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A KEYNOTE ADDRESS

BY

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WITH THE THEME:

CONTRIBUTIONS OF GOVERNMENT TO THE DEVELOPMENT OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN NIGERIA

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It gives me great pleasure to address this special gathering of Stakeholders in the ICT industry at this annual symposium of the Information Technology and Telecommunications Trade Group of the Lagos Chambers of Commerce and Industry.

I gladly accepted the invitation to attend in person because of the importance the Nigerian Government attaches to Telecommunication and information Technology development as a vital infrastructure for economic development which is symbolized by your trade group as major stakeholders. International experience has shown that adequate provision of Information and Communications Technologies (ICT) usually translates to general economic growth of any nation and can greatly enhance a country's prospects for achieving sustainable development in the information-driven world of today. Telecommunication has therefore been identified as one of the priority sectors of the Obasanjo Government and we have consequently taken steps to strengthen the various organs of government that are charged with the responsibility of attracting necessary investment into this sector.

As we all are aware, the world is in the midst of an information revolution. In Nigeria today, telecommunications is one of the most dynamic economic sectors, which until not long ago was a relatively unknown territory. Hardly does a day go by without telecommunicatio ns making news in our local print and electronic media.

Today, businessmen, policy makers, lawyers, politicians, state governments, development organisations, legislators, educational institutions, consultants etc are now actively involved in telecommunic ations.
Information and Communications technology play a central role in the economic, social and political life of every nation. Nigeria, like most developing nations, requires massive investment in this vital sector in order to extend affordable telecommunications facilities and access to all Nigerians.

It is the major object of the Nigerian Government to extend the benefits of ICT to all Nigerian citizens.

Since the invention of the telephone by Graham Bell in 1876, the world has continued to devote a lot of resources towards the development, improvement and expansion of telecommunications facilities for the service of humanity. The relevance of telecommunication to human existence has continued to grow unabated.

ITU Research in the 1960's and 1970's documented the importance of telecommunication as infrastructure for economic and social development. It was shown that in industrialised nations, telecommunications services are used in

connection with a wide range of economic production and distribution activities, delivery of social services and government administration.

THE DIGITAL DIVIDE

Advancements in digital technology ushered in the information era about three decades ago. Today, information is regarded as a fundamental factor of production along side capital and labour. The information economy accounted for 1/3 to 1/2 of the gross domestic product (GDP) and employment in organization for Economic Cooperation and Development (OECD) Countries in the 1980's and now about 2/3 for the European Community. Information also accounts for a substantial proportion of GDP in the newly industrialised economy in the Asia Pacific region.

These developments have however been concentrated in the more advanced nations of the world who very earlier on identified telecommunications as an important tool for the management and control of human and material resources.

Unfortunately most developing countries have been lagging behind in taking advantages of the benefits that Telecommunications Technologies present, thus creating barriers to knowledge based development.

For example, in August 2001, there were 514 million people online worldwide i.e. with Internet access.

- 4 million were Africans.

- 144 million were in Asia and the Pacific.

- 25 million in South America.

- 155 million in Europe.

- 181 million in North America (US & Canada).

In 1984 the ITU published a report (The Maitland report), which identified huge disparities in the distribution of telephones around the world. The report stated that three quarters of the world's telephones were located in just nine countries namely the major industrialised nations including the United States, Japan and the major economies in Western Europe. There were more telephones than in Tokyo than in the whole of Africa.

BRIDGE BUILDING THROUGH MARKET REFORM

The Maitland report had recommendations on how to address the imbalance in the provision of telecommunications services. The imbalance, which was then referred to as the "missing link", is today being described as "digital divide."

The main focus of the report was to achieve wide acceptance of the important role that the telecommunications sector plays in economic development. It also focused attention to policy and overall regulatory environment as a key pre-requisite for enabling new investment and expansion of ICT infrastructure in information-poor countries. The African continent does not only fall far behind on the world's share of ICT but also holds the highest number of the world's Least Developed Countries (LDC's). It is imperative that internationally tested solutions are applied to ensure that Africa is urgently integrated into the emerging global Information Society as an active player. There is therefore need for market reforms as a pre-requisite for attracting urgently needed investment into the sector. Gone are the days when governments closed their doors to foreign investment and expect progress in economic development. Even the communist countries of yesteryears have opened up their markets for foreign investment. The old myth of telecommunications being a strategic sector that must be controlled by government for "Security reasons" is a thing of the past. This has also guided the policy thrust of government for a liberalized sector.

Just as it is impossible to confine the wind as it blows across a nation, so is it impossible for any nation to confine telecommunications services within its territory in today digital age. Technologies like Satellite Transmission, Global Mobile Personal Communication's Systems (GMPS), Inmarsat Terminals, VSAT, etc know no national boundaries.

Nigeria like other countries of the world has therefore embraced the universally accepted change agents of market liberalisation, privatisation of state run enterprises and promotion of competition. Telecommunications operating entities irrespective of who owns them perform best when run as a profit-driven business. Consequently, State operating entities are universally being distanced from government by reorganising them into either mixed state/private companies or fully private companies.

Once the right policy and regulating environment is created, private capital is immediately attracted to the sector. New innovative products are introduced and the sector becomes more vibrant and active. Waiting lists for telecoms service are reduced or eliminated.

DIGITAL OPPORTUNITY

With the saturation of telecommunications facilities in the more advanced regions of the world, Africa remains the last untapped major market for investment in this sector. The annual rate of return of telecommunications investment in developing country is often in the range of 20% - 30% or more. Large pent-up demands make attractive business cases. Therefore, international operators that are seeking new opportunities in untapped emerging markets now see Africa as a good investment destination.

Government believes that in a situation where there are more investment opportunities around the world today than there is global investment capital, the potential investor will take many factors into consideration in deciding where to invest. These factors include government sector policy, the legal and regulatory environment, taxation, tariffs, foreign exchange policies, labour laws, etc. Political stability and a visible and strong government commitment to reform are equally essential in investment decisions.

These issues must therefore be borne in mind, as governments plan to attract private, local and foreign investments required to grow the industry.

THE INTERNET AND THE ACCESS QUESTION

Internet can be defined as the global information system that is logically linked together by a globally unique address based on TCP/IP suite of protocols. The Internet more than any other technological tool has the potential to accelerate the transition of developing countries such as ours into the digital age. Internet is a fundamental tool for the information age and with other recent technological developments has the potential to help bridge the development gap between the information rich and information poor countries of the world.

There must therefore be a concerted effort by all to get people online. To get people online however requires them to have access to communications infrastructure of one type or the other. Otherwise being connected to their fellow citizens and to the world at large may continue to be an elusive dream of most people.

ACCESS TO ALL

The "missing link" of the Maitland report of 1984 referred to access to basic telephone services. However, the digital divide of today goes beyond this to describe the technology mismatch between the information-rich and the information-poor. This has bigger consequences than what was promoted twenty years ago.

The missing link was primarily an infrastructure problem, since it is about access to telephone lines. Once the telephone line is installed, the "missing link" problem is solved, since people do not need to be educated or literate to use a basic telephone. Today's technologies for the digital age are different. They are more complex and require a minimum level of education to be able to use it even when the access exists.

Therefore, government believes that there is need for a holistic approach to be adopted in tackling the issue of the digital divide. While attention is being focused on the infrastructure divide we must also look at what I will like to describe as the literacy divide. The ability to read and write is a basic requirement for membership of the digital community.

In most countries of Nigeria for example, the literacy divide is high. There is therefore need for government to focus on policies that can raise the literacy level in their societies. The youth of tomorrow must all be exposed to even the most basic of education to equip them for participation in the digital age.

The infrastructure divide however, should be our most urgent concern today as ICT Practitioners. In Nigeria the telephone penetration is growing fast but still shockingly low. Internet penetration also does not match event the level of literacy that exists in our country today.

Access to the Internet is in fact very important and has the potential of accelerating the integration of Nigeria into the information age. Quoting from an ITU publication, it states: "if information is power, then the internet must be the easiest way of empowering those that have traditionally been left behind." There is therefore this twin headed challenge that we have to address – providing basic telephone access to all and then Internet access to all those who can use it.

Perhaps, this gathering will devote time to address the issue of how to accelerate the build out of the infrastructure required to meet this challenge. My view is that three major technologies hold the key to solving the challenge of accelerating digital access to most Africans within the shortest possible time: Mobile Communications, VSAT and Internet.

Mobile communications by its nature grows very fast and can cover a lot of territory within a short period of time. With almost five million new mobile lines every month, wireless access is already overtaking fixed access in Nigeria and in a number of countries worldwide. The VSAT by its nature can reach even the remotest part of the country especially places where terrestrial infrastructure are either too expensive to provide or will take a long time to cover. The phenomenal growth of Internet along with development in multimedia technology is already transforming the way telecommunication is used.

Internet is the infrastructure of the digital age and opens the door to e-commerce, e-education, e-health, and e-government. While these three technologies may be front liners, other technologies such as optic fiber transmission links, microwave transmission links, fixed wire line and wireless links also have major relevance in the infrastructure build out equation and must also be accorded due attention. We are therefore faced with the challenge of harnessing effectively a complex array of technologies and systems available to achieve the goal of providing telecom access at breathtaking speed.

The recent launch of digital mobile services across the country and speed at which they are expanding, has demonstrated the hunger that exists in Nigeria for telephone services. Access to telecommunications and information technology holds the key to the Nation's ability to respond to the demands of its position in the new world order. Access to basic telephone services must be a reasonable expectation of every person that lives within the shores of Nigeria.

Accelerating the creation of an Information Technology infrastructure across the nation in the next few years is perhaps one of the important tasks for the present generation both in the public and the private sectors of our economy.

GOVERNMENT ROLES AND CONTRIBUTIONS – PRE LIBERALISATION ERA

By virtue of its position, Government is responsible for setting broad policy guidelines that give strategic direction for developmental initiatives, programs and activities as well as responsibility for legal/regulatory oversight. However, in the years following independence in 1960, Government involvement was absolute, spanning policy making; legal and regulatory framework provision; as well as the operational activity of service provision. This was consistent with extant national and international philosophies of state monopoly provision and control of these social services for overall public good of the country. The National Development Plans provided policy direction and the operative instrument for management of the various sectors of the economy. Over time however, Government gradually divested its engagement in operational activities.

Thus the telecommunications and broadcasting sectors grew under complete control of the State (Federal Government) as was the case with other sectors of the economy. The Department of Post and Telecommunications (P&T) carried on the business of providing domestic telecommunications services, while the Nigerian External Telecommunications (NET) a joint venture between the Federal Government and a private concern provided external telecommunications services. In the broadcast sector, Nigerian Television Authority (NTA) and the Federal Radio Corporation of Nigeria (FRCN) carried on the business of television and radio broadcasting respectively. At the time, computing as an aspect of ICT could be said to be in its infancy in Nigeria, growing essentially through private sector

initiatives with little Government intervention. Thus with the exception of the computing sector, Government provided overall policy direction, regulation and funding for operational activities for ICT development to the exclusion of private sector participation.

A shift in this policy framework came in the 1980s. For the telecommunications sector, this was fuelled by (i) rapid advances in technology, that; (ii) heightened individual and business consumer demands for better quality and more sophisticated services comparable to what is obtainable internationally; coupled with (iii) dwindling fortunes of Government; and (iv) inefficiencies in the management and administration of public departments and Government Owned Enterprises, GOEs. And so this combination of technological and economic demands necessitated sector reforms towards commercialisation of operational activity. This led to Government merging P&T with NET to form Nigerian Telecommunications Ltd (Nitel) to provide co-ordinated development of internal and external telecommunications services on a commercial basis to meet surging demands. The shift to commercialisation contributed to increase in number of telephone lines in the country under NITEL in a shorter period of time than its predecessor P&T had done.

In the broadcast sector, political pressures prevailed, and sector reforms that ensued encouraged the emergence of more radio and television stations owned and operated by State Governments to meet the yearnings for greater coverage of State news and activities. These reforms however served as precursors for the eventual opening of the sector for private sector participation in the 1990s. The computing sector on the other hand had little Government influence and continued to grow through a series of private sector initiatives.

The 90s brought about a paradigm shift that saw the emergence of private sector led economies, giving rise to further liberalization of the ICT sectors in Nigeria. This led to a policy shift that permitted the opening of the sector to private sector participation. Hence Private Operating Entities (POEs) were allowed to provide ICT services alongside GOEs, on the one hand with privatisation of GOEs on the other.

GOVERNMENT ROLES AND CONTRIBUTIONS – POST LIBERASATION

Government's contributions to the development of the ICT sectors could be seen from its initial funding and bureaucratic control of the sectors through the ongoing reforms and progressive liberalization to the private-sector led environment that exists today. This has allowed Government to become more appropriately focused to provide broad policy direction which brought about major reforms in the ICT sectors. Consequently, Government, through its Ministries; focused on policy formulation and direction, while specialized National Regulatory Authorities

(NRAs), conceptualized to be independent and operate professionally, were created to focus on regulatory matters. POEs alongside GOEs carried on with the business of service provision. Thus NCC and NBC were created as NRAs for the telecommunications and broadcasting ICT sectors respectively. Government contributions focused on providing overall policy and regulatory framework as well as institution building for private sector led growth and development in the ICT sectors.

Government developed and/or revised National Policies on Telecommunications (NTP) and Broadcasting (NPB) over the years to give clear guidelines on industry structure and responsibilities of the various entities therein, in order to maintain focus and make the ICT sectors attractive to investment (local and foreign). Government has also undertaken or is in the process of reviewing subsisting legislation in the ICT sectors to modernize them and make them conform to modern day realities. etc. In this regard, the NBC Act has been amended to provide for a more focused, independent, professional and strengthened Commission, while a new Communications Bill has just been passed by the National Assembly and is awaiting Mr. President's accent.

Relevant provisions of the NTP and provisions in the new Communications Bill as well as the Wireless Telegraphy Act seek to contribute the following, among others to the development of telecommunications in Nigeria.

- Universal Access

  Provides for the establishment of a Universal Access Fund for the purpose of funding universal access programs of Government.

- Privatisation of the National Carrier.

  Provides for the privatization of the State owned National Carrier, NITEL to free the company from Government bureaucratic controls and encourage her to operate more efficiently in a rapidly changing telecommunications market place, as well as minimize undue advantages that the company enjoys by virtue of being a public corporation. This creates an unleveled playing field for private operators when government mixes the role of policy maker and regulator with that of operating networks.

- National Frequency Management Council.

  Provides for the establishment of a National Frequency Management Council (NFMC) to be responsible for block allocation of spectrum to NCC, NBC, etc, for management and assignment for end users.

- National Telecommunications Carrier.

  This makes provision for establishment of a Second National Operator in the country to promote competition and expand telecommunications services nationwide.

The implementation of the above developmental programs contained in the National Telecommunications Policy resulted to the following significant achievements; which constitutes government contributions to the national ICT developments. These include but not limited to:

- Licensing of the incumbent National Carrier by NCC:

  The National Carrier, NITEL has been formally licensed and given license obligations to make it operate under the same license conditions as other private telecommunications companies and the Second National Carrier.

- Licensing of GSM Operators.

  The licensing of three national GSM Operators in 2001 through an internationally recognized auction process has led to the addition of about 2 million mobile lines in the country to date.

- Licensing of Fixed Wireless Access Operators.

  The NCC licensed a total of 20 Fixed Wireless Access (FWA) Operators in 2002, to accelerate the penetration of telephony services throughout the country and avoid the current situation where operators who were awarded National Licenses have largely remained in the large commercial cities and States of Lagos, Port Harcourt and Abuja. After initial delays in the roll out schedule, the companies have indicated that they will be operational around the third quarter of 2003. When operational, the companies are expected to provide competition to the incumbent National Carrier in the area of fixed telephony services provision. In addition to voice telephony, they are also expected to provide data and Internet services.

- Second National Carrier and Fourth GSM Operator:

  NCC also licensed the Second National Carrier to compete with the incumbent National Carrier in the areas of local exchange, trunk and international voice and data services as well as a GSM mobile telephony.

The government in recent time also took some actions and made pronouncements which equally contributed to development of the sectors. This are:

- Transfer of relevant responsibility for Spectrum Management to NCC:

  Portions of radiofrequency spectrum were recently transferred to NCC for management and administration for non-government commercial telecommunications service provision. The arrangement seeks to promote greater efficiency in the administration of spectrum in the country as well as enable better focus by both the NCC and the Ministry of Communications (MoC) who continues to manage and administer spectrum for government telecommunications services requirements.

Another contribution of Government that is worth mentioning is introduction of the following incentives in the telecommunications sector that have contributed to ICT development in Nigeria:

- Import Duty Reduction:

  Reduction in import duty on telecommunications equipment from 25% to 5% to boost the growth of the sector.

- Pioneer Status:

  Granting of Pioneer Status through tax exemption for a period of 5 years to newly established telecommunications network operators to promote the development of the sector.

It is worth mentioning that government contributions in the telecommunications sector has led to the phenomenal increase in the number of mobile telephone subscribers in the country that has made the country one of the fastest growing mobile markets in the world and attracted over $2 Billion of investment between year 2000 to date. The recent licensing of FWA Operators and Second National Carrier (SNC) is expected to further accelerate growth in this sector to meet suppressed demand for residential, Small Office Home Office (SOHO), Small and Medium Enterprises (SMEs) and other large corporate concerns. This will greatly impact the growth of the national economy.

Government also contributed immensely to the development of computing sub-sector of ICT in Nigeria. As mentioned earlier, in contrast to the other ICT sectors, the computing sector grew and developed largely through private initiatives and relatively less Government oversight. However, due to rapid advancements in computing and networking technology; the Internet; convergence of computing, telecommunications and broadcasting, the computing sub-sector of ICT emerged from its relative insignificance in the 1960s to a formidable sector in the 1990s. The anticipated impacts of this sub- sector on the emerging global information society and economy attracted Government attention. It thus; became a priority national agenda of government. Consequently, government published a National

Policy for Information Technology (NPIT) which led to establishment of the National Information Technology Development Agency (NITDA) in year 2001 to give effect to implementation of the NPIT.

The overall objective of the NPIT is to ensure that ICTs are readily available to foster efficient national development for Nigeria. Its focus on the areas of policy and operational activity for ICT encompassing:

- National Information Infrastructure (NII);

- ICT service provision and the CPE market;

- ICT Research and Development;

- Equipment manufacture;

- Software Development;

- Human Resource Development (HRD) for ICT development in Nigeria
  ICT Governance; and

- Overall Capacity Building in ICTs;

The NITDA has been contributing actively to ICT development in a number of the above mentioned areas.

CHALLENGES

The ICT development in the country continues to create challenges that will require Government action as ongoing contributions to ICT development. Some of the greatest challenges are in the areas of Human Resources Development (HRD) for Government, the Regulatory Authorities and development agencies, as well as the Operating Entities in the fast evolving ICT sectors. For the NRAs in particular, regulatory capacity for effective and efficient delivery of services to the industry is a major concern, in the light of rapid obsolescence of technologies.

The HR question is indeed a global issue and both the ITU and UN have established that capable human resources that will fit into the new ICT environment has now become a major drawback for both industrialized and developing countries alike. Although the National Policy on Telecommunications provides for the establishment of the National Telecommunications Institute, this is yet to be done. The NCC has however taken steps in this regard and is in the process of establishing a Training Institute in Abuja as part of its own contributions to Human Capacity development for the ICT industry.

Another challenge in the liberalized environment is the efficient management of spectrum for the growing request and applications in the ICT sectors. Yet another challenge before the ICT industry is the management of competition. This as well as some other issues of convergence such as the provision of some news and bulletin services by GSM Operators to their customers and also the provision of Internet (Web TV) services by a Direct to Home (DTH) digital satellite TV broadcast company are poised to challenge existing policy, legal and regulatory provisions and require further action by Government.

No doubt, the continued growth and development and convergence of the ICT sectors will bring expanding opportunities that will continue to demand reviews to Government policy, legal and regulatory oversight, etc, to continue to give direction to the industry.

Other existing and new challenges to ICT development identifiable including local manufacture of components and equipment and the need to position for industrial takeoff and development of the country in view of the large consumer base.

CONCLUSION

In conclusion I wish to state that a host of the existing contributions and future contributions from Government to the national ICT development require more insightful articulation and consideration to ensure that ICTs can play their appropriate roles in the national development of the country in view of the anticipated roles of ICT in emerging information society and economy.

I thank you for listening and once again thank you for affording me the opportunity to deliver this keynote address.

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