the skills base in the workforce, the Commission devoted a lot of resources to staff training and development. The Commission also placed a lot of emphasis on staff welfare and the maintenance of a good working environment. This has contributed to earning for NCC the reputation as an exemplary government agency and one of the foremost regulatory institutions in Africa.

Licensing processes were embarked upon in a most transparent manner and timely network roll out by licensed companies were facilitated by the Commission. Ground rules for interconnection were established which ensured that new entrants were protected from incumbent and dominant operators. The important provision was that interconnection must not be denied any operator duly licensed by NCC. Government also ensured the creation of a level-playing field with the incumbent operator, NITEL, being brought under the regulatory oversight of the NCC and NITEL was formally issued
an operating license by the Commission in 2001. The confidence of lending financial institutions was enhanced.

Nigeria opted for full sector reform and backed it up with a telecom policy document that clearly articulated the intentions of government for the sector and the roles of the various stakeholders. The National Telecom Policy was revised and published in Year 2000 and a new Communications Law enacted in Year 2003. Several regulations and guidelines were also enacted and published for the guidance of the industry. All these laid the foundation for the decade of Telecom Revolution between 2001 and 2011.

From a cluster of three detached dwelling houses in Garki, Abuja, and the subsequent relocation to the more conducive building, Benue Plaza, in the Central Business District of Abuja, today, NCC has a permanent and very modern Head Office building in the Maitama district of Abuja. NCC truly witnessed a structural and institutional
transformation and continued to strive to maintain excellence in its corporate governance practices and regulatory interventions.

**Regulatory Revolution**

Licensing operating companies and allocating operating frequencies transparently had been quite problematic and fraught with irregularities most notable were accusations of bias and political interferences in the past. For instance, between 1996 and 1999, about 23 digital mobile licences had been issued out to various companies to provide mobile services, but none of them succeeded in rolling out service. Some had problems having operating licence without frequencies while others were mere hustlers who got their licences due to closeness to government officials at the time but lacked the finance and the wherewithal to actualise the licences they were awarded.

In September 1999, the new Federal Government had convened a national Seminar on Telecommunications to chart a way forward for accelerating telecommunications development in the country. As a result of the views expressed at that forum, government decided to limit the number of licences for mobile operators to only four (4) with a five-year exclusivity period. The exclusivity period was an incentive to attract serious investors by making the market more predictable. Previously held GSM frequencies licences were subsequently withdrawn by the Ministry of Communications then to pave way for a fresh round of open and transparent licensing process. There was in fact an attempt to organise a spectrum licensing process in November 1999, but after the first round of bidding, there were allegations that the entire process was marred by irregularities. The uproar created led to the cancellation of the entire process.

Our appointment therefore came on the heels of the frustration of the government with past efforts to successfully licence companies to provide the much needed telecommunications services in the country and deep skepticism on the part of Nigerians and industry watchers on the ability of the Regulator to handle the transformation process.
Today, the NCC is widely acknowledged as a model telecommunications regulatory institution in Africa and in the past years, had played host to various representatives from other African telecommunications regulatory institutions on study tours. This is because of the landmark regulatory intervention, enactments and actions that characterized the last decade.

In mid 2000, the NCC commenced the process of licensing four mobile operators by way of a spectrum auction. A bid memorandum was published in both electronic and print media internationally. By November 2000 only five of the companies that applied were able to meet the criteria and therefore qualified to proceed to the bidding stage.

When the NCC advertised the DML auction and invited bids from interested international telecom companies, the announcement was greeted with some measure of skepticism and even cynicism from major foreign operators. For instance, the South African operator, Vodacom with its UK affiliate Vodaphone, declined invitations to them to participate in the bid. It seemed that many international operating companies were still unsure of what the operating environment in Nigeria was to be like despite the return to full democracy and establishment of institutions like the NCC. It is also possible that the pessimism was fuelled by the reports of various studies by telecom research agencies and some global financial institutions that forecasted a very slow growth rate for the Nigerian telecom market. It was forecasted that it would take up to twelve months for any operator to reach 100,000 subscribers, 3 years to connect 300,000 lines and 5 years to hit the half a million mark subscription rate. These very conservative estimates misrepresented the size of the Nigerian market and may have dampened the enthusiasm of some big operators that would have expressed interest in the mobile licence auction. Needless to say that few years down the line, many of those telecom companies that decided not to come into Nigeria at the time regretted their decisions and made many spirited attempts to enter the Nigerian market subsequently.

The NCC, in January 2001, successfully conducted the spectrum auction for three Digital Mobile Licences (DML). Three operators, ECONET, a consortium of Zimbabwean
and some Nigerian businessmen, MTN, a South African mobile company, and Communications Investment Limited (CIL), a Nigerian company, emerged successful in the bidding process with the bid price of $285 million US dollars each for a 15-year operating licence and with a five-year exclusivity period. The fourth licence was reserved for the incumbent operator NITEL and its mobile subsidiary M-TEL which also paid $285 million for the licence. Each licensee was also required to achieve a subscriber base of at least 1.5 million lines by the end of the 5-year exclusivity period. CIL eventually was to forfeit its licence after failing to pay the fee within the mandatory deadline. The licence was re-auctioned as part of the Second National Operator licence in 2002, which Globacom Ltd (a Nigerian company) won at the bid price of $200 million.

The DML auction, which was acclaimed locally and internationally as one of the best in the world owing to the high level of transparency in the process, signposted the desire at the NCC to be a highly professional and transparent regulator noted for strict adherence to laid down rules and regulations and gave the impetus to other licensing auctions that followed. This sent positive signals to the international community and foreign investors who began to place confidence in the sector reform process thereby leading to an unprecedented inflow of investment into the sector.

To deepen mobile penetration and ensure the simultaneous growth of both the mobile and fixed line segments, a number of private telecom operators (PTOs) were further licensed in 2002 to operate fixed telephony services in different parts of the country. This was done to broaden access and encourage competition in the industry. Also at the expiration of the five year exclusivity period, several companies enthusiastically applied for and were issued Unified Access Service Licences (UASL) The USAL regime was introduced to enable operators take advantage of convergence in services and technology in order to offer better services.

Apart from the wireless licences for mobile and fixed services several companies were licensed for National and International Long Distance Transmission services. Companies
such as Suburban, Phase3 and 21st Century have been active in Long Distance transmission services provision.

Through the award of these licenses the Commission has facilitated the phenomenal expansion of telephone lines in Nigeria. Indeed 2001 marked the year when the Nigerian market truly opened up to competition. Private sector participation was largely scanty and insignificant before 2001.

The transparent manner in which the Commission handled the DML gave the impetus for other licensing auctions that followed. These include, the Second National Operator (SNO) license granted to Globacom, Fixed Wireless Access (FWA) licenses on regional basis granted to 24 companies, the Unified Access Service Licenses (UASL), as well as the 3G licenses which have been granted to 4 companies. To further increase competition a fifth Mobile License (with GSM spectrum) was awarded to Emerging Market Telecommunications Services Limited, early 2008. Later on in 2007, some spectrum slots in the 900MHz band were offered to the market which was won by a new company Visafone. This was followed in May 2009 by another spectrum auction for spectrum slots in the 2.3 GHz band which were won by two companies, Spectranet and Mobitel.

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It is also instructive to note that before the launch of GSM services by MTN and Econet in August 2001, companies such as Multilinks, Intercelluler, Reltel, Starcomms and Mobitel had launched commercial services based on the CDMA technology. We have therefore had a Telecom revolution that has seen the CDMA technology develop side by side with the GSM technology in Nigeria. Just as Nigeria currently has the largest number of GSM connections on the continent it also true that Nigeria has the largest number of CDMA connections in Africa.

On the international scene, NCC facilitated the establishment of the West African Telecommunications Assembly (WATRA) which it has continued to nurture and support.
and is also very active within the African Telecom Union (ATU), The Commonwealth Telecommunications Organisation (CTO) and the International Telecommunications Union (ITU). With its subscriber growth rate and its position in Africa, Nigeria through the NCC, remained committed to facilitating the growth of the Nigeria's telecommunications sector, and taking its leadership position in telecommunications development in Africa.

**Consumer Protection Revolution**

In the period before the market was liberalized, Nitel hardly had a Sales/Marketing department. It was a seller’s market and little attention was paid to customer complaints. In fact Nitel hardly used the term “customer” to describe those who patronize their services. They were just subscribers! Today it is a buyer’s market with plenty of choices. Even in such a scenario, there is still need for consumer protection. The NCC has been fully engaged in this responsibility and has been very active and innovative in its effort to inform, educate and protect telecom consumers in Nigeria. It had also been fully discharging this mandate through initiatives such as The Telecom Consumer Parliament (TCP), Consumer outreach program (COP) and the establishment of Customer Care Centers:

(a) **The Telecom Consumer Parliament (TCP)**

This is a platform created by the Commission to bring together stakeholders in the industry (i.e. the Telecom Regulator, Operators and Consumers) to openly discuss problems affecting the consumers of telecommunications services. The program is usually recorded and broadcast on national television. This novel approach in dealing with consumer issues has been acknowledged by the International Telecommunications Union (ITU) as an innovative and effective mechanism for resolving the complaints of consumers. It is held every month across the six (6) geopolitical zones of the country. The TCP was the first of its kind anywhere in the world.
(b) **Consumer outreach program (COP)**

In this forum, the Commission addresses specific consumer issues, provide vital information and education to the consumers, creates awareness of its services and the consumers’ right to complaint, as well as bring operators face to face with consumers to deal with their needs, questions and concerns.

(c) **Customer Care Centre**

This centre is established within the Commission, and its job is to collate and respond promptly to consumer enquiries and complaints received through e-mails, formal letters, telephone, or in person. Consumers are encouraged to only approach the Commission only when the operators are unable or unwilling to solve their problems. Many consumers have had their complaints resolved through this medium.

(d) **Collaboration with Consumer Advocacy Groups**

The Commission is collaborating with several Consumer Advocacy Groups in Nigeria to further expand the avenues for consumer protection in relation to telecom services delivery. It has also signed an MOU with the Consumer Protection Council (CPC) aimed at collaborating to further ensure protection of Consumers in relation to telecom service delivery.

The NCC, on a number of occasions, has had cause to give orders and directions to operating companies on behalf of consumers. For example, the Commission at various times stopped the service providers from engaging in promotional campaigns that led to increase in the volume of traffic and inducing network congestion, until such a time as there were substantial improvements in the Quality of Services provided by the networks. NCC had also directed that service providers were not to place any restrictions or time limitation on validity of airtime credits so that subscribers were not compelled to utilize their call minutes within restricted time frames.
It is true to state that the major contributor to the QoS challenges has always been network capacity constraints. Due to the rapidity of uptake of telephone lines since 2001, the operating companies have not been able to expand their networks fast enough to meet the ever growing demands by subscribers for voice and data services. This was further aggravated in the earlier days by the total collapse of Nitel Long distance transmission infrastructure which a number of Service Providers depended on for their interstate links initially. With the fall of Nitel also came the collapse of Mtel and therefore the subscribers to the Mtel services migrated to the other networks with its attendant effect of network congestion.

Other issues such as major deterioration in the public power supply situation; security challenges; theft of equipment; transmission cable cuts; delay in securing approval for sites for new base stations; harassment by some government agencies especially at state level, etc, had also contributed in various degrees to the problem.

To ensure that this situation remains the focus of the industry stakeholders always and although the responsibility to ensure good and acceptable quality of service should rest with the Service Providers, the Commission went ahead and constituted an industry working group on Quality of Service in 2007.

**Telecom Service Revolution**

The opening up of the market to competition in all market segments including those previously held exclusively by Nitel, the monopoly incumbent operator, provided the stimulus for attracting investment in the various service areas.

Before digital mobile services were launched in August 2001, ownership of telephones was the exclusive preserve of the well to do and the well connected in the Nigerian society. Ten years on, the telecommunications sector has recorded phenomenal growth both in terms of subscriber’s base and infrastructural development in the country. Telephone ownership has been democratized. By end of September 2011 the active subscriber base was at 93.5 million and 66.7% teledensity (Source NCC website). This growth has been made possible by the injection of about 18 billion US Dollars of
private sector investment in licence fees, building infrastructure, development of local manpower, empowerment of local companies that provide support services, etc.

In order to facilitate the penetration of internet services the Commission has licensed several Internet Service Providers and has further encouraged the spread of internet access by initiating a class licensing regime to simplify authorization processes for the rollout of cybercafés and tele-centers.

Some of the initiatives that were employed to ensure further infrastructure development and growth of internet services in the country include:

**Wire Nigeria (WiN) Project**

Rapid roll out of network resources such as base station and switches which should result in improved quality of service have been hindered by insufficient transmission infrastructure across Nigeria, with optic fiber and microwave transmission lines only available in limited number. The WiN project aims at ensuring that all the States of Nigeria are linked to the national optic fibre backbone infrastructure. Therefore, the Commission in consultation with the operating companies offered incentives to encourage more rapid expansion of the transmission infrastructure through the development of fiber transmission cables. Since 2003 over 20,000km new optic fiber cables have been installed the companies involved in installation of fiber cable over electric power lines. This has greatly increased the long distance transmission capacity available to support the fast network growth. The Commission expects that in the next two years Nigeria will be fairly well served with transmission capacity to support anticipated large scale demand for broadband, voice and data services.

**State Accelerated Broadband Initiative (SABI)**

There is already a growing broadband divide between Africa and the rest of the world with Nigeria recording very low internet and broadband penetration nationwide. There is therefore an urgent need to initiate policies that are aimed at promoting faster deployment of broadband in Nigeria. The SABI project was
NCC’s immediate response to this requirement and was designed to encourage the operating companies to build and run broadband infrastructure with Government support and incentives in all state capitals, major commercial cities and subsequently all over the country.

Today, most of our major highways are now covered by mobile signals; several rural communities have access to one form of telecommunications service or the other; our law enforcement communities have the necessary tools to keep in touch with their bases; medical practitioners have had their work facilitated by telecommunications services; and both small, medium and large scale businesses have been empowered by these vital ICT tools. Indeed, the Nigerian economy has been impacted positively through job creation, improved business performance, and timely information exchange. The progress made in this sector in Nigeria has made it possible for the nation to become the largest telecom market in Africa in terms of subscriber telephone lines. The achievement recorded in the last decade has presented the sector as an example of how a well articulated and well executed Sector Reform program can transform the fortunes of a nation.

**Tariff Revolution**

There were fears in some quarters that the opening up of the market to competition in all segments of the industry may make cost of telephone services outside the reach of those at the bottom of the pyramid. But results so far has shown that opening up of the market has in fact resulted in major drop in prices for telecommunications services. Pre-2001, the cost of subscription to MTEL’s analogue mobile services was over N60,000 per line. In 2001, the GSM subscription started with a price of twenty thousand Naira (₦20,000) per line and today, this figure has fallen to virtually zero. The tariff for calls on the GSM network was as high as fifty Naira (₦50.00) per minute. Today, a call on any network can be made for lower than twelve Naira (₦12) per minute even to many international destinations.

Although it does not fix retail prices, the Commission consistently monitors the prices at which the operators offer their services to the public. The Commission however
intervened as necessary in determining interconnect rates for the industry once there was a need to do so. The combined effect of the three interconnect rate determinations made in 2004, 2006 and 2009 was the reduction of the mobile termination rate from about N30 to 18.00 per minute in 2003, to 11.40 per minute in 2006. The Commission also introduced asymmetric interconnect rates regime for the first time of 8.20 per minute and 11.40 in 2009. The reviews in interconnect rates have generally enabled the operators reduce retail tariffs for calls.

The policy of licensing competitive operators in all segments of the market as a way of improving competition and lowering call tariffs has paid off. Today, the Nigerian ICT market remains the most competitive ICT market in Africa, with service providers fiercely competing for market share.

### Socio-Economic Impact of the Telecom Revolution

The Nigerian socio-economic landscape has been greatly transformed thanks to recent developments in the telecommunications sector. It has had positive impact on virtually all facets of life in the country – political, social and economic. Government's interface with the citizens is now faster, family contact is renewed across distant parts, and businesses thrive and perform better thanks to their ability to link their customers in new and innovative ways. Ownership of phones now cuts across the various social classes, opening great opportunities for e-government, e-health, e-education, e-security, e-commerce, e-banking, etc, in the country. The growth in the telecommunications sector has resulted in the creation of over 16,000 direct jobs in the telecommunications sector, and several millions more are informally employed through the sector. Today the telecom sector is a key contributor to Gross Domestic Products (GDP). The telecommunications sector has continued to actively contribute to the Gross Domestic Product (GDP) of Nigeria. The percentage share of GDP from telecommunications sector rose from 0.06 in 1999 to 3.5% by 2011 [Source: Ministry of Communications].

Thanks to the licensing of these operators and the ensuing growth of the telecommunications sector, the Federal Government between 2001 and 2010 has earned over $2.6 Billion US Dollars from spectrum licensing fees alone. Import duties and
taxes from the telecommunications industry have also contributed substantial revenue to the Federal Government.

**The Digital Bridge Institute (DBI)**

The growth in the number of skilled manpower required for the telecom industry in Nigeria since year 2001 has been enormous. The Commission as an effective Regulator was committed to ensuring that the dearth of skilled Nigerians to run the fast expanding telecom industry in the country was remedied. A milestone was achieved on May 20, 2004 when the President, commissioned the ultra modern Digital Bridge Institute (DBI) in Utako, Abuja, established by the NCC as an international Centre for Advanced Communications studies. Its primary aim is to ensure that some of the technical manpower requirements for the ICT industry are met with adequately trained and skilled personnel that can be recruited into the fast growing ICT market in Nigeria. The DBI also carries out training in other specialist areas such as economic analysis, financial planning, law, arbitration, mediation, interconnection, e-commerce, business management, human resource management and consultancy services. The Government Telecommunications Training Schools in Kano and Oshodi were transferred to the Commission by the Federal Government and have since become campuses of the DBI. It is planned that the expanded DBI will be providing various training programs for hundreds of people annually, to service both local and international ICT markets.

**The NITEL Dilemma**

It must also be stressed that in those early days we advocated that it was important that NITEL must continue to be strong and efficient in order to be able to play the role that was required of it in the emerging competitive environment. NITEL was then the only carrier in the network, which meant that all new entrants would depend on her for transmission infrastructure to link their networks around the country. We recommended that adequate investment must therefore be made urgently by NITEL (especially in the area of long distance infrastructure) to be able to take advantage of the business opportunity that was coming from the then newly licensed operators. This was however
not done. If such investment was made and the right management team put in place, there is no doubt that other private operators would have patronized their services and the company, NITEL would have been a major player and a very successful enterprise today.

Future Prospects and Challenges

For the future and to sustain the progress made in the industry it will be critical for government to continue to maintain stability in the policy and regulatory space. The high investment levels that have been attained in the sector, was not because Nigeria suddenly became one of the most desired investment destinations for ICT in Africa or because of its large population, but largely because of the stable policy and regulatory regime that the industry enjoyed since 2000. This must therefore be maintained.

It is also important to maintain the political and financial independence of the regulatory institution. Regulators need to be able to regulate the market fairly and earn the confidence of investors, consumers and other stakeholders.

Nigeria must strive to maintain an operating environment that is conducive to attracting investment by avoiding actions that can constitute a disincentive for investment. The telecoms sector is very capital intensive and therefore, to continue to encourage timely network expansion, improve quality of service and ensure national coverage in Nigeria, emphasis must be on ensuring an attractive operating environment.

There is also need for efficient management of national spectrum resources including timely sale of available frequencies to support new technologies. Spectrum is the oxygen that sustains the wireless ecosystem.

Nigeria still needs to grow her teledensity figure from the current level of about 66% to over 100% to achieve the vision 20-2020 targets for national development. The USPF will no doubt have a critical role to play in extending services to rural communities. We must reach all parts of the country with both voice and data carrying infrastructure. It is
instructive to note that today; over 70 countries in the world have passed the 100% teledensity level.

We must continue to place emphasis on growing broadband infrastructure and catalyzing adoption and usage of internet and broadband services by the citizens. Broadband is no doubt an accelerator of social and economic development in the modern world with its applications enabling and facilitating economic and social services such as Public Safety, National Security, Telemedicine, governance structures, distance learning, utility applications etc. It should be collective responsibility of policy makers the regulators, governments at all levels and other stakeholders to catalyze a much higher penetration of internet and broadband facilities at business premises, educational institutions, homes and on mobile devices. The expansion of fibre optic cable transmission infrastructure nationally and internationally will be necessary in achieving this objective.

A major source of excitement that point to the fact that Africa is on the threshold of major economic boom is the fact that there are currently eleven major submarine fiber-optic cable projects in Africa (SEAS, SAT-3/SAFE, SEACOM, TEAMs, EASSy, LION, LION2, GLO-1, Main One, WACS, and ACE- (See ManyPossibilities.net). Five of them are on the West African Coast of the continent and are all live except for the fifth one, Africa Coast to Europe (ACE), which is projected to be ready to go live by mid 2012. The new bandwidth could boost data capacity to more than 16 terabits a second by 2012, from almost none in 2000 and may reduce broadband prices by as much as 90 percent.

Regarding challenges, the threats that I see that could slow down development in this sector include the activities of some state governments that by their actions and utterances indicate that they do not quite understand the importance of ICT to human development in the modern world and the potential that ICTs provide for attracting investments to their states. They see operating companies as immediate sources of revenue rather than see them as agents of societal transformation and emancipation and partners in progress that they really are.
Distinguished ladies and gentlemen, the progress recorded in the telecommunications Sector within the last decade has improved the nation’s ICT ranking in the world and has positively impacted nearly all sectors of the nation’s economy. Nigeria has also become Africa’s largest telecom market in terms of connected lines. The achievements in the industry so far can be partly attributed to the foresight of government in initiating and giving us the free hand to implement a successful sector reform and partly because of our determination and insistence, despite all odds, to deliver a regulatory environment that was fair, firm, transparent and predictable. This has translated to the revolution that has been associated with the sector in the last 10 years; a revolution that has led to the democratization of telecommunications access in Nigeria and making the benefits and impact of ICTs available to the masses especially those at the bottom of the pyramid and the most traditionally disenfranchised groups.

Thank you