



**FINAL Report on**  
**ITU/BDT Arab Regional Workshop on**  
**Mobile Roaming: National & International Practices**  
**Khartoum-Sudan, 27-29 October 2015**



## OPENING SESSION:

The ITU Arab Regional Office representative, Eng Mustafa Al Mahdi, on behalf of **the Arab Regional Director, Eng. Ebrahim Al Haddad** welcomed all the participants, moderators and panelists of the workshop. In his opening speech, he highlighted the ITU works and activities in International Mobile Roaming (IMR) and the ITU mandates as a facilitator to bring all players in one platform to exchange practices and thoughts and host debates around IMR.

**Mr Al Mahdi** introduced the works done by ITU in IMR and reminded the participants of the BDT Director initiative “Lets Roam the World”, its objectives and he asked the workshop participants to take part in this global platform and participate in the dialogue and share their thoughts and practices in the international mobile roaming development.

**Mr Al Mahdi** closed his open remarks by encouraging the participants to share their knowledge and experiences on the workshop subject and come up with recommendations that support the global trends of IMR.

NTC Deputy Director General, **Eng. Nadir Gaylani**, in his opening remarks, He welcomed the participants of the workshop and the ITU representative. He highlighted the NTC-Sudan expectations from the workshop and also highlighted the importance of the national roaming in connecting unconnected people in rural areas, shared the infrastructure resources and increased the network coverage level in the country and by the end increased the competition.

Mr Nadir emphasized on the role of the operator’s voice in the workshop and asked them to bring their challenges they faced to workshop for more discussion.



### Session 1: ITU activities and works related to Roaming Issues

The ITU representative, Eng Mustafa Al mahdi presented the ITU works and activities on the IMR. The main points presented in this session included the global development on ICT, ITU Survey on **TARIFF POLICIES on Mobile Roaming, Roaming trends** and some **regulatory options, ITU recommendations on regulatory and business actions** have been presented.

The ITU representative showed the participants how to use the ITU Online Cost Analysis tool.

Some questions raised by the workshop participants were answered and the attendees was very interested in the ITU cost tool and its IMR resources portal.



## Session 2: Roaming Overview

Mrs Milja Hofman, the ITU expert and owner of the company Roamingwise presented an overview of the most important network elements of the GSM architecture and the Call flow of a mobile originated call and a mobile terminated call while roaming. Milja described the steps to be taken to launch a new roaming partner, from the first contact with the roaming partner to signing the launch letter. She described the difference between launching a roaming partner on a bilateral basis, via a Roaming Hub or having a Dual IMSI Solution in place. The last subject of this session was about Roaming Fraud and most

commonly used ways to commit this. The solution to minimize Roaming fraud – NRRTRDE – was described. This solution informs the home network within a 4 hour timeframe about the call behavior of its subscribers.

Mr Adel Darwish commented that there are now quite some providers of multi-IMSI solutions. The providers implement various IMSIs from different countries on its simcard. Users will now be charged local prices when using these networks. Networks could see this as a threat of Roaming (undercuts the roaming on the network) but also as an opportunity (instead of barring roaming people are now calling locally and do not need to buy a separate simcard).



## Session 3: Future Trends of Roaming

Mrs Ruth Munge presented on the future trends of Roaming in her presentation, she stressed the need for partnership to maximize on the over the top services, and share in the profitability of the services. MVNO and Mobile number portability, seem to be a threat where they are not understood. Both services are meant to promote competition and subscriber retention. This gives the MNO opportunity an opportunity to increase the marketing mix and address their customers concerns in an effort to improving quality of customer service.

On MVNO, she recommended that the Regulator need to give guidelines and the implementation procedure for entire process and also



the Regulator need to stand on the timeline for trial and implementation of the MNP. Responsibility matrix of MNP and MVNO for the Regulators and operators were presented.

Mrs Ruth mentioned that the trends towards an internet era and aid that we need not forget the core business and improve the SLA and our offering. The trends are relatively visible from introduction of 3G. Research and partnerships will help prepare the MNOs to offer the services and products that are profitable to customers use at a price that is profitable to operations.



#### Session 4: Arab Regional Group works in ITU - T SG3

Mr Adel Darwish, the representative of Arab regional Group of ITU-T SG3 introduced the mandates and works that is being studied by the ITU-T SG3- Arab regional group on Mobile Roaming.

Adel showed the participants how the member states and sector member could participate and contribute to the works of the SG3.

He highlighted the new trends and areas of study on the SG3 and the ITU D.98 recommendations on roaming prices.

Adel asked the operators to coordinate with their member states to bring their hot issues within the mandates of the SG3 for further investigations and studies by the group.

Attendees from sector member showed their interest to take part and participate in the SG regional group.



## Session 5: National and International Roaming: Opportunities and Challenges

The session was moderated by Mrs Ola Hamdi from NTC-Sudan and presented by Mrs Ruth Munge ITU Expert, Mrs. Shaza Mohammed El- Mamoun (left)- Roaming Manager at Sudatel – Sudani and Miss. Alaa Ali Elhussain -Roaming Manager at MTN Sudan.

The session gives an overview about roaming service history in

Sudan from different perspective the establishment, improvement as well as the current situation.

In the session speakers also mentioning the roaming challenges in Sudan and the proposed solution for it, requesting support and guidance from ITU and GSMA to treat and solve some of these challenges.

They are also listed a lot of recommendations which could improve roaming business in Sudan and in the region and make it more profitable.

LTE Roaming, WiFi roaming and OTT service generally had been discussed in the session and how we could make digital services in our favor from roaming point of view.

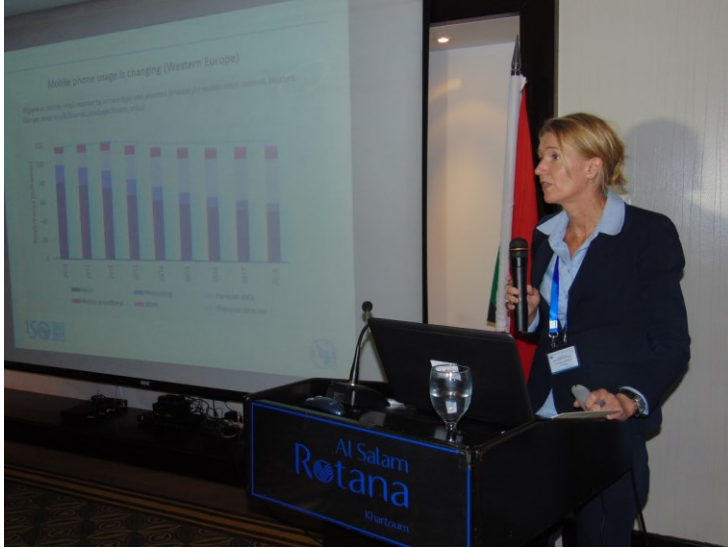
In addition, Sudan MNOs suggest that GCC initiative especially to be introduced as Arab regional initiative and offering Sudan good prices for roaming.

ITU and GSMA expressed their acceptance on all suggestion and recommendations presented by Sudan operators and promised to support Sudan to override and surpass their existing challenges.

Mrs Ruth Munge ITU Expert. In her comments she saw the national roaming as an opportunity for the host and the hosted MNOs. With clear guidelines on the implementation and commercials, the MNOs will maximize their infrastructure use profitably.

She emphasized on the role of ITU to work with the Arab LDCs in this issue. There are more opportunities in national roaming than double infrastructure investment. The cost of investment and maintaining the infrastructure is not likely to be recovered in the next 50 years or there about.

Ruth highlighted the challenges that face the Arab LDCs. She mentioned the absent of clear guidelines and training for the technical and commercial teams will help combat the issue of roaming. Challenges experienced by other service providers will not be the same to be experienced in Sudan. Key learnings from the already established national roaming, will act as guidelines for the implementation in Sudan.



### Session 6: Commercial considerations of Mobile Roaming

Mrs Milja Hofman, the ITU expert and owner of the company Roaming wise, gave an overview of what are wholesale costs (IOT) and retail prices. Examples were given from various retail pricing options (Mark-up / Zones / Bundle) and how this affects customer perception. Zones are transparent to subscribers whereas mark-up is very in transparent. The structure of roaming costs were given, including the IOT, the transit carrier costs and the termination costs.

Shortly an overview was given on the EU Roaming Regulation and the impact it had to European operators, with KPN Netherlands as an example.



### Session 7: The Role of Regulators

The session headed by Eng. Mustafa Al Mahdi- ITU-ARO. In his introductory remarks, he asked the speakers from Kenya Telecommunications Authority (KA), Mr Lukas and Mrs Zainab, From NTC- Sudan to show the participants their authorities roles on Mobile Roaming.

Mr Lukas, mentioned that the regulator underscored the fact that roaming was a multi-country issue and that there is no guarantee that unilateral action by one national

regulatory authority in its country will on its own lead to reciprocal action in other countries . Further, it emphasized on the importance of cooperation between regulators and policy makers either bilaterally or within a region.

On the decision making process by regulatory Authorities, Mr Lukas was recommended that the following steps be undertaken: Collection of data from operator e.g using questionnaires; Analysis of data; Consideration or available regulatory options; Stakeholders consultations; Actual decision making and Periodic post implementation analysis.

Mr Lukas he put forward possible options that regulators may choose from and intervene in the roaming market. These include removing barriers which may cause high input costs of IMR e.g.

remove SIIT, monopolies on international gateways; Empowering consumers; Put in place swift complaint resolution framework; Sharing of information with other regulators; Introduction of various types of roaming alternatives/substitutes e.g MVNO's ; and Access to free local emergency services.

Mrs Zainab, highlighted the NTC trends towards regulating the national roaming and NTC policy for protecting the subscribers.



### Session 8: Data Roaming / Protecting & Empowering Subscribers

Mrs Milja Hofman, the ITU expert and owner of the company Roaming wise, showed an overview of the most important network elements of GPRS, UMTS and LTE and how networks are connected for roaming. Milja showed steps for operators to provide information to subscribers to manage use of communication while roaming. One was

transparency of retail roaming charges and the second was information requirements to diminish chance of "bill shock".



### Session 9: The Role of Regional and International Organizations/Communities

Eng. Mohammed Tangasawi from ZAIN-Sudan chaired this session. He introduced the session panelist and gave 7 minutes for each speakers to present his/her initiative and roles of his/her entities on IMR.

**Mr Lukas** (second person from left in the photo) presented the **One Network Area (ONA)** initiative within the East African Community (**EAC**), the decision making process and pertinent issues surrounding its implementation. From the presentation, and based on the evidence presented on increase in traffic, it was recommended that operators might need to consider the possibility of maximizing on volumes instead of maximizing on margins in IMR.



**Roam Like Home (RLH) of MTN** was presented by Eng. Abd Allah (on the right of the photo), from MTN-Sudan. it is a new MTN offering launched in March 2013 which gives all MTN customers roaming across the MTN networks (22 Networks ) great international roaming rates.

RLH means you can now surf, download and SMS at the same low rates that you would get at home. You can now also make voice calls at reduced rates while roaming—phone home and within the MTN operating countries without paying a fortune. That means no more bill shock, no more searching for Wi-Fi and no more having to swap your SIM card. Use your SIM card wherever your travels take you, anywhere in the MTN network.

**Mr Vikram** (on the middle of the photo), **GSMA representative** presented the industry approach on the IMR regulation, the challenges and the international approaches on IMR.

Mr Vikram mentioned that the retail transparency is important for all players on the field and price regulation is not appropriate, as the market is delivering many new solutions.

He emphasized on the role of government on price regulation and he mentioned that the costs and benefits of regulation must be carefully assessed, taking into account unique economic factors, all of which have an impact on IMR prices such as, national variances in income, taxes, mobile penetration rate , exchange rates..etc. he reminded the participants of the ITR outcomes on IMR and the ITU D.98 recommendations on roaming prices.

Mr Vikram concluded his presentation by encouraging the cooperation and collaboration between public and private sectors.

**Mr Adel Dariwsh** (second person from right in the photo), **GCC Roaming Working Group Chair**, presented the GCC initiative on Mobile Roaming and the steps and process taken to harmonize and regulate the IMR in GCC region.

Attendees supported the GCC initiative and recommended to widen the model in the Arab region via the League of Arab States towards a regional guideline on IMR.

**Ms Enas** (on the left of the photo) from **ZAIN-Sudan** presented the **One ZAIN Network experience**. She highlighted ZAIN recognition of ZAIN as a New Telecoms Service of the Year” recognizes One Network, the world’s first borderless mobile network (Telecom service of the year Comms MEA award 2007)

She mentioned that Zain Realized that; The World is becoming a global market place, people do not want to be out of touch when they travel, communication is extremely important for cross border business, trade, and security and Zain’s customers deserve the most innovative, convenient, affordable, and friendly services.



## Session10: Recommendations, Conclusion and closing

The ITU representative, Eng Mustafa Al Mahdi moderated the session. He wrap-up the workshop and presented the main points discussed during the days of the workshop and he asked all speakers of the workshop to present their main outcomes from the sessions they have presented. As result, the participants along with workshop speakers come up with following thoughts and recommendations:

1. The workshop participants agreed that there is need for national, regional and international cooperation for sharing the best practices of IMR.
2. The participants agreed that the OTT would stop being viewed as a threat but as an opportunity.
3. Participants highlighted that the national roaming should be tackled at national level to promote the competition and connect unconnected people;
4. There is a high demand for National guidelines on National Roaming, MVNO and MNP, and need to be shared between ITU and its members.
5. Training on IMR is needed for ITU members
6. It is very important to stress the need for teamwork between the Regulator and Partner operators.
7. The issue of Sanction was highlighted as one of the main barrier to the operators working in countries that under EMBARGO. There are recommendations that can help the live roaming partners commit to the owing amounts and confirm continuity on the roaming business (International level).
8. Regulators should be knowledgeable on the roaming business, its costs structures, what is involved in the roaming business and be in close conversation with the operators.
9. Operators should make sure they provide information about pricing on their website, offer transparent pricing models (regional zones, bundle) and take measures to avoid bill shock. In addition, they should look at different end-user pricing structures and estimate what lowering of pricing can do to revenues, considering elasticity.
10. Regulators and operators should work together to come to a pricing strategy, which is reasonable and transparent for consumers on one side and reasonable on the margins for operators on the other side.

**NTC Deputy Director General, Eng. Nadir Gaylani closed the workshop.** Mr Gaylani thanks the participants, the national committee working in the organization of the workshop, workshop speakers and the ITU for their kind contributions to the debatable discussion in the Mobile Romaing.

**Mr Gaylani** assured their highest consideration to the workshop recommendations and outcomes.