East African Internet Governance Forum (EA- IGF) 2011

Harmonization of Internet Policies in the Region of East Africa

Venue: LEMIGO HOTEL – KIGALI RWANDA

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Introduction and Welcome remarks by Patrick Kabagema; Chairman (RICTA -RNIGF)

Rwanda for the first time hosted the fourth East African Internet Governance Forum (EA-IGF), a two days conference with focus on discussing the harmonization of internet policies across the East African Region. With presence of delegations from each country of East African Region and delegations from ICANN, ISOC and various other organizations, the forum represented all organs of the East Africa region by putting together Governments, Private Sectors, Civil Societies and regulatory bodies. The forum presents a joint coalition of stakeholders to discuss Internet challenges faced in East Africa such as access to internet and cyber security.

IGF in regional and global context by Alice Munyua - EA-IGF Convener

Thanking participants for the participation plus special thanks to the Minister of ICT in the President's Office for hosting the 4th EA-IGF "This forum is very important and continued to be extremely valuable in rising awareness and forming policies plus hope that it will continue to create great opportunities as it evolves" she said

The EA-IGF was first conceptualized and convened by the Kenya ICT Network supported by the Kenyan Government through the Ministry of Information and Technology supported by RDNC funding and ISOC in 2008, the second EA-IGF was also hosted by the Kenyan Government in conjunction with the Private Sector, Civil Society, supported by ISOC, ICANN, international industry such as NTNT, NOMINet and others, the 3rd one was hosted by the Ugandan Government in 2010 last year with support from the government, private sector as well as international community ISOC, ICANN, NTNT, NOMINet and JICA supporting it since 2009. This year it is very pleasing to have the Rwandan Government , Ministry, Private Sector, and again ISOC supporting; in fact the presence of Regional and international animators are here because of fundings provided by ISOC and ICANN, and they are also going to make sure they participate in the global IGF next month.

The IGF follows a courtesy of approach that begins on the national level with virtual discussion, in Kenya it is through Kenya ICT mailing list; in Uganda it is e-Network mailing list, in Tanzania it is SwotNet and in Rwanda it is through the Rwanda Development ICT mailing list, discussion focusing on identifying issues affecting local internet governance are gathered , and discussed on the local level during national IGF so that before the EA-IGF all five country have identified issues that affect internet on the national level and contribute to issues that forms the program of the EA-IGF.

This strategy has been playing as a very effective one because it bottoms-up and somehow mirrors the IGFs that stand for principles of the global IGF on international level, and it is quite important as the outcome for both local and regional processes contributes to discussions on the global level.

'The internet Governance Forum was created as a new arena for multi-stakeholder dialogue about internet-related issues, among others critical internet resources, security and safety of internet; and one of the most fascinating issue that came with the internet in its development and growth is its link to the government as it started as a government projects in the US 1980 then in 1986 the internet engineering taskforce ITF was established and it managed to develop internet through consensus and decisions making processes by involving a wide variety of individuals, they was no central government, no central planning, no grant design but the network continued evolving.

And then in 1994 the US national transformation center involving the private sector for the first time by subcontracting the management of DNS, the internet continued to grow by involving more organizations from the private sector.

Then Since 1998 with establishment of ICANN, the management of internet has been characterized with a very intensive involvement of national governments and it also generated different national and international frameworks including the International Telecommunication Union ITU and now the IGF.

The IGF is a result of intensive discussions especially in the world summit of information society both in 2001 and all the way to 2005 where the main controversy was the role of government and oversight of policies when internet was developing especially through ICANN and over ICANN, the outcome was to see internet governance issues raised on the diplomatic agenda, a number of actions were proposed among others creating IGF as a space for dialogue about public policies issues affecting the development and deployment of internet.

The forum was designed in a way to ensure full enough participation of all stakeholders, Private sectors, government, media, civil society, youth, consumers and organizations from both developed and not developed countries. Global IGF is convened by UN general secretary and the first International IGF was held in Greece in 2006, the second one in Brazil in 2007, the third one in India in 2008, the fourth one in Egypt in 2009 and the 5th one by the UN security Council in order to celebrate its 5 years and the next one is going to be held in Nairobi-Kenya, the 7th one will be held in Azerbaijan.

The fact that the 6th is going to be held in Nairobi and being that it is the first time the International IGF is going to be held in a sub-Saharan Africa country, we really welcome the development of the agenda and the focus of the forum and all other ambitions to be discussed are very important to us.

The main focus of the 2011 global IGF is as the theme state it "the internet as a catalyst for change, access, development and innovation; it enforces different things one of them is internet government development (something very much welcomed in our region), managing critical internet resources, security, openness and privacy , then also analysis and diversity. In addition there are over ninety workshops that will be held in that period of five days and everybody is welcomed in broad discussions about internet policies issues and technologies in each event that are going to be organized by internet multi-stakeholders held at the UN complex in Nairobi.

As a conclusion, one issue that has been challenging is the future of the IGF and is an issue that all internet stakeholders of East Africa Internet Governance Forums have to be considering in the future days. As said last year the UN IGF mandate is extend to five years and it is for setting-up a model of managing the IGFs but there is a challenge of financial support of the EA-IGF. It must be beyond the multi-stakeholders models and multi-stakeholders dialogues and we must put money where our mouths are, each IGF must be able to support its activities, not only the UN secretariat but also the activities at various level, and processes; it is very important for international communities, industries, technical community civil societies support IGFs to get involved.

This multi-stakeholder model has provided fantastic opportunity and a great model for various stakeholders to discuss a times very challenging policies and political issues, but governments should not be expected to be the only ones that support this process alone because when I look what my government is doing, we are putting down 2.5 million dollars just for hosting the meeting and waiting for international stakeholders has been really challenging, it is extremely important that there is some level of willingness to support more than just a dialogue and to ensure that there is full engagement of stakeholders in the region and also ensure relevant and diversity in participation and contribution such that our issue are all reflected on the international IGF program.

One of the challenge as identified last year in the IGF held in Kampala is that IGF isn't a negotiating forum, but we can make it what we want it at the regional level and discussed severally we can create space for discussion and also by taking into consideration the courtesies and processes that are more felt at the national level, it is important to discuss the features of EA-IGF, the role it plays, in governance and policies and processes more on the regional than international level.

As mentioned again the EA-IGF was conceptualized and convened by the Kenya ICT Network, the organization and all the fundraising has been made by Kictanet for four years, it enabled all East African stakeholders to discuss issues and also continued to include critical stakeholders among the members of parliament in 2008 and 2009 it conducted a session of members of parliament , developing partners like NDRC, JICA and others, international industry and technical community like ISOC, AT7&T, NOMINet among others, that have actually got involved on the regional level something which very much impressive

Since 2009 there have been discussion about developing a more sustainable East African IGF, we welcome those discussion and have been encouraging those discussion and it will be important

before we go through this two days of the EA-IGF, that we begin to consider not only what type of instructions we need to have but also more important is what type of internet we need to have to ensure that it contribute to our region development

Keynote Address - Hon. Dr. Ignace Gatare; Minister of Information and Communications Technology, Rwanda

The Honorable Minister started by thanking Alice for the clear presentation about the background of the EA-IGF and its development activities in the East African communities. He noted the presence of Senator Gasamagera, who has been at the forefront of promoting the IGF and the issue with its governance in Rwanda, and thanked him for bringing these matters to the country legislative authorities, which is very key to make sure that ICT is progressing. He thanked Miss Alice Munyua the convener for EA-IGF for her leadership and her commitment to the development of internet governance in Africa and East Africa in particular and all participants from various countries of the East African community and also international organizations for their support and sponsorship, the participant and representatives of ICT organizations and ICT civil society from their respective countries.

Below is the speech of Minister of ICT in the President's Office, Hon Ignace Gatare.

I am more than humbled to join you during this East African Internet Governance Forum which gathers different stakeholders from various organizations during with ICT development in general and promotion of more inclusive Internet governance within the East African region.

I will also take this opportunity to also welcome all participants from our East African community sister countries, who could join this gathering to discuss and address the current and growing issues related to the governance of internet which is increasingly becoming a chum of modern communication and a powerful tool to efficient economic and social transactions.

You are certainly aware of this significantly effort of East African country investing in the fiber optic and broadband infrastructures, which coupled with broadband solutions are expected to boost our assets to high speed internet connectivity and to fully harness potentials of broadband and the internet we need consulted effort in the East African regional vision particularly in designing ICT infrastructures which are in line with the overall region integration spirit, so ICT for region integration is key for achieving our East African innovative vision.

This will only be possible by capitalizing on region synergies between different stakeholders from the government, the private sector but also from the civil society, that is why I can comfortably say that this fourth East Africa IGF is timely and constitute a great platform for exchanging ideas and experience build on clear understanding of our shared challenges while finding practical and cost effective solution of the issue of internet governance.

We perfectly know that access to ICT and internet can unlock limitless development opportunities in generating business efficient services delivery, quality education and good governance, furthermore ICT represent also a powerful tool or a powerful engine which can significantly foster innovation, entrepreneurship and competitiveness which are critical in strengthening the position of East Africa within the global economy, however access to ICT and internet based services should be not limited to only urban areas, we need to bring those ICT services much closer to our populations living in rural areas.

With this we need genuine commitment to fight any digitally bias, by increasing awareness at the grassroots level, while linking available ICT tools and applications which address the really needs of our population.

Internet for community development should therefore be a regional priority, to this end we need to develop a more integrated e-government strategy which promotes the use of digital content in local language and citizen friendly ICT access facilities, Dear participants, ladies and gentlemen allow me to come back to the specific issues of Internet governance by recalling some of the issues we are now very familiar to but which particularly need our concerted efforts given the dynamic, nature of ICT and electronic transactions in the cyber space.

First of all we need to design and implement policies which facilitate access to affordable broadband services based on efficient ICT for community development program and universal access, in this regard we must promote the development and dissemination of community information access points because in my opinion when we talk about internet there is an issue of access, who has access to internet and using which channel, so the development of information access point which we use as telecenters, cyber café are the first and initial access points we have to develop so that we have a wide range of opportunities where people can have access to those services.

We have to encourage e-services leveraging on mobile communication, we know that mobile communication is being the engine for telecommunication and ICT growth in Africa, we need to use those existing facilities in order to make ICT available, so mobile communication and emerging technologies such as next generation networks, cloud computing, and efficient digital content distribution channels such as social media network, second we need common strategies in managing the flow of electronic transactions in a more sober and secure manner, therefore the issue of cyber security, that our privacy and consumer protection shall be deeply investigated and addressed at the East African Level in collaboration with international partners, in this regards it is of paramount involvement that we have a more integrate approach while setting up for example critical infrastructures such as security cooperation centers, public key infrastructures as well as redundant data storage and recovery facilities.

Third I strongly believe in regional communication infrastructures integration for efficient internet routing management, we know that each country has it s own strategy dealing with internet access points, we know that we have individual networks as backbone but we need to see it in a more integrated way and design in a more collaborative way, to this end more regional collaboration is indeed needed in order to deploy national and regional internet exchange points in, a more efficient and collaborative way this will surely help us in achieving the reduction of cost of internet access while being a high speed connectivity and bandwidth management which are key for internet governance.

Forth we must also put in place a clear East African strategy to monitor and prepare the transition from IPV4 to IPV6 internet protocols, the requirements for such a transition should be well understood and should avoid to be driven by international standards or whatever, we have

to understand what are the dynamics behind those changes so that we are not caught at the end of it, we have to understand and be proactive and set up working measures in order to cater for any rapid change in terms of standards related to this transition,

This exercise should not be the sole responsibility of policy makers and regulators but it should include all stakeholders such as ICT private sector and the civil society within the East African Community.

Fifty we cannot talk about internet governance without ownership and strategic management of the domain names and associate internet resources; as pointed out by Alice, but it seems that this fourth East-Africa IGF represent the unique opportunity to pursue our discussion on this critical issues, I am grad that ICANN is presented here and we think that we have many organization like ISOC and others like ITU which can be very cooperative in terms of making sure that we have ownership and a clear management set up for our domain names.

Finally we must strengthen and promote formal and informal collaboration frameworks for ICT capacity building and skills development which is key for us to achieve our regional ICT visions, if you see how ICT development have been done in this region you will found that most of the critical infrastructures and projects have been implemented by external experts, I think this is an opportunity we missed to learn how to set up those infrastructures and to build a kind of body of knowledge where people can say that we have people in place who can deliver on those critical projects, so future internet governance should take into account skills development which is a key point to an governance of the internet, we know it is a changing sector so we have to be very capable and adapt ourselves to those changes.

I therefore urge that we identify ICT development clusters, when we talk about ICT internet is becoming very vast and broad so we need to narrow down and understand really what are the clusters and through which we can identify a way of creating a critical muscles of regional expertise while grouping knowledge which covers our current and future needs not only in computer scientists and engineers but and also professional in hands-on skills, this is very important for development for a vibrant and a competitive ICT industry we desire in our country.

I would like to end my note by redirecting my thanks to the organizers of this 4th EA-IGF and all the participants for attending, I also acknowledge all individuals and organizations who contributed by their valuable support to the organization of this forum, let us join our effort for a more enthusiastic and proper governance in the East Africa region, I strongly believe that the outcome of this forum will have a way for shipping our input to the coming UN-IGF being organized in Nairobi.

Question and Answer Session following the Minister's speech

Question: When requested about the possibilities of development for ICT clusters [by *Christine Runnegar from ISOC*]

Response:

The Honorable Minister responded by saying that when referring to most of national ICT strategy plans as a sector with priority in all countries, and by looking at how ICT is designed in each country; every country has got key focus area in terms ICT development. For instance recently, Rwanda has developed ICT strategic plans, whereas Uganda has established different organization focusing on ICT and Tanzania has got key areas which they want to focus on. However, these programs are being developed without involvement from external organizations. Hence by talking about ICT clusters, ICT should be seen not only as a package but focus should be put at the regional level to establish the key focal areas where we think we share challenges and where we need support from other stakeholders like ITU, IGF, ISOC, etc. We should look at having a more inclusive approach where we shall continuously have a framework through which consultation can be carried out.

To be specific on the issue of information security; if we can look at this forum with a regional vision, automatically information security can be identified as a cluster and then subsidize the cluster into specific infrastructures like fiber optic, establish an information security center for each country, building public infrastructure and build internet access points. Clusters can be identified in each part of a particular sector and sub-sectors of ICT and build national clusters in the national ICT strategic plan.

Talking about clusters can help to identify problems and even stakeholders in such a way that things are analyzed more practically and when orientations are defined they are shared at the regional level through forums of information security. For example, forum for infrastructure development, public infrastructure, or security operation centers so that when it comes to standards, interconnections; clusters are already set, something that can develop those ideas at the very beginning of the intersection points so that deployment does not come after collaboration.

Those clusters are very instrumental and known to be very proactive in terms of setting the key orientation we want the region to embark on and knowing that there is network deployment as Rwanda has deployed a network backbone, same as Tanzania and Uganda. We know that network will benefit the region thus we need interconnection; but how is it done currently, basing on my own experience most of the time we set up ad-hoc technical team when a specific interconnection for example between Rwanda and Tanzania and when is needed; even though we know that the technology is dynamic, but we only solve a particular problem and that is all, but if there a permanent collaboration framework at the region level, let's say in terms of interconnection, then we can use EACO, East Africa community, IGF to continuously mature the discussions so that the interconnection is not a prompt problem. It has to remain continuous concerns because we need it done. These are few examples.

Then about e-governance we need East African integration, e-governance for Rwanda, for Tanzania, … we must be talking to each other and be more coordinative; the cluster of e-governance for example is key so that when we develop our strategies the integration is already thought about and if clusters were being coordinated in better ways we could be benefiting from expertise from international organizations like ITU, I am convinced that working in clusters will help us to focus and also be efficiency in terms of addressing specific issues.

Let's say there is an issue of media networks, we know how they are impacting the changes and if more people know how to use them it can be utilized to benefit the development of our population but we need clusters who can analyze what are the competitive benefits we can get from using these social media networks in the East Africa region and so on.. Those are few examples and having more clusters will help us to be more efficiency.

Comment [from Senator Wellars Gasamagera with a willingness to champion it if he happen to be on the global IGF]:

He commented by requesting Honorable the Minister to extend a bit about capitalizing of regional synergies by emphasizing that our systems and process will never gain in momentum without such synergies in presence because in most cases our stakeholders are used to work in kind of competitions and predations instead of putting all ideas together in order to share concerns and their appropriate solutions.

Response:

By extending the comments from Wellars Gasamagera, he said that I don't think that an ICT designed or planned in isolated manner will impact the region and if it is only impacting one country, it cannot reap because ICT cannot be confined in a region or in national territory, we need to expand it to the level of regional and international level because of the advantages it provides in terms of interconnectivity.

Kigali is connected to New York through fiber optic submarine, technically speaking it is not different from being connected to Tanzania because of the nature of the technology, meaning that if we have those synergies we will better identify the advantages and opportunities which we can take from those technologies. I will say that we have the opportunities to use existing profuse. For examples we have the East African community.

The critical question that maybe we should answer is this: how far ICT is perceived as a key issue within the Africa Community when they are debating regional matters, let's say when they are talking about transport, when they are talking about railways, … How to decision-making bodies on the regional level perceive ICT?

I think the role of senators, the role of community organization is that they are responsible to ensure that ICT is understood at the same level as security issues, cross-border trade and others; so that as A Minister of ICT when I talk about interconnection, it is psychologically and physically perceived as cross-border trade is perceived, but my concern is that when it comes to

cross-border trade, maybe physically the issue may not be well captured but we have to understand regional cross-border interconnectivity in telecommunication as a road, as trade, as cross-borders security issues and those synergies are needed to make sure that ICT is perceived the same way legacy sectors like transportation, security and trade.

I think that our role as policy makers is to work with all organization like IGF, EACO and other organization like ITU and make sure that we have a clear strategy and make sure that in our decision-making process ICT is also inclusive. And more awareness is needed because it is not easy to talk about ICT in more general forums.

There is a lot to be done and there are already some initiatives at bilateral level, for instance Rwanda is discussing with Tanzania for cross-border fiber optic interconnectivity, and Uganda, we have forum within EACO on harmonization of for example migration from analogue to digital television, we have a forum of harmonization of internet security and I think IGF can come also as another partner to make sure we have several forums where we can discuss ICT issues so that by concerted effort those synergies can be of a great importance.

National IGFs status and progress reports

Kenya Report: Grace Githaiga - KICTANET

The Kenyan IGF spearheaded by KENIC in partnership with Kictanet kick started this year's process with an online discussion for ten days (July 1-July to July 11, 2011) on the KICTAnet list. The main topic of discussion was "What is Internet Governance, the IGF process, Kenya's contribution?" This was then followed by a one day face-to-face meeting on July 22, 2011.

The topics discussed included;
- ➢ Impact of Mobile Internet in Kenya
- ➢ Mobile Payment Platforms
- ➢ Cloud Computing
- ➢ Cyber Security and Privacy
- ➢ Broadband

Key Questions for consideration;

1. What role have mobile networks played in providing Internet access to Kenyan citizens and w hat needs to be put in place to promote mobile Internet and enhance local content develop ment?

2. What initiatives are needed to ensure that sufficient spectrum is available for mobile networks to provide effective Internet access for various services?

3. Mobile payments platforms continue to offer tremendous amount of services and innovation, with the ability to exchange, transmit and store data and content embedded within payments systems. What are the challenges in balancing consumer protection and regulatory oversight? Particularly regarding privacy and ownership of information/content and data?

4. What role should the government play to promote cloud computing in Kenya? What practical steps should Kenya take that will move cloud computing from a lofty idea into a strategic commercial resource and to application of the cloud for development? What are the key challenges (policy, legal, regulatory) of cloud computing?

5. With Cyber Security threats increasing at an alarming rate, what strategies can Kenya embrace to address and combat the threats? What initiatives are needed to ensure there is sufficient awareness and education on Cyber threats?

6. As a nation does Kenya need a comprehensive policy on broadband, if so what should it contain? What public policy initiatives and incentives are needed to stimulate investment in high-speed broadband to achieve universal access?

Kenya's Emerging Issues

1.   Citizen Engagement and participation, including Evoting, engagement in reform processes and the role of the Internet in enhancing transparency accountability and good governance. Participants proposed future discussions on the kind of mechanisms that should be put in place to enable citizen participation particularly mobile phone applications

2.   User confidence and Privacy culture as it relates to Kenyan's lack of regard for privacy in the offline world and the impact of this as more Kenyans get online

3.   Youth and the IGF process. Involving young people

4. Protecting Kenyan Intellectual property as it relates to cloud computing, as well as possibilities of Northern hegemony in cloud computing.

5.   New gTLDs and support for developing countries

6. Multi stakeholder model in ICT and in particular Internet Governance Policy processes.

Uganda Report: Lillian Nalwoga - CIPESA

The Uganda IGF is a multi-stakeholder Forum open to representatives from Governments, NGOs, academia, private sector, as well as any other entities and individuals interested in Internet Governance issues. It has held four National IGF conferences so far. Among its objectives is to identify, explore and build consensus around common internet governance issues in the country.

Recap of last year's conference

Access and broadband affordability;

Push for increased rural broadband access with a call to harmonize ICT deployments, increased sustainability of rural access projects and capacity building of rural dwellers to use technologies.

There was a call for the need to empower youth to run ICT projects as a way of improving youth access and productivity.

Call for investment in local content development and creating awareness for the importance of local content

Call to strengthen management of the Uganda IXP by addressing infrastructure vulnerabilities.

Cyber Security management

Operationalization of the Cyber laws i.e. Parliament passed the Interception of communications bill, Computer Misuse bill and e-signature bill

The Ministry of ICT is was in the process of developing the National Information Security Strategy under NITA-U

A nation Computer Incident Response Team(CIRT) was under establishment –spearheaded by UCC/Ministry of ICT

Call for re-delegation of the .UG

UCC was in the process of establishing a non-for-profit organization Uganda National Information Center (.ugNIC).

Development the IPv6 Migration strategy

Ministry of ICT was in the process of formulating of multi stakeholder task force to address IPv6 issues in the country

2011 IGF Issues

Cyber security management: *Operationalization of the cyber laws*

The Ugandan cyber laws - the Electronic Transactions Act, the Electronic Signatures Act, the Interception of Communications law and the Computer Misuse Act –were assented to by the President. Copies of these laws are now available for purchase from major bookshops. However, only the Computer Misuse Law is operational while regulations for the others are yet to be developed.

National Information Security Strategy to be implemented by NITA-U

Mobile phone security- called for the adoption of proper measures in the implementation of the SIMCARD registration process

Access and broadband:
Completion of Phase one of the establishments of the District Business Information Centres (DBICs) in six (6) Districts: i.e. Lira, Iganga, Rukungiri, Mityana, Kamwenge and Busia. Further, there is planned rollout of DBICS in three new Districts this financial year.

There is an on-going process to rollout the National Data Transmission Backbone Infrastructure and e-Government Infrastructure Project (NBI/EGI).

- Phase one of the project saw the laying of 168kms of fibre optic cable to link 5 towns: Mukono, Bombo, Entebbe and Jinja to Kampala. Transmission equipment is in place in all 5 towns. Within Kampala and Entebbe, cable is in place linking 27 ministries and government departments.

- Phase Two of the NBI/EGI project is underway and scheduled for completion in September 2011. It involves the laying of 1,477 KM of additional Optical Fibre Cable in the districts of Mbale, Kumi, Soroti, Lira, Gulu, Nimule, Masindi, Hoima, Kyenjojo, Fort Portal, Kasese, Bushenyi, Mbarara, Nakasongola and Luwero. (*A map detailing the project coverage is*

now available on the NITA-U website at www.nita.go.ug

Critical Internet Resources (CIRs): A national IPv6 strategy has been developed and awaiting approval from the ICT Minister. The Country's .UG ccTLD Management strategy has been developed and is under review by stakeholders

Cloud computing services are in their infant stage in Uganda. Computer Frontiers International (CFI) offers some cloud computing facilities and infrastructure. NITA-U has the concept in works but it is unclear whether once complete,
the services will be immediately available on the open market.

Government recognizes the uptake of social media for citizen engagement. Initiatives like walk to work campaign, election monitoring among others have portrayed the potential of social media in citizen empowerment and engagement. Hence governments should adopt use of social media to improve communication their channels – NITA-U is on Facebook and twitter

Determining what internet is needed in Uganda: Recognition of the role played by international institutions –ISOC, IETF, (Internet Architecture Board-IAB, ICANN, W3C as we believe they can answer questions like; what type of internet does Uganda need? who will help define the Internet's evolution? What role should government and private industry play? How do we provide greater bandwidth and access? What does online privacy mean in the age of social media? Investment in local content innovations

Ugandan IGF Way Forward

Development of a Uganda IGF website, newsletter and an IGF handbook detailing key issues and progress made.

Call for the clarification whether the East African IGF processes can be used to influence policy at the East Africa Community.

Implementation of remote participation in national, regional and the global IGF forums to benefit people unable to attend follow proceedings from these forums

1. Call for Uganda government to address total cost of ownership on mobile phones with the removal of import duties as a remedy for improving access especially mobile access

2. Call for more government involvement in ICT organized events

Rwanda: Emmanuel Habumuremyi

Background: The Rwanda National IGF Conference

The National IGF conference was held at Telecom House (Kigali) on the 17th July 2011. It was a jointly organized by Rwanda Information and Communications Technology Association (RICTA) established to specifically cater for the internet and connectivity related issues that ICT in Rwanda faces, MINICT, RDB/IT, RURA, JICA, and other stakeholders. In attendance were stakeholders from Private Sectors (especially Telcos), Public institutions, Civil society, Academia and Media attended the conference.

The theme of the conference was; "**Leveraging ICT for socio-economic development**"

The Discussions focused on:

- Briefing IG stakeholders on the Background of the IGF (at national, regional and international level).

- Stakeholders' participation in ICT 4D and country development:

- Developing ICT on the national level, regional level and globally as well is a vital way to attain new and reliable inter-relations between countries.

In order to achieve this, the key priority is to establish significant co-operation between both the private and public sectors locally and develop partnerships regionally.

The Rwanda National-IGF Achievements:

Put together national stakeholders to discuss Internet government issues was a step to the finding of their solutions. IGF is under ICT chamber of Private Sector Federation. The Rwanda National IGF prepared/organized the fourth EA-IGF to be held in Rwanda (Kigali, Lemigo Hotel).

The challenges being faced by the Rwanda National-IGF include:

- Establishing a governance framework

- Regular follow up by EA-IGF secretariat of the National IGFs

Priority areas and action plan for next years:

There is need of handling limitation such as costs and affordability of the available services, thus the government contribution to enable people run and do different activities using Internet is very much needed.

Key issues affecting the development of ICT in Rwanda and how stakeholders can participate and contribute to find solutions:

- Connectivity: Much progress has been noted especially in terms of infrastructure. Currently, Rwanda has the highest fiber optic cable distribution level in the whole of

Sub-Saharan Africa. But institutions still maintain satellite connectivity as a redundancy measure for times when connectivity by optic fiber is interrupted.

- Devices: the quality and cost of ICT devices is still a major issue.

- Local content: Broadband available, but there is a need for promoting local content development.

- Affordability: devices availability, connectivity, language and availability of suitable applications. Rwanda has got access to the backbones facilities such as submarine cables, terrestrial (inter-states and in-country) and fiber cables that enable via fiber, WIMAX, 3G, WIFI, etc but these facilities are still expensive.

Key Issues discussed during the Rwanda National IGF Conference
- **Cyber security issues:** disaster recovery center, policy, regulatory framework
- **Internet resources:** cross-border inter-connection and integration of local internet exchange in the region
- **Migration from IPV4 to IPV6:** strong policy and readiness to initiate the migration
- **Fast tracking the repatriation of ccTLD:** stakeholders partnership to re-patriate the DNS in a dynamic and aggressive manner
- **Cloud computing and mobile application:** policy regulatory and framework to enable the transition
- **ICT regulation and costs implications:** interconnectivity, inter-relation between countries, satellite links and submarine cables
- **ICT infrastructures:** availability of affordable devices, connectivity to schools and urban areas
- **Internet affordability:** licenses fees, transit fees, satellite links and fiber cables, regulations.
- **Human resources development:** capacity building, teachers training, school children education, scholarships and internships.
- **International harmonization:** readiness and attaining national stability first
- **Consumer awareness:** investing in rural areas and advertisement
- **Government contribution:** Government support to ICT development and promoting Internet Governance

Recommendations from the Rwanda National IGF conference

- The good use of ICT as a great tool for new innovations and progress towards a sustainable development for a country should be put at first place and analysis of people's willingness to use it should be done hand in hand so that the need of a skilled population who can transform our economy through innovation and competence is met.

- Discussion groups on Internet related issues should be privileged to support IGF efforts to promote internet usage, awareness and influence ICT policy making.

- Initiatives to establish Partnership between Private sector and High Learning institutions for capacity development in ICT sector should be encouraged.

Conclusion

Considering the challenges and concerns related to internet backbones and infrastructure at large, and skills related necessities to be tackled, having an Internet Governance Forum will help in the stakeholders' efforts in recognizing and promoting ICT at large, to boost the awareness of its productive use in order to capitalize on human resource development, skills development and the establishment of a knowledge based economy in Rwanda based on a shared and harmonized system among member countries of the EAC.

Burundi Report - Victor Ciza

The National IGF in Burundi started in September 2009 but in 2010 the IGF meeting could not happen. The 2011 National IGF conference was held just before the EA-IGF conference.

The meeting was opened by the Minister of Telecommunication and Information who emphasized on the importance of ICT and internet governance in the process of introduction of technology in our countries and society. Afterward different speakers presented such as the CEO of Burundi Backbone System (BBS) company which is in charge of constructing the country broadband network and introduction of fibres.

Cyber security and cyber-crime was also discussed, legal and regulatory frameworks presented by the legal advisor of the regulatory body for telecom in Burundi. New developments were given particularly such as rules related to the information society and electronic transactions that are being presented to the cabinet.

The Executive Secretariat of ICT also presented challenges and opportunities for ICT and highlighted that Burundi is far behind in our Sub-region and that Burundi is trying to catch up thus ICT strategies being set-up and implemented.

A presenter from the Academia talked about the e-learning opportunities provided by ICT infrastructures, and about the opportunities available that are very important in the development of our human resources.

The Executive Secretary on the new commerce chamber in charge of ICT presented about the progress of the new chamber; he mentioned the advocacy carried for the taxation reduction for ICT and some problem being faced by ICT sector in the country.

The progress of IGF locally and worldwide was also discussed.

Recommendations included;

1. Recommendations about cyber-crime and cyber security were given by the participants such as undertaking the awareness campaigns concerning challenges being faced by ICT users in

general and their need to be in closer collaboration with all stakeholders in order to fight all this criminalities.

2. The National IGF was also argued to try to work towards more visibility and have more activities in order to promote the Internet governance in Burundi.

3. Also recommended was the increased visibility of ISOC activities in the country.

4. A recommendation of increasing the number of participants in the National IGF meetings was given.

5. The Government as a major stakeholder was argued to pay more attention to the capacity building in regards to the promotion, and usage of the ICT since now most of activities requires the use of ICT by all population,

6. Need to promote the local content and use of local language in ICT was also recommended.

7. A need to harmonize prices in our region was also recommended

Pending issues;

A question of having regional top level domain EAC was raised as it was also raised in previous meetings of EA-IGF. It was felt that the National IGF should convene for another meeting by September 15th before the next global IGF that is taking place next month in Nairobi.

Tanzania Report- Abubakar Karsan

On the future of N-IGF in Tanzania, Tanzania has decided to reorganize and form a national steering committee from state and non-state stakeholders, and contribute towards the organization and hosting of the 2012 East African Internet Governance Forum conference.

What should be done to increase the Organizational efficiency of the Tanzania N-IGF.
1. Integration of stakeholders in ICT in general and expansion of N-IGF base in the country
2. Creation of awareness among various stakeholders

Those are issues that were discussed besides hosing the EA-IGF. Then as highlighted by Habibu from TZINIC a stakeholder of IGF Tanzania the N-IGF discussed also about the good of internet governance and wider economic impact plus awareness of internet governance as a critical issue.

Some challenges were highlighted;
- Domain name and failure of telecenters,
- The availability of a lot of local content that are not being provided online.
- The need to encourage more participation by increasing the sensitization of internet governance from all people liking to the internet such as the government itself, media, end users, and others. As a result to this agreement the multi stakeholder's board was formed to facilitate the sensitization and members were encouraged to use the available internet access point.
- Cyber security was also identified as a critical issue and Tanzanian were quoted to be having acted yesterday not now because we are lagging behind.
- Stakeholders were also encouraged to deploy IPV6, they were also challenged to participate in the EA-IGF and as result three of them participated in Kigali EA-IGF.
- The committee was also given a task to enhance activities of N-IGF in Tanzania so that it isn't quoted as a talking platform but we learn from sharing idea.

Developing a regional security framework and standards to ensure maximum security: UNECA

Cyber security Issues and Challenges in Africa

- Access to the Internet has expanded exponentially in Africa
- Mobile Telecommunications is growing exponentially
- Broadband penetration is very low
- Lack of technologically advanced telecommunications infrastructure
- 99% of all e-mails worldwide constituted spam. "Most of them come from Africa"

Level of deployment of security systems in public and private sectors to combat Cybercrime is low; 6 of the 53 African countries have a national legal framework on cyber crime, Asia: 23 of the 44 countries, Europe: 36 of the 46 countries and South America: 5 of the 12 countries

Level of awareness in the country of ICT-related security issues generally law

The use of ICT's in the region is expected to increase exponentially in all sectors. i.e. e-Government, e-Banking, e-commerce, e- Learning

The United Nations Economic Commission for Africa (UNECA) is addressing cyber security within the framework of African Information Society Initiative (AISI). It advocates coherent and coordinated continental and regional approach to cyber security, as well as enhanced consideration of the issue in national ICT and Information Society strategies and action plans. This includes:

- Information Security Management;
- Standards of Information Security;
- Threats and Attacks to Information;
- Education and Curriculum for Information Security;
- Social and Ethical Aspects of Information Security;
- Information Security Services;
- Applications of Information Security;
- Infrastructure for Information Security;
- Legislation for Information Security;
- Modeling and Analysis for Information Security; and
- Tools for Information Security.

The UNECA cyber security initiative is implemented in cooperation with the African Union in order to arrive at harmonized legal framework, and especially with guidelines on: Electronic transactions; e-Signature / Certification; personal data protection; Cyber security and Cyber crime.

ECA has provided support to most of the Regional Economic Communities (RECs) and to the African Union in contribution to regional integration through implementation of WSIS outcomes. Assistance on ICT for development to RECs is done directly by the ECA Headquarters or incorporated into multi-year programme assistance frameworks and memoranda of understanding between ECA Sub-Regional Offices (SROs) and RECs.

The cyber security taskforce of East African Communications Organization (EACO) consisting of ICT Regulators and Operators of Kenya Uganda and Tanzania, Rwanda and Burundi, was formed in 2008 to coordinate the development and of a cyber security management framework for the EACO region. This task force was tasked with the establishment of national CERTs, coordinating responses to cyber security incidents at the regional level; establishing regional and international partnership; and providing Regional Cyber security Incident Reports annually to the EACO member countries.

With ECOWAS, the following series of guidelines were prepared and adopted either by the Head of States and Governments or by the Ministers in charge of ICT in 2010:

- ECOWAS Supplementary Act on personal data protection in West Africa

- ECOWAS Supplementary Act on electronic transactions in West Africa

- ECOWAS draft Directive on fight against cybercrime

40% have cyber-security laws in place and another 40% are in the process of transposing the ECOWAS and UEMOA text/guideline or developing one. Only 20% have not yet initiated.

With Arab Maghreb Union; a Workshop on Harmonization of Cyber security in North Africa and with SADC was held and an e-SADC Strategy Framework has been developed.

At the African Union, ECA provided substantive support to the Summit, which was held in Addis Ababa, Ethiopia from 31 January to 2 February 2010, on the theme "Information and Communication Technologies in Africa: Challenges and Prospects for Development".

ECA developed the draft African Convention on Cyber security and e-Transactions as a response to the Declaration of the African Union Heads of State and Government of February 2010. This declaration aims at defining the objectives and major orientations of the information society in Africa, and strengthening existing legislation in member States and RECs on the knowledge economy. The draft Convention was submitted to African ICT ministerial meeting held in Abuja in September 2010 and is expected to be reviewed through regional and sub-regional workshops organized by ECA and the African Union in cooperation with key partners.

The African Convention on cyber security and e-transaction defines the objectives and major orientation of the Information Society in Africa, aims at strengthening existing legislation; determines the security rules which are essential for creating a digital space; lays the foundation for cyber ethics in African Union and define the major orientations for prosecuting criminal offenses and combating cyber crime

Agenda for the preparation and validation of the convention on cyber legislation in Africa

➢ *Activity 1: Support for the development of the Regional cyber security harmonization framework at national and sub-regional levels harmonization (policies, laws and regulations)*

➢ *Actvity 2: Sensitization of authorities/private sector/research institutions on the challenges of cyber security and the need for regional cooperation*

  - *Develop sub-regional cybersecurity guidelines & Regional stakeholders*

  - *Validation workshop: November 2011*

➢ *Activity 3: Enhance capacity building on cyber security formulation, analysis and research (2012)*

  - Preparation of specific capacity building and training materials in specific areas

  - Regional workshops on promoting national and regional innovation systems : data protection, cyber security, cyber crim**in**ality , electronic commerce, e—transaction, protection of privacy and personal data,

  - Regional workshops on strengthening Intellectual Propriety Rights (IPR) Institutions and promoting technology transfer within the region;

  - Regional workshops on identification of scientific niches and promoting collaborative R&D program within the region

Recommendations

• Adoption of strong legislation against cybercrime
• Development of technical measures
• The establishment of industry partnership
• Education of consumer and industry players about anti-crime measures
• International cooperation to allow global coordination approach to the problem
• Need harmonization of all cyber legislation projects at member state level and at the level of Regional Economic Communities
• Need for sensitizing, training and involving all stakeholders, including parliamentarians, policy makers, legislators
• Create awareness to implement robust Cyber security frameworks
• Help identify resilient technical measures, appropriate organizational structures and strong laws and regulations
• Facilitate partnerships between different stakeholders to facilitate the flow of information, expertise and resources

Conclusion

- Development of e-legislation both at regional and national level is a reality. ECA continues to assist with partners on:
- Sharing experience between RECs:
- Legal and Regulatory Framework
- Cyber laws and Information Security
- ECA and RECs to cooperate with Governments for the implementation at the national levels
- Encourage to creation of the Africa PKI Forum to share experiences

Country Cyber briefing: Positive Steps and Challenges.

Kenya Report: David Wambua/Grace Githaiga

Kenya has made steps in establishing the regulatory commission under the information and communication act that mandate the communication commission for development and national cyber security frameworks management and as results CCK established a CERT basing on the ITU assessment report, and with collaboration with various stakeholders they are working on the law enforcement, e-government, telecom, academia and others and the progress is quite promising.

Kenya as a member of the EACO cyber security taskforce, which present an initial platform for collaboration among the CERTs in the region; the establishment of East Africa cyber law is ongoing with the process of bringing other countries on board among all Rwanda and Burundi so that the East African cyber framework is established and Kenya as a stakeholder has initiated the invitation process.

Various cyber security are encountered among all an issue affecting MPESA (for instance during a high jacking incidence a personal PIN is revealed and then unauthorized access to the account as a result), an issues that is being addressed and some of the measure taken is the presence of the account owner during the money withdrawing process and he must present his ID card. They are also some loss of Money issues identified through money electronics transfers and the KCERT is mandated to address this issues.

The cyber security and children is also being addressed because the way children are using mobile internet is becoming a threat and the government through the CCK held a two days workshop on child security stakeholder last month in order to address this issue, and as a country the big challenge we are facing is the absence of a nationwide cyber security policy in place, "and I am sure this will be worked on" She added.

Tanzania report: Abibu Ntahigiye – Tznic Manager

A briefing presentation on what was presented in the N-IGF by a lawyer who covered a number of issues affecting the cyberspace. Cyber security is a cross countries issues and as everyone on the world contribute to data and internet infrastructures and DNS the protection is mandatory, and cyber security as a discipline that deals with protection of information against adversaries who want to obtain, corrupt, damage, destroy or prohibit the flow of information.

The government of Tanzania has designed a taskforce within various institutions that deals with problems related to cyber crimes among all the police force, the regulator and entities that deal with prevention and corruption and the Tanzania intelligence and security service and as an update the criminal investigation department of the Tanzania police reported 275 cyber crimes case handle out which 99% were committed in year 2010.

The reason why cyber crime should be discussed is because it is a phenomena that threatens the society and international community and its crime are committed on larger scare than

convention crimes, thus with cyber crimes you can be attacked by anyone around the globe.

Then about how Tanzania deals with cyber security and status of cyber laws basing on common law, there is no legal system at the moment and no specific law on cyber crimes and data, but there some development in making the present laws to cope with implications of ICT and from 2005 we have content regulations in 2007 the evidence act was amended to accommodate e-evidence meaning that if you have an e-mail, that prove a fact to be presented to the court in a case. And in 2010 the act was again reviewed and we have the so called electronic and postal communication act that has a number of regulations which touches the cyber security issues.

A number of international conventions were signed among all an EU convention for cyber crimes of 2001 which covers Europe and he mentioned that some members of ITU are hesitating to support this convention because the ITU itself is also hesitating.

Challenges on legal responses and enforcement as presented are:

- Lack of political will on prioritization of cyber crimes
- Technology have flexible status a way of outfacing even the
- Laws and technologies measure can no longer be limited to national or regional boundaries
- Lack of enough reported cases on e-security
- Lack of harmonized e-laws and policies within the region for instance in East Africa and as results a criminal in one country cannot be a criminal in another country.
- Lack of legal instruments at the East African level
- Lack of awareness among law enforcers and policy makers
- Global nature of the internet with unlimited instructions

Rwanda Report: Didier Nkulikiyimfura, IT Security Manager, RDB/IT

The World Summit on the Information Society (WSIS) in its plan of action line C5 recognises and identifies the need to build confidence and security in the use of ICT's. Rwanda initiated the development of Cyber security mechanisms in line with ITU recommendations: *Organisational Structure, Legal, Technical and Procedural Measures, International and regional collaboration, and National partnership of stakeholders.*

The Rwandan ICT Bill was developed with the following cyber security key issues;

- ✓ Matters of national interest and data security
- ✓ Electronic records, signatures and e-government
- ✓ Electronic Communications
- ✓ Electronic transactions
- ✓ Consumer protection
- ✓ Privacy
- ✓ Computer misuse and cyber crime
- ✓ Cyber security regulations

The stakeholders in the Rwandan Cyber Security domain are; Ministry of ICT; Rwanda Utilities Regulatory Agency; RDB-ICT; Service Providers: Licenses Telecom Operators and ISPs; Civil Society: IGF, ISOC – Rwanda, Consumer's associations and Justice Sector Agencies: Law Enforcement and prosecution

Below are the ongoing Cyber Security Programs/Initiatives

1. Development of Information Security Guidelines
2. Development of Children Online Protection guidelines
3. Setting up a Computer Security Incident Response Team (CSIRT)
4. Establishment of the National Public Key Infrastructure
5. National cyber security public awareness
6. Cyber Security capacity building
7. Collaboration and partnership with regional and international cyber security agencies and organizations

Cyber Security challenges in Rwanda

1. Collaboration and coordination: Coordination and synchronization of efforts for the implementation of Cyber Security programs/initiatives
2. Regulatory and legal framework: Absence of legislations to address cyber Security Issues (Critical Information Infrastructure Protection Act, Information and Communications Network Protection Act, Security breach notification laws, etc)
3. Skills: Lack of critical mass of skilled staff to handle cyber security issues
4. Awareness: Lack of public awareness on the cyber threat

Recommendations
- Adopt an effective legal framework to combat cyber security issues and other misuse of information technology
- Enact enforceable cyber laws in well defined geographical boundaries in our nationals and region of East Africa.
- There is a need of international cooperation in information sharing and investigation assistance.

Strengthening ccTLDs in Africa -research report by Alice MUNYUA – KICTANet

Strengthening ccTLDs in East Africa was identified as a major issue that needed to be addresses at the regional level. This issue emerged during the 2008 and 2009 as the need to reposition of policies and regulatory levels so that there isn't a block between regulatory and policies on the regional and international level.

This research used a lance of consumer protection and it has a descriptive nature. The research was conducted in five countries and questionnaires were passed to ccTLDs community, internet users, and regulatory institutions, in Kenya, Uganda, Tanzania, Rwanda and Burundi. It explores the activities and issues faced by ccTLDs and we think that it will benefit policies making processes especially for the re-delegation currently going-on for Rwanda

The objective of the study was to identify the strength in management of ccTLDs, to look at consumer's issues as related to ccTLDs, to identify criteria for good governance model, identify progress on policies and regulatory issues as well as best practice models on re-delegations and identifying cyber crime committed in the region, and also identifying weither ccTLDs could be used a conduit for cyber crimes at the international level as well as highlighting issues related to access to broadband and internet.

The research targeted registry bodies in the five countries of East Africa, ICT regulatory, ISPs and consumers in each of the five countries, and as it came out the general characteristic of ccTLDs are quite small and none of them can be compared to the international like NOMINet and others, for example Kenya before 2010 had only 12438, Tanzania 5600, Burundi had only 1200, no data from Rwanda because the Rwanda ccTLD is owned outside the country by a Suisse company, and also it came out well that we have less demand in domain names because more internet is used through mobile than fixed network servers,

Two unique cases related to ccTLDs identified were Uganda and Rwanda: **Uganda** because it is owned by an individual and the fact that they have a second level re-delegation [*.co.ug*] and consumers can choose to register as [*.ug*] or [*.co.ug*] but for Rwanda the ccTLD is managed by a Suisse company, the same company that founded and owned the ".br"in Burundi , but for Burundi it was re-delegated last year. This company actually offers domain name registration freedom to all citizen of Rwanda but they charge extremely higher 225 Euros to all foreigners company that want to register with the local domain.

The first finding was contested re-delegation need dramatics stakeholder governance model and as an example the "*.ke*" re-delegation was forced from an individual.

The second interesting finding is that governments play an important role in ccTLDs and that role should be limited to the level of partnership and it is a bit controversial because some people think that governments should not be informed while others think that they should be.

The third finding is a tabulated authority as facilitators of the re-delegation processes of ccTLDs because they are considered as national assets.

Finding four was that multistakeholders of ccTLDs seemed to have received much support from stakeholders as good governance model.

Finding five was a need for capacity building in education programs and all stakeholders including ccTLDs operators as essential measure to enter in participation and operations.

The sixth finding was a need for a local identity and take ccTLDs as an important need for consumers and more should be done to raise awareness at the national market to increase those domain names.

The seventh finding was response to cyber security which suggests that yes it is a critical issues but also the privacy as well to be taken into consideration although it is not well understood by stakeholders even if it is currently a prime target for capacity building.

Finding eighth was the importance of regional and international internet governance organization and the processes and rules in it.

The key issues that came out in this research is that we were proved wrong because last year we agreed that our ccTLDs are not effective but it was proved that they are actually very effective and ready to host future growth and weaknesses available are well known. And good examples are like Burundi where they are planning to increase the participation and Rwanda where they are processing the re-delegation.

It also come out well that they are quite a number of differences on the management and governance level which are not negative or positive, it is only because it came from historical policies and regulations on national levels, and the general direction is always called multistakeholder that increases participation of more stakeholders and as a results we are seeing more African countries beginning to request for re-delegation which is leading to a multistakeholders regimes and Since the ccTLDs are public assets the request of re-delegation must be a responsibility of public authority and local community rather than IANNA contractors or ICANN contractors.

There is no harmonized model in ccTLDs registration though in the East Africa there is a hierarchal domain names structure but it is not harmonized. For instance in Uganda there is a mixed structure which allows registration directly on the second level.

There is also a misconception on how re-delegation are done and the fact that it is very important to really monitor processes that are on-going on the ICANN and IANNA levels, it is very important for ccTLDS to get engaged in knowing those processes to influence and understand them. The fact that ccTLDs are now taking beyond just operating domain names to contribute to broader development which is a quite important factor when you look at this ccTLDs.

Another issue was the definition of local internet community and this view shared by the

governments which is quite difficult to have global definition of global internet community and to know that it is a very important element in the re-delegation process and noting that there is no consistency in what a local community means. For example In Kenya the local internet community means consumers associations, internet service providers, regulators as well as individual users while in other countries it means something totally different. A clear definition is needed and we hope that this EA-IGF will begin to think about one because this will enable a re-delegation that suit our local content in a more intrusive and transparent way.

Recommendation for the study are: strengthening technical operations (important) including the registry system from the global expertise as we heard about implementing the DNS CERT, IPV6, as well as assuring security need redundancy and an increment of bandwidth like in other ccTLDs infrastructures, and then strengthening business operations, defining what local internet community means, coming up with sustainable long terms business operations, ….

The research also recommends that the strengthening must go beyond providing efficient and effective technical and business approach in the domain systems, but it must also get involved in education, begin to provide starting point for online social economic and national development in addition it can even maintain partnership to ensure a healthy ecosystem around all ccTLDs.

The fact that ccTLDs are not just technical, they have a huge impact to the development of internet in the country because they are the broadcaster between international and national policies and governance processes, and they also have responsibility to present local issues on the international level and some of the international policy processes are ICANN and ITU and of course the IGF.

One of the unexpected outcomes that came out in this research is as it is one of the recommendations from last year EA-IGF it is the possibility of coming up with ".eac" a sub-region gTLD, the concern is if the each gTLD is going to strengthen or weaken the regional ccTLDs, so the challenge is to think about it, and see if it is going to weaken them or strengthen them or if they can work together.

New gTLDs and why East Africa should care- Katim Touray; ICANN Board member.

Katim started by giving a brief background for the new gTLDs. He noted that in 1998 - founding documents were established i.e. "The new corporation ultimately should … 3) oversee policy for determining the circumstances under which new TLDs are added to the root system". He further heighted why is there need to expand the Top-Level. Noting that expanding the top level removes existing limitations to ASCII gTLDs which do not   reflect growing internet reality and needs; creates platforms to innovation in the industry and Internet and opens doors to increase choice and competition in the market place

The New gTLD Program is an initiative that will enable the introduction of unlimited generic top-

level domain names or extensions (both ASCII and IDN) into the domain name space.
It is managed by the Internet Corporation for Assigned Names and Numbers (ICANN).

Some of the potential impact of new gTLDs on Businesses highlited includes;
- Opportunity for investment
- More choice and competition
- Platform for innovation; new business model opportunities
- Brand management and online marketing practices
- Impact to industry sectors; security; control; user behavior
- Upgrade systems/applications to accept new TLDs

What is the potential Impact of the New gTLDs on Governments & Communities
- Increase of online cultural, linguistic, geographic communities
- More globally and culturally inclusive internet with IDNs
- It would facilitate creation of Local ccTLDs
- It would enable the usage of local geographic names

What is the potential Impact on Internet Users
- It would create more choice; innovation; competition, inventiveness
It would lead to the creation of online cultural, linguistic, geographic communities
- It would establish new ways to find information, products and services

Why should East Africa care and pay attention to the pursuit for the New gTLD
- The New gTLD would lead to ICT development.
- It would enable safer security measures like the protection of online identity
- It would build business as the world moves towards ICT
- It would build capacities among local companies and institutions
- It would facilitate the development of partnerships with national, regional, and global players

Dot Africa – the benefit of new gTLD for Africa - Koffi

The session was started with a brief history about the dotAfrica domain idea:

a) In their Olivier Tambo Declaration adopted at their extraordinary Conference held in Johannesburg, South Africa, 2-5 November 2009, the African Union Ministers in charge of Communication and Information Technologies (CITMC) acknowledge the necessity to "Establish DotAfrica as a continental Top-Level Domain for use by organizations, businesses and individuals with guidance from African Internet agencies".

b) In their Abuja 2010 Declaration adopted at their Third Ordinary Conference (CITMC-3) held in Abuja, Federal Republic of Nigeria, from 6 – 7 August 2010, the African Union Ministers in charge of Communication and Information Technologies requested the African Union Commission (AUC) to ''Set up the structure and modalities for the Implementation of the DotAfrica project.''

This request followed the acknowledgement of the benefit of the DotAfrica domain name to Africa, by the African Union Heads of State and Governments (HoSG) Summit held in February 2010 in Addis Ababa.

DotAfrica (.Africa) is that specific Internet namespace for Africa and which is likely to be endorsed for operation during the next round of new gTLDs which ICANN launched on the 20th June 2011.

Why a specific continental gTLD for Africa

- The gTLD would bring focus on the African identity
- It would promote the multicultural and vibrant community in Africa
- The dotAfrica domain would provide registrants with accrued possibilities for establishing their Internet presence
- Commercial entities will greatly benefit from DotAfrica as they thrive beyond their local markets to invade the regional and continental marketplace.
- It would create an attractive regional home for the Pan-African Internet community.
- Internet will become a platform for business growth in Africa. dotAfrica (Africa) will be the first sponsored registry to be operating from Africa and therefore will serve the specific needs of the African community.

THE ARC (African Registry Consortium) has played an integral role in the success of the co.za domain name space (more than 700,000 domain names delegations), including the establishment and maintenance of technical systems and the development and enhancement of registry policies and procedures. Convergence Partners, strategic, value-adding investment company focused on the technology, media and telecommunication sector. The Company was formed in May 2006, with a portfolio in construction since 2004 and is the exclusive investment vehicle. Key focus areas for investment are communications infrastructure for the African continent and other emerging technology areas. Companies involved in Internet and registry sector like Synergy Group Africa, in kenya and Khewell in Senegal

Proposed Business Model: General Overview:

- Establishment of two regional (African based) organizations, namely the African Registry Corporation (Operating Company) and the dotAfrica Foundation (not- For-profit or trust)
- The purpose of ARC is to provide operational capacity building and readiness from the start. The sole shareholder of ARC (the Foundation) becomes the delegated authority for the gTLD.
- ARC would operate in terms of an approved operating budget. All surplus funds to be transferred to the shareholder for distribution towards African based ICT development initiatives and organizations (Regional Development Projects).
- There would be need to appoint an International Registry Partner. Tri-Party Agreement to be established between ARC, the Foundation and IRP.

Proposed Business Model: Regional Overview:

- The Foundation is the sole shareholder of ARC.
- ARC conducts its business in line with an annual operational budget approved by the shareholder. Any substantive deviations from the operational budget must also be approved by the shareholder at a special meeting.
- Surplus funds (or profits) flow to the Foundation for distribution to worthy regional projects and organizations. Surplus funds to be transferred in terms of a formal dividend policy which will seek to balance operational capacity with the need to funnel funds to development projects.
- Transparency and good governance are an absolute requirement for the conduct of both organizations.
- A Policy Advisory group can be established as a (sub) committee of the Foundation in order to advise on policy matters affecting the dotAfrica domain and possibly other related regional ICT issues. African based Registrars can play a meaningful role here.

Proposed Business Model: ARC Overview:

- The purpose of this organization is to provide operational capacity building and readiness (within Africa) from the start.

- Registry Operational structures to be established from the start in Africa. These structures to mirror the International Registry system with the view of improving Africa's readiness to assume full operational responsibility for the dotAfrica registry function.
- ARC founding members to provide initial operational structures and environment. Board to be appointed by the shareholder (Foundation). CEO to be appointed by the Board.
- The technology to be employed is the EPP system employed for CO.ZA, developed and maintained in Africa by Domain Name Services (Pty) Ltd. Technology deployment and use to be agreed on suitable, mutually beneficial commercial terms.
- The primary roles and responsibilities of ARC will be to (at own cost):
  1. Establish a regional technology platform;
  2. Establish regional registry operational capacity;

3. Develop, promote and integrate with African RARs;
4. Conduct and administer PR and marketing campaigns; and
5. Establish and maintain reporting & compliance processes.

ARC is also prepared to dedicate certain resources (at own cost) to the administration of this project, especially through the AUC and ICANN application phases.

The board of the Foundation to be established in accordance with memorandum of incorporation. In essence the board should be representative of the broader African region and of relevant stakeholder groups.

The primary concern of the Foundation is to: Ensure compliance by the registry of its mandate, roles and responsibilities; Appoint the Board of ARC; Identify and engage with suitable regional developmental projects and organizations with the view of providing financial and/or other assistance where possible; Coordinate the establishment of a Policy Advisory Committee to address policy development on the dotAfrica project, including other related regional ICT issues; Represent the interests of the dotAfrica project (gTLD) to the international community; Report to and liaise with regional, national and international governments on the progress, challenges and benefits of the dotAfrica project.

The Open and Collaborative Internet Model: How the Internet community works together and why it matters- Ms Christine Runnegar; Senior Manager, Public Policy ISOC

Miss Ruunegar stressed the importance of establishing a "Collaborative" system of working together to obtain a common target, meaning working together to achieve a goal, which is one of the main goals of the Internet Society. Before focusing on the region, she highlighted the description of internet models as a terms used to describe a common set-up of operating values shared among many key communities and organization centered to development and organization of internet including open technical standards, freely accessible process from technologies and policies to development, transparence and the ability to communicate, share, create and innovate as well as build and reach communities, express culture, lingual and social identity; she highlighted the importance of such opportunities.

The role of internet as a global platform for innovation and community development and social progress is threatened when government institutions present extensive influence on evolution and use of internet technologies. The countries that wish to benefit from internet and anticipate in the global economy must ensure that their citizens have access to information content and importantly as we have today the opportunity to create and share content.

One example of East-Africa projects undertaken under the Internet Society community grants program one is the "Internet Solar Power Key Access" for the Massai community in Kenya.

Another is The Computer Training and Internet Access for teachers and students for kigoto High School in Uganda. Other ones are enabling the people of Banda to access the internet, internet technology for St Paul girls' school in Uganda. Another project is about Women and cybercrime in Kenya and advocacy to contribute to the development of cyber space and regulatory frameworks in Kenya in order to provide safe security space for women to exercise a large communication without fearing harassment and abuse and violence.

Miss Christine also introduced a project that is being championed by Chris Mulola the Vice President of ISOC Chapter in Rwanda" the DOTs Program for Africa" with an aim to increase the ICT penetration in Rwanda by helping Children learn and teach others ICT skills starting at very young ages.

She concluded by calling all stakeholders to take advantage in becoming more involved in internet community organizations by participating in the development of Internet standards, discuss issues of internet intersections, and government institutions partnering in decision-making activities. She encouraged all East Africa Countries to strive for being international leaders in multi stakeholders internet policies development and urged everyone to consider this as a great opportunity to define commitment or renew our commitment to have collaboration within and outside East Africa so that the communities within this region that may be affected by decisions concerning internet are able to participate in the development and implementation of those decisions.

Progress on Transitioning to IPv6: Challenges and strategies for East Africa by Esther Wanjau

East Africa as a region still faces the challenge of embracing the IPv6 transition as the number of devices currently being used to connect to the internet keep increasing. She emphasized that whichever way we look at it, IPV4 has no future in internet. The solution lies in the rapid adoption of IPv6.

IPv6 offers many advantages over IPv4. Some of these are; solving IP address depletion; solves the international address allocation problem; restores end-to-end communication; more efficient forwarding; built-in security and mobility and uses scoped addresses and address selection

She highlighted the most notable and advantageous feature of IPV6 ass its wider address space. While IPV4 uses 32 bit addresses, IP v6 uses a 128 bit address which offers much more address space. This is complemented by the Automatic IP- generation capabilities of IPv6. Any device can be connected to the internet. E.g. fridges, TVs, etc. IPv6 is Ubiquitous.

While giving a case study about the *Kenya IPv6 national Task force,* Esther noted that Kenya's IPv6 taskforce was formed by the Permanent Secretary, Ministry of Information & Communications (MoIC) on the 13th of August 2008 as a multi stakeholder partnership. There is representation from Government, Private Sector, Civil Society, Academia and Industry. Its main mandate is to develop strategies for the eventual nation-wide deployment of IPv6.

Its vision is to develop policies and guidelines to make the country achieve a nationwide transition to IPv6 by 2012. The mission is to explore the required milestones leading to the eventual nationwide transition to IPv6 by 2012.

The Taskforce focuses on the following key areas: Awareness creation; Capacity building and skills development; and Research and Policy development

The terms of reference of the Taskforce are Developing a strategy for IPv6 awareness in the areas of technology, policy and business; developing an IPv6 capacity building strategy; Identifying suitable transition mechanisms and Identifying and driving projects in IPv6 product development among others.

Over the last few years, the task force has had the following achievements; i.e. held several IPv6 training workshops at the KENIC offices and liaising with the Kenyan Standards Body (KEBS) to ensure that equipment being procured in Kenyan market is IPv6 compliant. **The Recommendations of the Task Force are**

- The immediate commencement of procurement of IPv6 capable products in Government;
- That Internet Service Providers (ISPs) to government shall make available IPv6 services native in order to support the large number of mobile devices;

- Internet content and applications shall be reachable using both IPv4 and IPv6 (Dual-Stack environment);
- The industry should be made aware of the impending migration in order that they are able to offer support to equipment and software;
- Establishment of a Government Centre of Excellence to create IPv6 awareness by training, educating, advising and sharing of best practices.
- Ministries to review current programmes and upgrade to ensure IPv6 compliance.

Conclusion:

The IPv4-IPv6 transition process requires multi-stakeholder involvement, participation and support. Due to the nature of the different technologies used by ipv4 and IPv6, the same devices cannot be used for both versions, and transition of IPv4 to IP V6 requires the adoption of the Dual stack protocol and the tunneling method.

East Africa stands to benefit a lot if we support and facility a rapid IPv4-IPv6 transition.

ISOC's Interconnection and Traffic Exchange program - Michuki Mwangi - Senior Education Manager, ISOC

This program is about fostering a ubiquitous, reliable, and sustainable Internet in Africa that will propel the continent's aspirations in economic and social development. Its target is to create an Africa that's not just an "Internet Consumer" but an "Internet Creator," on par with the rest of the world. However, it requires a robust, efficient, and cost-effective interconnection and traffic exchange landscape in Africa to achieve it. The Interconnection and Traffic Exchange programme main goal is to foster this environment in conjunction with partners. Hence there is need for multi-stakeholder commitment, development and capacity building of Internet Exchange points.

Current issues that need immediate attention include;

1. More focus on cross-border issues which affects ICT policies should be addressed

2. Need for a major shift in Internet use to more data-intensive Internet consumption (Video, P2P, etc.). This has a big impact on network planning, bandwidth management issues.

3. Lack of adequate hosting infrastructures i.e Data centers/Collocation Services. Only South Africa has carrier Neutral DCs

Africa Peering and Interconnection Forum (AfPIF) is an avenue for Internet Service Providers, content providers, governments and education networks to explore interconnection and peering opportunities in the region. The forum further offers opportunities to exchange ideas and learn more about the global trends on interconnection. There are efforts to building an active online presence through the AFPIF portal www.afpif.org and the AFPIF mailing list. An in inaugural AFPIF event was held in August 2010, Nairobi – Kenya, attracting over 80 participants from 20 countries including Europe, America and Asia. The 2nd AfPIF was held in August 2011, Accra, Ghana- attended by 100est participants from 27 countries including Europe, America,

Asia and Latin America

However, it remains fairly difficult to analyze peering data in Africa. For example, only two 2 IXPs collect and archive data i.e. Kenya Internet Exchange Point (KIXP) and Johannesburg Internet Exchange Point (JINX) through the Route views project. However, there are still very few networks from the African region listed on the Peering DB. Despite this, there are ongoing discussions to develop a regional route-views project to provide peering data from IXPs in the region.

Citizen Empowerment through the Social Use of ICTs- Grace Githaiga

Abstract: *Internet-based communication has been gaining importance. The much rapid spread of mobile connectivity and services, as well as different forms of public and shared internet access, allow a growing number of people who may not have access to a computer or a fixed connection to take part in "the global conversation"*

Grace started by mentioning that social networks such as Facebook, Twitter and YouTube are amongst the most visited websites in Africa. Such Social networks are primarily used for personal communication and self-expression.

However, the personal becomes political when people use new media to address critical, oppositional or taboo issues publicly. Some examples where ICTs have been used for citizen empowerment are;

1. During the most recent Ugandan elections, citizens could share observations by sending text messages and access information from a variety of sources via Ugandawatch2011.org. Reports included election progress reports, successes and abuses as well as questions. The messages were reviewed and validated by a team of trained reviewers employed by the Democracy Monitoring Group (DEMGroup). Ugandans received phone messages urging them to visit for Museveni.

2. During the Nigerian elections in 2011, a similar project using FrontlineSMS and Ushahidi called Reclaim Naija one tool employed to prevent and report election fraud and engage citizens.

3. In Kenya, Bunge La Mwananchi pressure group organizes and engages in issue-based politics online and offline. The group has a website, facebook group, twitter and YouTube platforms. There is also the Unga revolution which has been founded on facebook and twitter and its activities are largely organized and communicated on these social sites (protests on high food costs, Minister of Education were organized through social networks).

4. Ugatuzi: this is a Budget Tracking Tool that was initiated by the Social Development Network to provide a collaborative platform for grassroots communities to proactively engage in public resource management. The tool ensures accountability from government and parliamentarians by providing information and a means for communities to ensure efficiency in service delivery. It is a web-based tool developed on purely Open Source technology.

5. During 2011 Kenya's budget process, the Minister of Finance got over 3000 messages via facebook and twitter on budget ideas.

6. At KICTANET, policy debates on various issues e.g. Ndemo for President Debate. At a social level, a lot of people are using social sites and texts to solicit funds for hospital bills, causes etc.

Government Response to the social use of ICTs for citizen empowerment;

The government reactions to social use of ICTs are mostly positive, apart from cases where the governments have considered this use a "threat". Examples of this negative response are;

− In April 2011, Uganda's Communications Commission (UCC) ordered internet service providers to block Facebook and Twitter for 24 hours during the "Walk to Work" protests against spiraling food and fuel prices.

− In February 2011, 45 people were arrested and charged with treason in Zimbabwe for watching recorded news coverage of the uprising in Egypt4.

Governments should encourage the use of Innovative tools for dynamic forms of communication altering the way information is circulated and shared.

Sites and services have been recognized as important tools for distributed reporting, raising awareness, enabling democratic participation, and engaging a broader public sphere e.g. KICTANET enables democracy/allows citizens to contribute to policy making.

 The benefits of social use of ICTs identified included; it allows interaction, creation and sharing of information where users are also producers ("pro - sumers"); allows for crowd sourcing on different issues and enables access and participation.

Promoting Research and Innovation in ICT Sector -Chante Kumaran; Kigali Institute Of Science And Technology

Mr Kumaran emphasized the need for local and global partnerships in the area of ICT research and he highlighted the benefits resulting from such partnerships to include;

- Translating research findings into commercial products; Job creation; Innovative training, courses for the participants; Facilitate interchange of students, lecturers between universities; Source for additional funding;

He noted the role KIST was playing in promoting research and innovation in the ICT sector, in Rwanda. Some of the highlights were;
- The MIT-AITI trainings on mobile application lead to the development of innovative developers
- Training on monitoring and evaluation of ICT projects
- The ITU regional Academy
- The KOICA training on mobile service networks
- The WWW Foundation promotes entrepreneurships and commercialization of

innovations.

He gave his recommendations to improve innovation and research

- Increase partnership with the business community

- Establish a forum to student participation in all ICT related issues and policy making

- Provide grants for research and innovation

- Invest in the development of effective research infrastructure.

In conclusion, Mr. Kumaran called on the Private sector and the government to facilitate and support research initiatives as they would play a major role in increasing the adoption of ICTs and development of innovation in the region.

Speeding up ICT penetration in Africa through Children – DOTS program awareness campaign by Annaise Ruzima; – Maisha Consults Ltd

The DOTS Program is a local initiative by the ISOC Rwanda Chapter in conjunction with local partners and it focuses on the involvement of children and youth in the ICT awareness campaign.

Senator Wellars Gasamagera called upon all participating organizations, institutions and members to facilitate such initiatives especially those targeting the children and youth since they are the future professional of tomorrow.

Reviewing of the EA-IGF framework

National Coordinators called for the need to strengthen the management structure of the EA-IGF. While citing examples like the ISOC framework, members felt that the EA=IGF needed to have a structure that can be used to influence policy changes at the regional level. Further calls to review current status of the EAIGF management model and what members would like to achieve from the forum was called for.

EAIGF: Way Forward by Alice Munyua; Convener EAIGF

Alice Munyua, in her closing remarks noted that increased member states participation in the Internet governance Forum issues was of critical importance. She noted that ICT was developing at different levels among the East African states, and yet the purpose of establishing the East African Community was to promote uniform growth across the region. She highlighted that some important aspects like cyber security were still being given minimal attention and yet these were very important aspects of ICT development in each state.

Alice called on the participants to increase their participation in policy making and contributions. Additionally, she called on the National IGFs to be active in forums that can be used as a way of channeling the countries' issues to organizations and policy makers.

Closing Remarks - Senator Wellars Gasamagera

In his closing remarks Senator Wellars Gasamagera, highlighted some of the most important issues discussed during the conference and urged members to continue the hard work even after the conference.

Visit to Memorial Site

The final activity of the conference was a visit to the Rwanda Genocide Memorial Site.

End of the Conference: Friday 19th August 2011 at 7:30 PM local time [5:30 PM GMT]

Appendix

EXHIBIT: Conference Gallery

EAIGF 2011 Sponsors