



ITU Telecommunication  
Development Bureau (BDT)

## Report of the ITU Regional Seminar on Costs and Tariffs for the Member States of the Regional Group for Africa (SG3RG-AFR)

Cotonou, Benin, 8 – 9 May 2012

### I. Introduction

The ITU Regional Seminar on Costs and Tariffs, which was organized jointly by the Telecommunication Development Bureau (BDT) and the Telecommunication Standardization Bureau (TSB) in collaboration with the Autorité Transitoire de Régulation des Postes et Télécommunications du Bénin (ATRPT), was held in Cotonou, Benin, on 8 and 9 May 2012 and followed by the meeting of Study Group 3 Regional Group for Africa (SG3RG-AFR).

98 participants from 30 countries took part in the meeting. The complete list of participants is available at: [www.itu.int/ITU-D/finance](http://www.itu.int/ITU-D/finance).

### II. Opening ceremony

The opening ceremony was presided over by Mr Wilfrid Martin, Director of the Minister's Office, representing the Minister of Communications and ICT. With him were: Mr Firmin Djimenou, President of the ATRPT; Mr Makhtar Fall, Head of the Regulatory and Market Environment Division of BDT; and Mr Abossé Akué-Kpakpo, Chairman of SG3RG-AFR.

In his address, Mr Martin thanked the ATRPT and its staff for their excellent work in developing the ICT sector in Benin. The country's active involvement in the meeting attested to the prominent role played by Benin in Africa's ICT sector.

Mr Djimenou welcomed the delegates and thanked them for attending. The ATRPT was pleased and honoured to host the countries of Africa and discuss topics of great current importance with a view to making ICT services available to the public at the lowest possible cost.

Mr Fall, speaking on behalf of the Secretary-General of the International Telecommunication Union and the Directors of TSB and BDT, warmly thanked and paid tribute to the authorities of Benin and the ATRPT for hosting the important ITU events now taking place.

Mr Abossé Akué-Kpakpo thanked the Benin authorities for the facilities that had been made available and commended ITU for making appropriate arrangements to facilitate the participation of the delegates and for making high-level experts available.

### III. Election of seminar officers

The seminar elected the following officers:

- **Chairman:** Mr Romain Abilé Houéhou (ATRPT)
- **Vice-Chairman:** Mr Abossé Akué-Kpakpo (SG3RG-AFR)
- **Rapporteur:** Mr Luc Boko (ATRPT)

#### IV. Adoption of the agenda

Owing to difficulties in connection with the travel arrangements of one of the ITU Experts, the order of sessions 5 and 6 was inverted. The agenda thus amended is available at the ITU website given below.

#### V. Summary of the discussions

All the presentations are available at the ITU website: [www.itu.int/ITU-D/finance](http://www.itu.int/ITU-D/finance).

**V.1 Sessions 1 and 2:** Establishment of Internet exchange points (IXPs) and experiences of countries with international Internet connectivity (IIC).

**Presenter:** Mr Mwangui Michuki

Panelists for country experiences:

- Ms Pauline Tsafak Djoumessi, MPT, Cameroon;
- Mr Marcellin Ilougbade, Executive Secretary, ATRPT Benin;
- Ms Marième Thiam Ndour, MPT, Senegal.

Mr Mwangui Michuki gave a definition of an Internet exchange point (IXP) before describing the current situation with regard to international Internet connectivity in Africa. By the end of 2012, Africa would have a total submarine cable capacity of 25.8 Tbps. There were currently 26 IXPs in Africa of which 20 were operational. There were currently no IXPs in Central Africa. Studies had shown that only 1 per cent of African traffic was made up of local traffic, the remaining 99 per cent being international. In conclusion, he showed that it was now possible in Africa to establish regional IXPs by selecting countries with a number of submarine cable landing points. Examples included Senegal, Egypt, Kenya, Nigeria and South Africa.

- Country experiences of IIC

Presentations were given on the experiences of three countries: Cameroon, Benin and Senegal.

**Ms Pauline Tsafak** presented the situation of Cameroon. She gave an analysis of the Internet access value chain to show the efforts that had been made and the challenges still facing Cameroon and all of Africa in terms of access to international broadband Internet. She also described the experiences of countries such as Chad and Sierra Leone. In her view, lowering IIC costs would depend on a combination of political, regulatory, economic and infrastructure factors at the national, regional and international levels.

The experience of Benin was presented by **Mr Marcellin Ilougbade** of the ATRPT. He presented the current situation with regard to the optical fibre infrastructure in Africa, before focusing on international Internet connectivity in Benin. Lastly he set out the policy for the development of Internet access in Benin and the project for the ACE submarine landing station in Benin in 2012.

**Ms Marième Ndour** of Senegal presented the situation of IIC in Senegal and the roll-out of terrestrial optical fibre systems. At the national level, the available international Internet bandwidth was currently 10 Gbps and the aim was to raise that to 12 Gbps by the end of 2012. In order to reduce costs of Internet access in the country, there were plans to set up IXPs and develop local content.

Mr Fall reported on the study undertaken by two ITU experts on IIC and invited participants to examine the report and submit comments and observations as soon as possible.

Following these presentations, participants made comments and asked questions.

It was noted that setting up an IXP was not expensive. It sufficed for the national stakeholders to agree on the conditions of implementation. In order to set up a local IXP, all that was needed was at least three Internet access providers in a given country. For a regional IXP, on the other hand, a country needed to have a number of submarine cable landing points. In conclusion the seminar adopted recommendations to:

- ensure the development of national backbones and intra-African fibre-optic networks in order to improve connectivity between countries and enhance traffic flows; and

- pursue the creation of national and regional Internet exchange points in order to keep national and regional traffic at the national and regional levels.

## **V.2 Session 3:** Pricing of broadband services

- **Presenter:** Mr Harm Aben, ITU Expert
- Country experience panelist: Mr Franck Dickodet, ATRPT, Benin

Mr Harm Aben, ITU Expert, in his presentation gave some information on broadband pricing, affordability of services and market development, the impact of regulation, the best way to regulate new services, and the definition of pricing policies.

Mr Franck Dickodet then presented the broadband Internet tariffs in force in Benin.

Following the presentations, it was noted that the cost of broadband was still very high in Africa compared to other continents.

The major debate today was not just about mobile telephony but also about broadband. In Africa, it was essential to concentrate efforts on the development of broadband Internet. Those services offered enormous advantages for the public.

ITU took the opportunity to inform participants of a study it had carried out to assist regulators in regulating broadband services. The document, *Regulating broadband prices*, is available on the ITU site: [www.itu.int/ITU-D/treg/broadband/index.html](http://www.itu.int/ITU-D/treg/broadband/index.html).

## **V.3 Session 4:** The impact of social networks

**Presenter:** Mr Makhtar Fall, BDT

The presentation showed that development of broadband had a positive impact on social networks. At the level of the African continent, efforts would be needed to support broadband penetration and facilitate access to terminals. Regulators faced a number of challenges as a result of technological advances and the strong growth of social networks. Participants expressed the view that the mandate of regulators was changing to take account of the new issues in the sector such as the popularity of social networks.

Statements made by participants suggested the need to move on from technical (or traditional) regulation to more flexible and development-oriented regulation.

In conclusion, and in order to facilitate a large-scale deployment of broadband services, it was recommended that countries that had not already done so should draw up and adopt national broadband funding and implementation plans.

## **V.4 Session 5:** Pricing of international roaming services

**Presenters:**

- Mr R. Guellouz, ITU Expert
- Ms Aminata Dramé, Sonatel
- Mr Vikram Raval, GSMA

Mr Guellouz presented the results of the study on roaming in Africa commissioned by the African Union. The presentation showed that roaming in Africa was very expensive. There were unfortunately no adequate data to assess the phenomenon and its impact. The speaker also noted a lack of transparency in setting roaming charges. Factors that complicate the roaming situation in Africa included:

- the range of payments (widely fluctuating exchange rates);
- the difficulty of influencing the high charges.

He noted that the European Union had enacted directives on roaming, a process that had followed from a political and economic decision to establish ground rules, and on that basis identified four management strategies that could improve management of roaming in Africa.

**Ms Aminata Dramé** presented the experience of Sonatel in the area of preferential roaming, a preferential pricing mechanism applied by the operator through the Orange Zone offer. There had been some problems with that offer as a result of surcharges on incoming international calls in Senegal in 2011. The speaker emphasized the difference between a preferential roaming offer and a “one network”.

The presentation by **Mr Vikram Raval** gave an overall view of roaming in Africa, regional challenges for developing the market, market trends and opportunities, the risks of regulation, and a number of recommendations.

The statements made by participants suggested that there was a need for joint discussion in order to find ways of substantially reducing roaming prices in Africa. In the meantime, provisions would be needed to encourage operators to make roaming charges and conditions more transparent for consumers.

Furthermore, it was urgently necessary to reduce roaming costs to a significant degree and to require operators to provide consumers with details of prices and other information on roaming.

#### **V.5 Session 6:** Taxation of telecommunication services / taxation of international incoming traffic

##### Presenters

- Ms Pauline Tsafak Djoumessi, Ministry of ICTs, Cameroon
- Mr Saliou Touré, Sonatel, Senegal
- Mr Vikram Raval, GSMA
- Mr Luc Boko, ATRPT, Benin

All the presentations raised the question of funding the development of telecommunications in developing countries and how to ensure that investors had a good return on their investments while providing affordable services for consumers and maintaining an adequate level of revenue for governments.

A number of different taxes or licensing fees are set by States, the main ones being:

- Telecommunication sector licence fees
- Taxes on incoming international traffic
- Taxes and duties on equipment.

In the view of **Mr Saliou Touré**, imposing taxes and duties in Senegal had led to negative consequences including an increase in the share received together with a substantial drop in traffic volumes.

However, the good news for Senegal was the fact that the Government had just approved a decree abolishing surcharges on incoming international traffic, although the rate of tax on profits now payable by telecom operators had been increased from 25 to 35 per cent.

The presenter concluded with a number of recommendations including the following:

- Operators should be subject to specific requirements regarding network coverage, price reductions, innovative services and measures to support the ICT sector.
- A fiscal policy is needed that will encourage development of ICTs and have more beneficial direct and indirect effects on economies than excessively high taxes, which hold back growth.

The presentation by **Mr Vikram Raval** looked at taxes in the mobile telephone sector and their adverse impact. Reducing those taxes led to an increase in the rate of mobile penetration and brought considerable benefits to the public, the business community and governments. To achieve that goal, governments needed to seek optimal tax rates. In the view of Mr Luc Boko of ATRPT, Benin had established taxes on communications in order to protect the telecommunication industry from negative factors such as:

- the proliferation of illegal operators and “grey channels” not subject to any fiscal control; and
- loss of foreign currency revenues from incoming international calls.

In conclusion the following recommendations were made:

- States should be encouraged to limit taxes on telecommunication services;

- at the regional level the main taxes on telecommunication services should be harmonized;
- operators should be encouraged to pursue investment in networks and services in order to support the development of African economies;
- a fiscal policy was needed to encourage the development of ICTs by ensuring a good return on investment for operators and affordable prices;
- it was important to avoid shifting the costs of taxes on to the end consumer;
- requirements had to be established for operators with regard to network coverage, price reductions and innovative services;
- ITU must continue to study the question of taxation in TSB Study Group 3 and put forward recommendations on best practices.

## **V.6 Session 7 : Number portability / unbundling**

Presenters:

- Mr Yaw Boamah Baafi, NCA, Ghana
- Mr Seyni Malan Fati, ARTP, Senegal

Mr Yaw Boamah Baafi presented the experience of Ghana in the area of number portability. Portability was now established and developing, to the benefit of the sector. The NCA had established an effective regulatory framework in collaboration with all the sector's stakeholders. Participants considered the case of Ghana to be of great interest for other African countries.

Mr Seyni Malan Fati presented the different existing types of unbundling (partial unbundling and total unbundling), and a benchmark on the implementation of unbundling in a number of countries.

Statements by participants and the replies from the presenters reflected the fact that local loop unbundling was crucial to the development of the sector in developing countries such as those in Africa.

## **V.7 Session 8: Economic aspects and costing of NGNs**

Presenter : Mr Harm Aben, ITU Expert

Mr Harm Aben presented the results of a study commissioned by ITU on the economic aspects of NGNs. He noted that there were tools (cost models) for determining the costs of NGN services. With regard to the economic aspects of NGNs, regulation should involve the development of a model based on best practices, such as the "bottom-up LRIC cost models", which would ensure good returns for investors. Regular market analysis was needed and the model had to be adapted accordingly.

## **V.8 Session 9 : Regulation and challenges of VoIP**

Presenter : Mr Abossé Akué-Kpakpo, Chairman of SG3RG-AFR.

The presenter recalled that VoIP meant voice transmission using the Internet protocol (IP), which was also referred to as Internet telephony and took one of three forms, namely, PC to PC, PC to telephone and telephone to telephone. Comparing the switched and IP networks, he argued that only the switched network offered a high level of reliability and voice quality in real time.

The major technical challenges related to:

- quality of service in terms of transmission times, jitter, and echo, which were not always adequately dealt with on the IP network;
- loss of packets in routers in the event of congestion.

Three possible solutions were advocated: definition of classes of service; increasing the bandwidth; and increasing the processing power of routers.

From the economic point of view, one likely consequence of regulation of VoIP was loss of turnover resulting from the accounting rate in the case of fraudulent connection.

In conclusion the speaker presented his own approach to the regulation of VoIP.

Regulation should cover the commercial provision of services to the public. It should not cover PC to PC services, or PC to telephone and telephone to PC. Similarly, provision of the service on a private basis should not be regulated.

The system adopted could involve licensing or formal authorization. All the market stakeholders had to be protected in order to guarantee the development of the sector.

#### **V.9 Session 10:** Preparation for WCIT-12

The final information session was introduced by Mr Fall. The presentation focused on current work at ITU to prepare for the World Conference on International Telecommunications, a major conference which would be held in Dubai from 4 to 14 December 2012. In the absence of the delegate from the UAE, the presentation of common African proposals would take place during the meeting of the tariff group.

#### **V.10 Group discussion and conclusions**

The session included a “round the table” session to hear proposals and suggestions for possible topics for discussion at the next seminar. The main proposals were as follows:

1. The issue of cybersecurity and development of CIRTs
2. Fiscal pressures on the telecommunication sector
3. Internet connectivity: a benchmark for broadband access costs (obtaining the various cost elements for the various offers in each country)
4. The impact of regulation on the telecommunication sector: regulatory pressure
5. The impact of Internet development on the development of voice communications
6. Problems regarding adherence to quality of service by operators in Africa
7. Consumption of IP addresses by Africa
8. Conducting a study on the situation with regard to taxation of telecommunications services in Africa: the study could be endorsed at the next session of the Regional Group
9. Transparency in telecommunication/ICT tariffs among operators in Africa.
10. Possible activities by regulators to ensure access to limited resources – for example, cost-based access to submarine cable systems
11. The role of mobile telephony in ensuring full coverage of a country including the provision of new and innovative services on mobile networks (for example, mobile payments, cash transfers etc.)
12. Separation of incumbent operators into wholesale (“NetCo”) and retail (“RetCo”) companies to facilitate government investment in NGN infrastructures (and investment from other sources such as the World Bank)
13. Initiatives to stimulate demand for broadband services: training, online administration, e-learning, and so on.

ITU indicated that the concerns raised by participants would be addressed through an invitation to submit comments on the discussion forum provided for that purpose on the ITU site, and priority questions would be tabled for consideration in forthcoming Regional Group studies.

#### **VI. Closure**

The next BDT seminar on costs and tariffs together with the SG3RG-AFR meeting was provisionally planned for the first half of 2013 in a country yet to be determined. The group invited Egypt, Burundi and Gabon to consider hosting the event in 2013.

The seminar thanked Mr Romain Abilé Houéhou of ATRPT for his capable chairmanship, thanks to which it had been possible to complete the agenda within the time allowed and with excellent results.

Closing the discussions, Mr Romain Abilé Houéhou thanked all the presenters and especially the ITU Experts for their high-quality presentations over the course of the two-day seminar, and all the seminar participants for their diligence and active participation in the debates.