

Africa And the Challenge of Next Generation Networks 2006

Africa's Next Generation Networks 2006



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INTRODUCTION



- **The first six years of the 21st century has continued to witness an upsurge in the application and use of communications and information technology in nearly all aspects of human endeavor.**
- **The wireless revolution, the Pre-paid billing platform and the Internet/IP phenomenon have recently changed the way people live and transact business, and the telecommunications/information technology industry has continued to take center stage in world affairs and will continue to be so far into the foreseeable future.**
- **These revolutionary technologies have changed consumer lifestyles and led to continuous evolution of Next Generation Networks.**

AFRICAN RENNAISANCE



- **In Africa, the story is now more exciting than was the case just a few years ago.**
- **There have been remarkable changes in the installation and uptake of mobile subscriber lines in the last four years with pockets of NGNs deployments in some countries.**
- **Revolution is truly taking place in telecoms in Africa and the continent is becoming the fastest growing region in the world for mobile communications (The ITU)**

AFRICAN RENNAISANCE



- **The wave of Market liberalization sweeping across the world has positively impacted the continent with several countries in Africa opening up to foreign investment in the telecommunications sector.**
- **It is reassuring to note that this fact is now widely acknowledged and that Africa currently represents a most fertile ground for Telecom investment.**
- **Most African countries have embraced market liberalization and there have been a number of success stories, that encouraged others to move in the same direction.**

AFRICAN RENNAISANCE



- **However Africa is still experiencing heavy investment in legacy networks because of the erroneous view that the markets may not be fully ready for adopting Next generation services.**
- **If this trend continues, Africa may not take early advantage of those new technologies.**
- **The responsibility lies heavily on policy makers to ensure that this does not happen.**
- **An admixture of policy enactments, incentives and Regulatory actions will be required in order to fast forward the adoption of NGNs**

NGN Value Proposition



- **Traditional networks offer mass market, basic transport of information between end users, with various value-added capabilities.**
- **While existing services will remain part of traditional service providers' offerings, customer expectations even in Africa are now towards more advanced broadband multimedia and information intensive services of NGN.**

NGN Value Proposition



- **Advantages of NGN**

- Higher efficiency resulting from the sharing of network resources by many user.
- Common platform for all services, Data video & voice convergence
- IP-based terminal equipment ensure end-to-end packet transfer
- Flexibility in pricing, QoS and bandwidth consumption.

NGN Value Proposition



- **NGN will have a big impact on the future of ICTs as networks become converged, of higher speeds and ubiquitous, leading to the emergence of new services.**
- **For African countries, NGN offer a great opportunity to leapfrog to a state-of-the-art broadband multimedia infrastructure.**

NGN Value Proposition for Africa



- **A unified and consistent NGN approach will help reduce costs by eliminating the inefficiencies of current service-specific, proprietary, and non-scalable solutions.**
- **NGN approaches will also reduce the time to market and life-cycle costs of offering new services.**
- **Finally, NGN will enable carriers to deploy advanced services, allowing them to remain competitive as well as expand their capabilities to attract new customers.**

SESSION 2



REGULATORY REQUIREMENT TO FACILITATE NGN DEPLOYMENT IN AFRICA

LESSONS FROM OTHER LANDS



- In the UK the provision of access to broad band connections was important enough to be embodied in government policy. The British Telecom (BT) had announced that all households in the UK would be in reach of broadband connection by 2005.
- Korea's government has consistently promoted the development and use of Information and Communications Technology infrastructures since the mid 1980's. Today South Korea is one of the worlds most advanced users of information technology and boast of highest broadband penetration density in the world.
- China has been growing their ICT networks at an astonishing rate since the past decade and is currently the world's largest telecommunications market, both for fixed and wireless networks.
- US spending on Telecommunications equipment have continued to grow and are estimated to reach \$1 trillion by 2007, up from \$720 billion in 2003.

LESSONS



- **While a number of African countries have recorded immense increases in access to basic telephone services, the more advanced countries are increasing access to new technologies such as broadband internet and NGNs at such an exponential rate.**
- **The world's biggest or "G7" economies are now in the broadband "top ten".**

WE NEED TO ACT NOW



- **There is already a growing broadband divide between Africa and the rest of the world.**
- **There is therefore an urgent need to initiate national policies aimed at promoting ubiquitous broadband and NGN deployment.**
- **We must continue to work hard at narrowing the information gap to make sure that Africa becomes a major knowledge centre in the information age.**

BROADBAND



- **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, E-government, E-education & Distance learning, utility applications etc.**
- **Broadband has the potential to integrate even isolated areas into the national and global economic activity and make businesses more efficient and competitive.**

BARRIERS TO NGN



- **One of the factors that have militated against more rapid roll out of NGN & broadband services in Africa is the inadequacy of transmission infrastructure within and between most African countries.**
- **Typically in many African countries, optic fiber and microwave transmission infrastructure is available to only a limited number of cities.**

BARRIERS TO BB



- **A second factor militating against rapid broadband rollout is the lack of pervasive copper infrastructure in most of our cities, towns and villages.**
- **This makes wide deployment of ADSL impracticable.**

WAY FORWARD



- Access to broadband & NGN connections to be embodied in government policy as priority.
- Support deployment of high capacity national and regional fibre optic backbones to facilitate NGN networks rollout

WAY FORWARD



- **Since we have infrastructure limitations in access networks for fixed line broadband, Africa must encourage the deployment of wireless solutions.**
- **WiFi & Wimax for example enable PDA, laptop and desktop computers to access the internet at high speeds.**
- **Wireless phones today are also able to offer mobile internet access.**
- **Satellite-based wireless broadband also holds great promise as a solution for Africa.**

WAY FOWARD



- Realising that the adoption of broadband & NGN is inescapable even in the short run, regulators must ensure that deployment of NGN services is encouraged.
- It is also important to ensure regulatory actions are taken to facilitate and not discourage deployment of NGN & broadband services.

AVAILABILITY



To make NGN & broadband widely available and affordable in Africa, three drivers can be encouraged:

- **Regulatory action to encourage market liberalization and competition**
- **Policy to encourage BB & NGN deployment**

AVAILABILITY



- **An essential requirement for pervasive NGN & Broadband deployment is that it should be low cost and affordable.**
- **Competition is a prerequisite for innovation and introduction new services such as NGN & Broadband to ensure choice, quality and affordability.**

REGULATORY SUPPORT



Policy & regulatory support will be required in:

- **Licensing operators to provide NGN & broadband**
- **Making spectrum available for wireless BB & NGN as the world moves into the early stages of the “wireless everything revolution.”**
- **Facilitating a healthy & competitive operating environment**

REGULATORY SUPPORT



- Care should be taken to provide the right environment and regulatory structures to attract investors with modern, long-term business perspectives.

CONCLUSIONS



- One of the fundamental priorities for the regulator in Africa today must be to seek to meet the requirements of the consumer for modern, good quality, widely available and affordable services.
- This can be achieved through facilitating an environment for investment and healthy competition

CONCLUSIONS



- NGN approach will help reduce costs by eliminating the inefficiencies of legacy, service-specific, proprietary, and non-scaleable networks

CONCLUSIONS



- For African countries, NGNs offer a great opportunity to leapfrog to a state-of-the-art broadband multimedia infrastructure.
- Government and Policy makers therefore have a key role to play in ensuring that access to NGN & broadband services be embodied in government policy .

END



THANK YOU FOR YOUR ATTENTION

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