Egypt, 02-03 April 2017

Migration Strategy of Developing Countries to Broadband Network and future Networks (NGN, IMT-2020)

Mamadou Oury SAKHO
Guinea (Republic of)

SUMMURY

Telecommunications networks have become fundamental economic and Social infrastructures in the world in general and in developing countries in particular. Network infrastructure is useful to all sectors of the economy;

They have a crucial role in the exchange of goods and services at national and international levels and are the main determinant of the evolution of economic interrelations in a context of rapid technological change and the emergence of a whole new set of new services.

However, in order for the potential of these new network technologies to be realized in developing countries, these technologies will have to converge towards **NGNs (IMT-2020)** and their coverage will be more or less universal.

Introduction

Telecommunication networks are currently experiencing major technological developments in the world. The shift from wire to wireless, which is increasingly being used, is a significant change in itself, particularly in developing countries. The successful transition of these network systems to **NGN** technologies requires an ICT development strategy, understanding critical success factors and changing key performance indicators ("Hard" factors, "Soft" factors).

Migration strategy (Case of Guinea)

The Global Telecommunication sector is characterized by a change in technologies to future networks, NGN, mobile telecommunications computing **(IMT-2020).** Like the developing countries, the Government of the Republic of Guinea, a commitment to large-scale construction of high-speed telecommunications networks

for the bearer of the capacities brought by the landing of **ACE** submarine cable to the citizen where he Is located on the national territory.

To realize this vision, the Government of Guinea adopted in **2010** its National Policy and Strategy for the Development of Information and Communication Technologies **(DPSNTIC),** built around seven (7) strategic axes.

Migration Strategy (Other Cases)

Approximately **23,000 km** of fiber was deployed in Africa between **2010** and **2013.** In **Burundi**, **Rwanda** and **Kenya**, for example, new national fiber ridges have been built and are accessible to all retail operators on a non-discriminatory free access model. In **Tanzania**, a national backbone has been built from fiber already available on the high-voltage power cable and fiber on rail and road infrastructure, while in many other countries, such as **India**, Kenya And in **South Africa**, utilities are selling wholesale fiber capacity to wholesalers.

The **Burundi's** backbone, in a public-private partnership, was used to deploy the national fiber backbone.

Ghana : In July **2006**, the World Bank approved a **$ 40 million** loan to help Ghana create growth and jobs by developing ICTs and public-private partnerships around the following three pillars.

Senegal: With Senegal digital **2020**, the National Strategy for the Development of the Digital Economy, is based on a vision ; Access to broadband internet at affordable costs; Digital spatial planning and digital broadcasting; the development of infrastructure to provide the very high **THD** broadband for **60%** of the population at an affordable price by **2020**.

Ivory Coast: The digital strategy of Côte d'Ivoire is one of the explicit components of the emergence strategy, which is based on a long-term vision, guiding the implementation of three pillars: administration (**e-administration**) (**E-business**), and social **(e-inclusion**),

Mali: Mali has put in place a **Mali Digital 2020** plan, which has made the analog digital transition one of the five-year strengths. The objective is to reorganize, rectify and develop the new information and communication technologies (ICT) sector in "**Plan Mali Digital 2020**.

Liberia: The Liberian Government's digital Strategy is focused on development (**ICT4D**). It proposes to put digital technology and creation of infrastructures, development and promotion of technologies (m-payment, m-health, m-education) and public awareness.

Burkina Faso: In **2014**, the ITU conducted a review of the ten (10) years of implementation of the decisions in Burkina Faso. Support infrastructure is one of the pillars of accelerated growth, with information and communication technologies as one of the sub-components.

Cameroon: The strategy for broadband development in Cameroon can be seen from two angles: Wired and Mobile Infrastructure. Submarine Cables, National Backbone, Urban Optical Loops and Optical Access Networks.

Recommendations: In view of the solutions envisaged for the benefit of the developing countries, for a reliable and judicious migration, we recommend:

In developing countries:

- Establish cyber legislation and an appropriate institutional framework for the implementation of a national strategy for migration to NGN;

- Advocate for a national policy calling on operators to change their networking systems wit a view to achieving full adoption and migration to future networks;
- Encourage the deployment and convergence of IP, broadband networks to next generation "backbone" networks;
- Provide the necessary resources for the deployment and universality of NGNs;
- Fostering competition policy and return on investment;

- Update the economic regulation system of the new telecommunications market, in particular next generation networks;
- Encourage the emergence and innovation of content and application services;
- Produce and facilitate affordable multiservice economic models and the integration of voice communications, data transfer and video;
- Establish an "all-IP" infrastructure and provide FTTH (fiber-to-the-home) network facilities in all urbanization plans;

At the ITU: Provide the necessary support to the developing countries to upgrade their network systems and a successful migration to the new generations by **2020**.

Proposal: We propose to ITU-T an additional question entitled:

"***National Strategy of Developing Countries for the Migration of Network Systems to Future Networks (IMT-2020)***".

Conclusion: The strategy for introducing **NGN (IMT-2020)** technology in developing countries requires a political decision, followed by a commitment by operators, motivated by an objective and transparent regulation of the Telecommunications /ICT sector. In such a context of these developing countries, moving from a set of separate network infrastructures to next generation IP-based networks will be a logical evolution allowing operators

to design new offerings of innovative content and integrated services An interactive, with the aim of maintaining their user base, attracting new users and increasing average revenues per subscriber and consequently the GDP of the different countries.

Migration to these next generation networks to transform core business processes and product offerings from all layers of networks and elements of the overall Architecture will enable operators to save billions year.

THANK YOU