



**INTERNET INFRASTRUCTURE FOR AN AFRICAN
DIGITAL ECONOMY MEETING
5 – 7 MARCH 2012, OUAGADOUGOU, BURKINA
FASO**

Meeting Report

The Splendid Hotel, Ouagadougou Burkina Faso

5-7 March 2012

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List of Acronyms

| | |
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| AfGWG | African Government Working Group |
| AfNOG | Africa Network Operators Group |
| AfriNIC | African Network Information Centre |
| AfTLD | Africa Top Level Domains Organization |
| ATU | Africa Telecommunications Union |
| CCK | Communications Commission of Kenya |
| CERT | Computer Emergency Response Team |
| CIRT | Computer Incident Response Team |
| CSIRT | Computer Security Incidence Response Team |
| DNS | Domain Name System |
| ICANN | Internet Corporation for Assigned Names and Numbers |
| ICTs | Information Communication Technology |
| IDN | Internationalized Domain Names |
| ISOC | Internet Society |
| ITU | International Telecommunication Union |
| NTRA | National Telecommunications Regulatory Authority |
| TESPOK | Telecommunication Service Providers Association of Kenya |

1.0 Introduction

This report presents the proceedings from a meeting on *“Internet Infrastructure for an African Digital Economy”* held at the Splendid Hotel, Ouagadougou, Burkina Faso, from 5th to 7th March 2012. The meeting was organized by the Africa Telecommunications Union (ATU) with the support of the African Network Information Centre (AfriNIC), the Internet Society (ISOC) and the Internet Corporation for Assigned Names and Numbers (ICANN) and was hosted by the Government of Burkina Faso.

Workshop participants were drawn mainly from the ATU membership, industry, academia and the civil society, among other Information and Communication Technology (ICT) stakeholders.

The meeting was organized around the following key thematic areas:

- Internet Governance and Management;
- Internet Number Resource Management;
- Internet Domain Name Management;
- Interconnection and Internet Traffic Exchange;
- Internet Security; and
- Local Content.

There was also an informational session of the upcoming 2012 World Congress on Information Technology (WCIT).

1.1 Objectives of the Meeting

The meeting brought together organizations involved in development and expansion of the African Digital space and stakeholders to take stock of the progress the continent has made with regard to its digital agenda and explore the requirements for ensuring the continent enhances its digital economy while competing effectively in the present digital economy.

1.2 Welcome Remarks

Welcome Remarks by Mr. Abdoukarim Soumaila the ATU Secretary General

The ATU Secretary General Mr. Abdoukarim Soumaila welcomed the delegates and thanked the sponsors and the Government of Burkina Faso for hosting the meeting. He encouraged participants to actively participate in the meeting noting that broadband access was still a challenge in Africa.

He informed participants that the meeting was a follow up to the one held in 2009 in Mauritius. He gave an overview of the workshop programme and wished delegates fruitful deliberations.

Welcome Remarks by Ms. Anne Rachel Inne, ICANN Manager of Regional Relations for Africa

Ms. Anne Rachel thanked ATU for organizing the meeting and emphasized on the need to continue laying foundations for the knowledge economy. She stressed the need for Africa to develop ways of enhancing Internet security given the paramount role the Internet plays in the development of a digital economy. She also gave an overview of the role of ICANN, especially in the management of global Internet resources.

Welcome Remarks by the Dr. Dawit Bekele, Director of the ISOC Africa Regional Bureau

Dr. Dawit Bekele gave a background of ISOC and an overview of Internet growth noting that there were 2 billion Internet users globally with only 12.8% of that from Africa. He however noted some of Africa's contribution to the development of both the African and global Internet ecosystem citing the deployment of undersea fibre optic cables around the continent and the development of applications that have changed lives such as mobile money transfer, noting that the open nature of the Internet had contributed immensely to innovation.

Dr. Bekele stressed on the need for multi-stakeholder engagement in the development of the Internet and thanked ATU for organizing the meeting.

Welcome Remarks by Adiel Akplogan, CEO AfrinIC

Mr. Adiel Akplogan appreciated ATU for organizing the meeting and cited the need to frequently hold such multi-stakeholder forums. He stressed on the need to adopt a multistakeholder approach in the development of the Internet and the need to dismantle any potential barriers towards this end. He noted that the Internet was key to the development of Africa and encouraged participants to actively participate in the deliberations and endeavour to implement the outcomes of the meeting.

Keynote Speech by Mr Joachim D. Meda, Secretary General of Burkina Faso's Ministry of Transport and Communication on behalf of the Minister for Transport and Communication

Mr Joachim Meda thanked ATU for organizing the meeting.

He acknowledged the challenges being faced by the African continent and stressed that the topics being discussed were timely, noting that ICTs were a foundation for socio-economic development in any economy. He noted the challenges in ICT governance and the need for multi-stakeholder participation.

He gave an overview of some of the accomplishments of the Government of Burkina Faso in ICT including the implementation of a Judicial framework for ICT governance and a bill for Intellectual access.

He encouraged participants to be open and transparent in the meeting discussions.

2.0 Summary of Thematic Sessions

Session I: An Introduction to Internet Governance

The session was moderated by Prof. Nii Quaynor and composed of the following panelists:

- Anne Rachel, ICANN
- Dawit Bekele, ISOC
- Abossé Akue-Kpakpo, UEMOA

The introductory session sought to give an overview of the various Internet Governance and Management institutions and the role each has played in the development of the Internet.

During the presentations and deliberations, it came out that the Internet has evolved over the last 20 years from an academic network to a network that is now a key pillar in global socio-economic development.

The importance of the open nature and multi-stakeholder model of the Internet also came out with speakers citing various Internet governance multi stakeholder platforms including the World Summit on the Information Society (WSIS), the United Nations Internet Governance Forum (UN-IGF), ICANN, ISOC, AfriNIC at the regional level and the Diplo Foundation for capacity building, among others.

The role of the Internet Engineering Taskforce (IETF) and the importance of Internet standards as a means of ensuring that there was no ambiguity at the technical level was also discussed. As such, it was agreed that there was need for Africa to participate in the IETF activities given that participation is open with low requirements.

It also came out that Internet growth was relatively low in Africa though the growth in the mobile subscriber base was exponential, bringing out the importance of the GSM in the development of the Internet in Africa.

Participants also agreed on the need to support local Internet domains and encourage the use of local languages in the development of local content.

Session II: Internet Governance Institutions and the role of various Stakeholders

The session was moderated by Prof. Nii Quaynor and composed of the following panelists:

- Ali Drissa Badiel, ITU
- Pierre Dandjinou, AfricaCERT
- Prof. Nii Quaynor, Af*
- Adiel Akplogan, AfriNIC/AfGWG

This session brought out the mandate and structure of various Internet governance institutions.

The session discussed various institutions including the ITU, Internet governance processes such as the WSIS and the UN-IGF, and various African institutions including AfriNIC, AfNOG, AAU, ICANN noting that some were virtual. The role of the AfGGW as a platform for governments to dialogue of African Internet policy was also discussed.

Participants agreed on the need for increased and enhanced African participation in local, regional and international forums and initiatives.

Session III: Overview of Internet Number Resources

The session was moderated by Mr. Mark Elkins and composed of the following panelists:

- Fiona Asonga, TESPOK
- Adiel Akplogan, AfriNIC/AfGGW
- Ali Drissa Badiel, ITU
- Hisham Ibrahim, IPv6 Program, AfriNIC
- Haitham El Nakhal NTRA and Egypt IPv6 Taskforce
- Mariem Thiem Ndour, Ministry of Posts Telecommunications and ICT Senegal

This session gave an overview of global and regional Internet number resources management including both the global and regional policy development process and the role of various stakeholders.

Participants were informed that the Internet Number resource management policy development process was open to any interested stakeholder and founded on the principles of openness, transparency and a bottom-up approach. It also came out that both IPv4 and IPv6 can co-exist and that majority of computer operating systems and applications were already IPv6 ready. It was agreed that there was need for business case to drive the adoption of IPv6.

Participants agreed that there was need to facilitate the growth of Internet Protocol (IP) networks through the development of appropriate policies at all levels, targeted capacity building amongst policy makers, the technical community and academia through the deployment of IPv6 research testbeds, and the deployment of DNS Root servers within Africa.

Session IV Internet Domain Names

The session was moderated by Mr. Emmanuel Adjovi and composed of the following panelists:

- Anne Rachel, ICANN
- Mark Elkins, ZADNA
- Kadjo Tanon Lambert, NIC CI
- Barrack Otieno, AfTLD

The session covered the management of the Domain Name System (DNS) and the roles of various stakeholders.

The session brought out some of the challenges in Internet governance especially in the adequacy of stakeholder representation and the difficulty in accommodating the views of all stakeholders.

Participants were informed that IDNs were introduced to cater for non-latin scripts and that this had opened up the Internet.

With regards to registry management, participants were informed that the Registry-Registrar-Registrant management model was quite popular. Participants were also encouraged to develop Alternative Dispute Resolution Policies (ADRP) for the registry in order to customize dispute resolution processes to their needs.

Participants were informed of the role of the AfTLD as a regional forum for African ccTLD managers to build capacity through sharing knowledge and experience and training.

Session V Interconnection and Internet Traffic Exchange

The session was moderated by Prof. Nii Quaynor and composed of the following panelists:

- Michuki Mwangi, ISOC
- Abossé Akue-Kpakpo, ITU Study Group 3
- Kadjo Tanon Lambert, NIC CI

The session covered the role and value of Internet eXchange Points (IXPs), emerging issues in the IXP space and the roles of various stakeholders.

The session brought out the Internet transit deficit noting many African countries did not have IXP and that only about 1% of the content consumed in Africa is generated from within, making Africa more of a content consumer. Participants agreed that there was need to reverse this ratio.

Participants were informed about ITU's initiatives in the development of rules for international Internet connection and infrastructure sharing as well as related legal instruments. Participants agreed that there was need to harmonize interconnection frameworks as this would reduce the cost of access.

It was agreed that governments should support the establishment of national and regional IXPs as a key infrastructure for enhancing access to Internet services.

Session VI Internet Security

The session was moderated by Pierre Dandjinou and composed of the following panelists:

- Ali Drissa Badiel, ITU
- Pierre Dandjinou, AfricaCERT
- Haitham El Nakhil NTRA
- Vincent Ngundi, CCK

The session gave an overview of information security with a focus on global threats and model cybersecurity management frameworks including the role of various stakeholders.

Participants were given an overview of current global cyber threats noting that the annual turnover from the cyber crime industry was more than a trillion US dollars (USD 1 trillion).

It also came out that attackers were now targeting mobile devices given their popularity. The GSM is the largest network in the world with about 5.9 billion subscribers out of a world population of 7 billion (about 87%).

Participants were informed of ITU's cyber security initiatives under its Global Cybersecurity Agenda (GCA) including the International Multilateral Partnership Against Cyber Threats (IMPACT) under which the ITU is assisting its Member States in the establishment of national CIRTs and the Memorandum of Understanding (MoU) with the United Nations Office on Drugs and Crime (UNODC).

Participants agreed that there was need to harmonize cyber security management frameworks at the policy, legal and technical levels, need to create awareness at all levels, multi stakeholder involvement, regional collaboration and research and development in information security.

Session VII Local Content

The session was moderated by Mme. Ouattara/Sanon Hadja Fatimata and composed of the following panelists:

- Anne Rachel, ICANN
- Mark Elkins, ZADNA
- Emmanuel Adjovi, OIF
- Dawit Bekele, ISOC

The session brought out the opportunities and challenges presented by local content both regionally and globally and the role of various actors in the development of local content.

Participants were informed of the need to develop local content in local languages using local domains and hosting the content locally in order to reverse the Internet traffic deficit thus making Africa more of a content producer than consumer. The key role of governments in local content development also came out.

A study was presented on local content and the developing world citing some of the challenges as being low Internet penetration and limited broadband access, the high cost of Internet access, lack of technical and business skills, inadequate local hosting services, inadequate infrastructure and inadequate policy, legal and regulatory frameworks.

Participants agreed that there was need and value in the development of a local content framework.

Session VIII Informational Session on WCIT-12

The session was a brief of the WCIT-12 as follows:

The ITU World Telecommunications Standardization Assembly (WTSA-12) and the World Conference on International telecommunications (WCIT-12) will be held in Dubai, United Arab Emirates from 20-29 November, 2012 and 3-14 December, 2012 respectively. Africa has held its first preparatory meeting for the two events spearheaded by ATU and the 2nd preparatory meeting is scheduled for May 2012 in Durban, South Africa.

The purpose of these meetings is to among other things re-elect or elect Chairmen and vice chairmen of the various study groups of the ITU Standardization sector (ITU-T) for the period 2013-2016. The Conference will also review the International Telecommunications Regulations (ITRs) that were last reviewed in 1988.

ITU in 2010 during the Plenipotentiary Conference in Guadalajara established a Council Working Group for WCIT. The group (CWG-WCIT) has held six meetings to-date to prepare substantive proposals for adoption during the conference.

The Ouagadougou meeting encouraged participants to take an active part in the discussions and particularly in attending the preparatory meetings in order to forge forward issues of interest to the continent.

3.0 Closing Remarks

The ATU Secretary General Mr. Abdoukarim Soumaila thanked the speakers for their insightful presentations and the delegates for their active participation. He confirmed ATU's commitment to organizing similar meetings in future and promised to make the meeting an annual event.

Mr. Soumaila once again thanked the sponsors and the Government of Burkina Faso for hosting the meeting.

Appendix I: Recommendations

| <p style="text-align: center;">INTERNET INFRASTRUCTURE FOR AN AFRICAN DIGITAL ECONOMY 5-7 MARCH 2012</p> | <p style="text-align: center;">INFRASTRUCTURES INTERNET POUR UNE ECONOMIE NUMERIQUE EN AFRIQUE 5 – 7 MARS 2012</p> |
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| <p>We, the participants, assembled in Ouagadougou, Burkina Faso, from 5-7 March 2012, for the meeting on Internet Infrastructure for an African Digital Economy organized by the African Telecommunication Union (ATU),</p> <p>Recalling that the growth and development of the Internet has been founded on its open nature and multi-stakeholder model of management,</p> <p>Recognizing the role of the Internet in global socio-economic development,</p> <p>Recognizing the facilitatory role of governments in the growth and development of the Internet through creating an enabling environment and developing public policies that contribute to the multi-stakeholder governance of the Internet at the local and international levels,</p> <p>Agreeing that African countries should jointly aim to achieve the 70% local and regional, against 30% International Internet traffic by 2020 as a key milestone to an African digital economy,</p> <p>Agreeing that African countries should put in place measures that will enhance the development of the Internet infrastructure as a key element for the development of the African digital economy including capacity building,</p> <p>Resolve as follows:</p> <ol style="list-style-type: none"> 1. To promote the multi-stakeholder model in the global and local management of the Internet including in the local management of country code Top Level Domains | <p>Nous, participants, réunis à Ouagadougou, Burkina Faso, du 5 au 7 mars 2012, dans le cadre de l'atelier sur l'Infrastructure Internet pour une économie numérique en Afrique, organisé par l'Union Africaine des Télécommunications (UAT);</p> <p>Rappelant que la croissance et le développement de l'Internet sont fondés sur sa nature « Ouverte » et son modèle de gestion multipartite ;</p> <p>Reconnaissant le rôle de l'Internet dans la croissance socio-économique globale;</p> <p>Reconnaissant le rôle de facilitateur des gouvernements dans la croissance et le développement de l'Internet en créant un environnement favorable et l'élaboration de politiques publiques qui contribuent à la gouvernance par les multi-parties prenantes de l'Internet aux niveaux local et international,</p> <p>D'accord sur la nécessité des pays africains à atteindre l'objectif de 70% du trafic Internet au niveau local et régional d'ici à 2020 entre 30% à l'international, comme clé pour une économie en Afrique.</p> <p>D'accord sur la nécessité pour les pays africains de mettre en place les mesures d'amélioration/ d'accélération du développement de l'Internet comme infrastructure clé pour le développement d'une économie numérique en Afrique;</p> <p>Formulons les recommandations ci-après :</p> <ol style="list-style-type: none"> 1. Promouvoir le modèle multipartite dans la gestion globale de l'Internet y compris dans la gestion locale du nom de domaine de premier niveau du pays (ccTLD), |

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| <p>(ccTLDs),</p> <ol style="list-style-type: none"> 2. To participate fully in local, regional and global Internet governance activities and promote local multi stakeholder organization around questions related to all global meetings in telecommunications and ICTs, 3. To promote the development of ccTLDs and their local use and as well as that of the soon to come regional Top Level Domain (TLDs) dot Africa, 4. To put in place measures that enhance Internet infrastructure and access including: <ul style="list-style-type: none"> • an enabling policy and regulation environment, • the participation in Internet standards development at global, regional as well national level, • the establishment of national and regional Internet Exchange Points (IXPs) and DNS root server instances, • the deployment of secured DNS on country level Domain Systems ccTLD DNS infrastructure, • working with local stakeholders to develop and implement Internet Protocol version 6 (IPv6) adoption roadmap at national and regional level as well as supporting related initiatives, • support efforts to create national and regional digital certification authorities, 5. To develop and implement a national cybersecurity framework to facilitate the provision of advice and awareness on cyber security matters and to enhance response to cybersecurity incidents at the national level in collaboration and cooperation with relevant local, regional and global actors of | <ol style="list-style-type: none"> 2. Participer pleinement aux activités sur la gouvernance de l'Internet au niveau local, régional et global et promouvoir la consultation de tous les acteurs au niveau local autour des questions concernant les TIC. 3. Promouvoir le développement des ccTLD, de leur utilisation au niveau local ainsi que l'utilisation du nom de domaine de premier niveau à venir : le « point Africa », 4. Mettre en place des mesures d'amélioration de l'infrastructure Internet et de l'accès à cette infrastructure, y compris: <ul style="list-style-type: none"> • Un environnement politique et réglementaire favorable; • La participation au développement des normes Internet au niveau global, régional et national; • l'établissement de points d'échange Internet (IXP) et d'instances de serveurs racine à l'échelle nationale et régionale; • le déploiement du système de sécurité des noms de domaine (DNSSEC) à tous les niveaux; • travailler avec tous les acteurs pour développer et implémenter du Protocol Internet version 6 (IPv6) au niveau national et régional incluant le soutien aux activités y relatives; • le déploiement d'efforts pour la création d'agences de certification au niveau national ou régional, 5. Développer et implémenter un cadre national pour la cybersécurité afin de faciliter la provision de conseils ; susciter une réponse locale avertie sur les questions de cybersécurité et améliorer la réponse aux incidents de cybersécurité en collaboration et en coopération avec les |
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| <p>the sector,</p> <ol style="list-style-type: none"> 6. To improve national and regional measures to boost African Intellectual Property (IP) protection including improved participation in WIPO's Committee on Development and Intellectual Property (CDIP), for the preservation of our geographic, heritage names, and traditional knowledge, 7. To put in place measures that support the development of local content including an enabling legal environment, enhancing the local Internet infrastructure to support access and hosting of content locally, 8. To promote the use of local languages and Internationalized Domain Names (IDNs) in the development and hosting of local content as a way of reaching local populations and preserving local culture, 9. To promote the establishment of data centers and related infrastructure locally, 10. To improve participation and contribution from governments to local, regional and global Institutions and initiatives that are currently addressing the management of the African and global Internet infrastructure such as the African Network Information Centre (AfriNIC) and its Government Working Group (AfGWG), the AfricaCERT initiative, the Africa Network Operators Group (AfNOG), the Africa Top Level Domains Organization (AfTLD), the Internet Society (ISOC), the African Telecommunications Union (ATU), the International Telecommunication Union (ITU), the Internet Corporation for Assigned Names and Numbers (ICANN) and any relevant others, | <p>acteurs compétents du secteur au niveau local, régional et global,</p> <ol style="list-style-type: none"> 6. Améliorer les mesures au niveau national et régional pour renforcer la protection de la Propriété Intellectuelle (PI) africaine y inclue une participation aux activités du Comité de l'OMPI sur le Développement et la Propriété Intellectuelle (CDIP), pour la préservation de nos noms géographique, de nos noms d'héritage culturel et des noms de notre connaissance traditionnelle, 7. Mettre en place des mesures qui soutiennent le développement de contenus locaux, y compris la création d'un environnement favorable, l'amélioration de l'infrastructure Internet locale pour offrir un accès et un hébergement des contenus au niveau local, 8. La promotion de l'utilisation des langues nationales et des noms de domaines Internationalisés (IDNs) dans le développement et l'hébergement de contenus locaux comme moyen pour atteindre plus de personnes au niveau local et préserver la culture locale, 9. La promotion de l'établissement de centres de données (Data Centers) et des infrastructures connexes au niveau local, 10. L'amélioration de la participation et des contributions des gouvernements aux travaux des institutions régionales et internationales et aux initiatives qui participent de la gestion de l'infrastructure Internet Africaine et international tel que AfriNIC, AfricaCERT, AfNOG, AfTLD, ISOC, UAT, UIT, ICANN et toute autre institution pertinente, |
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| <p>11. To mandate the African Telecommunications Union (ATU) to coordinate the participation and involvement of African Governments in regional ICT initiatives.</p> <p>Resolve to express our sincere and deep gratitude to the Government and People of Burkina Faso for hosting the meeting on Internet Infrastructure for an African Digital Economy with the support of the African Network Information Centre (AfriNIC), the Internet Society (ISOC) and the Internet Corporation for Assigned Names and Numbers (ICANN).</p> <hr/> | <p>11. Charge l'Union Africaine des Télécommunications (UAT) à coordonner la participation et l'engagement des Gouvernements africains aux initiatives régionales en matière des TICs</p> <p>Exprimons nos sincères et profondes gratitude au Gouvernement et au peuple burkinabè pour avoir accepté d'accueillir l'atelier sur l'Infrastructure Internet pour une économie numérique en Afrique avec le soutien de l'AfriNIC, de l'ISOC et de l'ICANN.</p> <hr/> |
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Appendix II: Workshop Program

**INTERNET INFRASTRUCTURE FOR AN AFRICAN
DIGITAL ECONOMY MEETING
5 – 7 MARCH 2012, OUAGADOUGOU, BURKINA
FASO**

*“Theme: Internet Infrastructure for an African Digital
Economy”*

| DAY 1 | | |
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| 0800 – 0900hrs | Registration of Delegates | <i>Venue</i> |
| 0900 – 1030hrs | <p><u>Opening Ceremony</u></p> <p>Welcome Remarks by the ATU</p> <p>Opening Remarks by ICANN</p> <p>Opening Remarks by ISOC</p> <p>Opening Remarks by AfriNIC</p> <p>Opening Remarks by ACRE (ICT Regulatory Authority)</p> <p>Keynote Speech: Minister of ICT, Burkina Faso</p> | <ul style="list-style-type: none"> • Abdoulkarim Soumaila, Secretary General, ATU • Anne-Rachel Inne, Manager of Regional Relations for Africa • Dawit Bekele, Director of the Africa Regional Bureau • Adiel Akplogan, CEO • Head of the ARCE (Regulatory Authority) • <i>Minister of ICT</i> |
| 1030 – 1100hrs | <i>Coffee Break</i> | |
| 1100 - 1230hrs | <p>Introduction:</p> <ul style="list-style-type: none"> • <i>The evolution of Internet: Governance and Management</i> | <p>Moderator: Prof. Nii Quaynor</p> <ul style="list-style-type: none"> • <i>Anne-Rachel Inne, ICANN</i> • <i>Dawit Bekele, ISOC</i> |

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| | <ul style="list-style-type: none"> • <i>The Evolution of Internet Technology Internet connectivity in Africa :Focus and perspective</i> • <i>Q&A</i> | <ul style="list-style-type: none"> • <i>Abossé Akue-Kpakpo, UEMOA</i> |
| 1300 – 1400hrs | <i>Lunch Break</i> | |
| 1400 - 1515hrs | <p>Internet Governance Institutions and the role of various stakeholders:</p> <ul style="list-style-type: none"> • <i>UN-IGF, ITU, ICANN, IETF, AfriNIC, AfNOG, AfTLD, AfCERT, among others</i> • <i>Q&A</i> | <p>Moderator: Adiel Akplogan</p> <ul style="list-style-type: none"> • <i>Pierre Dandjinou, AfricaCERT</i> • <i>Ali Drissa Badiel, ITU</i> • <i>Nii Quaynor, Af*</i> |
| 1515 – 1530hrs | <i>Coffee Break</i> | |
| 1530 - 1700hrs | <p>Overview of Internet Number Resources:</p> <ul style="list-style-type: none"> • <i>Global and regional IP Address management</i> • <i>IPv4 address depletion & IPv6</i> • <i>Role of Governments</i> • <i>Regional & Country Experiences (AfriNIC, Senegal, Egypt)</i> • <i>Q&A</i> | <p>Moderator: Mark Elkins</p> <ul style="list-style-type: none"> • <i>Fiona Asonga, TESPOK/KIXP</i> • <i>Adiel Akplogan, AfriNIC</i> • <i>Ali Drissa Badiel, ITU</i> • <i>Hisham Ibrahim, AfriNIC</i> • <i>Haitham El-Nakhal, National Telecommunications Regulatory Agency, Egypt</i> • <i>Marieme Thiam Ndour, Ministry of Posts, Telecommunications and ICT, Senegal</i> |

| DAY 2 | | |
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| 0830 – 0900hrs | Registration of Delegates | <i>Venue</i> |
| 0900 – 10:30hrs | Domain Names (ccTLDs, gTLDs, IDNs, registries, registrars, among other issues): <ul style="list-style-type: none"> • <i>gTLDs, ccTLD, IDNs, newgTLDs and IDNs</i> • <i>Registries, Registrars</i> • <i>Role of governments</i> • <i>Country Experiences (South Africa, Cote D’ivoire)</i> • <i>Q&A</i> | Moderator: Emmanuel Adjovi <ul style="list-style-type: none"> • <i>Anne-Rachel Inne, ICANN</i> • <i>Barrack Otieno, AfTLD</i> • <i>Mark Elkins, ZADNA, South Africa</i> • <i>Dr Kadjo Tanon Lambert, NIC CI, Cote D’ivoire</i> |
| 1030 - 1100hrs | <i>Coffee Break</i> | |
| 1100 – 1230hrs | Interconnection and Internet traffic exchange: <ul style="list-style-type: none"> • <i>Interconnection around the world and in Africa</i> • <i>African Union’s AXIS & Connect Africa projects and role of governments</i> • <i>International Telecommunication Regulations (ITR's) and global interconnection rates – ITU Study Group 3 Subject Area</i> • <i>Role of governments</i> • <i>Q&A</i> | Moderator: Prof. Nii Quaynor <ul style="list-style-type: none"> • <i>Michuki Mwangi, ISOC</i> • <i>Abossé Akue-Kpakpo, ITU Study Group 3</i> • <i>Dr Kadjo Tanon Lambert, NIC CI, Cote D’ivoire</i> |
| 1230 – 1400hrs | <i>Lunch Break</i> | |
| 1400 – 1600hrs | Internet Security: <ul style="list-style-type: none"> • <i>Introduction, Overview of the Status of Global Cyber Threats and Global Cyber Response Initiatives</i> • <i>National, Sector and Regional CERTs</i> • <i>Role of governments and other stakeholders</i> | Moderator: Pierre Dandjinou <ul style="list-style-type: none"> • <i>Ali Drissa Badiel, ITU</i> • <i>Pierre Dandjinou, AfCERT</i> • <i>Haitham El-Nakhal, National Telecommunications Regulatory Agency, Egypt</i> • <i>Vincent Ngundi,</i> |

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| | <ul style="list-style-type: none"> • <i>DNSSEC & Identity Management</i> • <i>dotAfrica</i> • <i>Q&A</i> | Communications Commission of Kenya (CCK) <ul style="list-style-type: none"> • <i>Mark ELKINS, Posix</i> |
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| DAY 3 | | |
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| 0900 – 10:30hrs | Local content : <ul style="list-style-type: none"> • <i>Why local content matters</i> • <i>Local content in Africa and around the world: Opportunities and Challenges</i> • <i>IDNs for content promotion</i> • <i>Role of governments</i> • <i>Q&A</i> | Moderator: Mme OUTTARA/SANON Hadja Fatimata <ul style="list-style-type: none"> • <i>Anne-Rachel Inne</i> • <i>Mark Elkins, Posix Systems, South Africa</i> • <i>Dawit Bekele, ISOC</i> • <i>Emmanuel Adjovi, OIF</i> • <i>Alfred SAWADOGO, MTPEN, Burkina Faso</i> |
| 10:30 – 1100hrs | <i>Coffee Break</i> | |
| 1100 – 1200hrs | Open Informational Session on WCIT12 | Moderator: Adiel Akplogan |
| 1100 – 1300hrs | Preparation of Recommendations | <ul style="list-style-type: none"> • ATU |
| 1300 – 1400hrs | <i>Lunch</i> | |
| 1400 – 1500hrs | Presentation and Adoption of Recommendations | <ul style="list-style-type: none"> • ATU |
| | Official Closing | <ul style="list-style-type: none"> • ATU • ARCE |

Appendix III: List of Participants

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