

Seventh SG13 Regional Workshop on "Standardization of future networks towards building a better connected Africa"

Abuja, Nigeria, 3-4 February 2020



Takeaways and Conclusions

1. **IMT 2020 promises to improve significantly from IMT-Advance.**
2. **E- Government will lead to decentralization of Governance.**
3. **It is anticipated that the circle of technology will change from 10 to 5 years and we need to be ready to embrace this.**
4. **African countries should identify spectrum for 5G trial**
5. **There are challenges in the applications of ML from the use cases. However, adequate support will lead to better participation from the academia.**
6. **There should be active participation in ITU programs. Examples are the ITU BSG Program**
7. **Host some international meetings workshops on IMT 2020 in Africa**

Suggestions to SG13RG-AFR

- **The pursuit for 5G should continue because 5G is realisable.**
- **There are African challenges in applying ML due to lack of standardized data sets. Focus should be given to standardization of datasets.**
- **Pick up use cases for AI/ML in accordance with ITU-T specified format**



Takeaways and Conclusions

1. Emerging needs leading to requirements for new applications, services and networks driven by new technologies
2. Standards development lags technology advancement
3. Trust is an important aspect of existing networks and will be a critical aspect in the networks of the future
4. Gaps identified in 5G technologies is being addressed in the drive towards Network 2030
5. Decentralised trustable network infrastructure and intrinsic security is expected for Network 2030
6. Latency/ Timing / synchronization is critical in delivery of the use cases of Network 2030
7. New functionalities are required in transport networks to support new use cases supported by Network 2030
8. There will be an explosion of interconnected devices by year 2030 and beyond leading to the requirement of new technologies and networks to support these.

Suggestions to SG13RG-AFR

- Identification of applicable performance targets for Network 2030 and proposals on how to measure them
- What are the drawbacks in 4G deployments that may be addressed with 5G network deployment
- What are the potential drawbacks with the deployment of 5G networks and how can these be addressed in Network 2030 in Africa
- Members of SG13 in different African countries need to actively encourage and support the effective participation from academia and industry in the work of SG13
- There is the need to effectively engage stakeholders to increase the number and quality of research on technologies and assessment of use cases for future networks taking cognizance of the African scenario



Takeaways and Conclusions

1. Different use cases for 5G requires diverse and conflicting requirements
2. Network slicing, densification and multi-cell joint processing in 5G enables QoS to be assured for every service
3. Low internet penetration in Africa pose a challenge with widespread accrual of benefits and digital literacy
4. Trust and security is a critical factor in technology adoption
5. Absence of data governance mechanism across several African countries is a challenge
6. Trust is critical in driving usage of online services delivered via cloud computing and Big data / telecommunications networks for example
7. Technology convergence is giving rise to new possibilities in terms of service delivery and new challenges in terms of trust

Suggestions to SG13RG-AFR

- Drive discussions on building capacity in security and trust aspects of networks in Africa countries
- Actively drive and support the participation of academia and industry in trust study items of ITU-T
- Members of SG13RG-AFR should actively drive the implementation of already approved recommendations on Trust in their networks
- Encourage enlightenment campaigns in different African countries on the importance of basic safe online usage practices
- Collaborate with SG12-AFR on QoS measurement and monitoring mechanisms in African countries for both current and future networks



Session 4: Standardization Hot Topics 4, Cloud Computing and Big Data

Takeaways and Conclusions

1. There are big data opportunities in Agriculture, Banking & Insurance, Intelligent Transportation, government services and ICT. These opportunities should be tapped by developing countries
2. Developing countries should take note of the various challenges to leveraging and managing big data in their environments (regulatory, infrastructure & cost related etc) and address them.
3. We should develop a big data strategic plan for our respective countries
4. Government regulation and enforcement can result in an increase in cloud services uptake. Cloud / Data Center resources exist in some African countries
5. A greater level of stakeholder collaboration is required for heavier cloud adoption in the ecosystem
6. ITU members from developing countries should submit contributions to the Q5.

Suggestions to SG13RG-AFR

- ITU should provide guidance to developing countries on how to develop big data strategic plans
- Regional bodies should push for policies to be developed for cloud services use due to the low adoption level



Session 5: Machine Learning and AI

Takeaways and Conclusions

1. Participation in standard making processes by African countries is poor.
2. There are immense benefit in standardization which can help Africa leapfrog into the future networks
3. African countries should establish national standardization secretariats
4. Achievements of Q20/13 shows participation of developing countries leads to a lot of opportunities
5. African countries are not participating enough in ML/AI work at ITU.
6. Members were admonished to ensure participation of the right people.
7. There should be more mentorship programs
8. Develop National AI plans just as obtainable in Tunisia

Suggestions to SG13RG-AFR

- They should encourage members to take advantage of the ITU guidelines in setting up National Secretariats.
- Explore ways of bringing some ML/Ai activities to Africa.
- Call on African countries to take up AI/MI challenges
- Aid in developing more use cases to listed for inclusion.
- Localization of AI/ML to African languages
- Adoption of Ethics and standards that best reflect African peculiarities.



Session 6: Experiences & Successful Stories from Africa

Takeaways and Conclusions

1. **SMART AFRICA** aims to digitize Africa
2. All other continents are coming together on 5G but Africa has not yet come together
3. Cross-Regional Arrangements and collaborations to facilitate 5G Rollout are going on
4. Nigerian Government has developed Initiatives towards Digital Economy
5. Ghana has started implementing smart technologies in some of its operations
6. Zambia has set up a very inclusive process of standardization with a lot of inter country agency collaboration

Suggestions to SG13RG-AFR

- WTSA has a support Resolution on SMART AFRICA, SG 13 needs to draw out important actions to promote standardization
- Standardization collaborations are a must in standardization development.
- SG 13 should continue the support to incubation and small deployments
- SG 13 should support the efforts of country standardization set up

