



# KICTANet

Online Discussions on the  
CCK Internet Study

eDiscussion Report

April 23<sup>rd</sup> – May 11<sup>th</sup> 2007

## **Acknowledgments**

I wish to thank KICTANet (Kenya ICT Action Network) for giving me yet another opportunity to moderate an eDiscussion. This discussion focused on the Internet Study Report commissioned and published by the Regulator, Communication Commission of Kenya (CCK). I must acknowledge and thank the Consultants who carried out the Internet Study for providing the base content for the discussions. Finally, I must thank the eParticipants for their time and effort in sustaining such lively and insightful electronic debate.

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## Executive Summary

The liberalisation of the Kenyan Internet Sector, particularly at the Internet Gateway level has not had the expected impact on the Kenyan Market. Specifically, the Internet indicators such as Affordability, Dispersion and Usage have not changed as significantly as expected. In view of this, the Regulator, the Communication Commission of Kenya (CCK), commissioned an Internet Study to establish the status of the above indicators as well as their corresponding reasons and limitations. The Regulator published the results of the Study and this was taken up by KICTANet for further (online) deliberation.

The Key Discussion points were borrowed from the Consultant Report and included but not limited to **Network Infrastructure**: The indicator that established the structure and quality of the International and National (domestic) Internet backbone across the country, **Internet Tariffs & Affordability**: The indicator that established the capacity of consumers to afford the Internet Services and **Dispersion**: The indicator that established the geographic reach and sectoral absorption of the Internet Service.

In discussing the Internet Study Report, particular emphasis was laid on raising awareness regarding the state of the Internet industry in the country and understanding the underlying reasons behind the current state. In addition, the recommendations given within the Internet Study Report were presented and subjected to peer evaluation in terms of practicability and /or ability to resolve the particular issue addressed.

The discussions revealed that whereas the quality and service on Internet within the country had been largely blamed on ISPs, there was some elements of Regulatory failure to police the Internet Market and ensure that the key players Internet Gateway Operators (IGOs) and the Internet Service Providers (ISPs) operated within their stipulated licensing terms and conditions. The Internet Market was currently in a state of anarchy where IGOs were retailing directly to consumers while ISPs were busy building their own networks – thus duplicating if not conflicting effort and failing to leverage on the economies of scale in terms of Bandwidth aggregation.

Other notable insights included the role of Government in facilitating the provision of both the Domestic and International fiber backbone Infrastructure. Whereas some members felt that such interventions would present unfair and hostile competition to the Private Sector, most believed that the intervention was long overdue particularly if implemented on an Open Access basis - thus allowing for Private Sector participation. This was seen as the solution to the dual problem of Accessibility (Dispersion) and Affordability.

## **Introduction**

### ***Background***

The liberalisation of the Kenyan Internet Sector, particularly at the Internet Gateway level has not had the expected impact on the Kenyan Market. Specifically, the Internet indicators on Affordability, Dispersion and Usage have not changed as significantly as expected. In view of this, the Regulator, CCK, commissioned an Internet Study to establish the statistical status of the above indicators as well as their corresponding reasons and limitations. The Regulator published the results of the Study and this was taken up by KICTANet for further (online) deliberation.

### ***Program Setting & Description:***

In discussing the Internet Study Report, particular emphasis was laid on raising awareness regarding the state of the Internet industry in the country and understanding the underlying reasons behind the current state. In addition, the recommendations given within the Internet Study Report were presented and subjected to peer evaluation in terms of practicability and /or ability to resolve the particular issue addressed.

### ***Program Design (Data Collection, Data Processing)***

#### *Data Collection:*

The Online Discussion was structured along the following themes that were discussed electronically over a period of 2 weeks according to the following schedule:

- Internet Study-Background Concepts/Overview – 1day
- Internet Study-International & Domestic Bandwidth Usage – 1day
- Internet Study-Hierarchy of Providers (IBP,ISP) – 1day
- Internet Study-The Statistics on Infrastructure – 1day
- Internet Study-The Statistics on Affordability – 1day
- Internet Study-The Statistics on Dispersion – 1day
- Internet Study-The Impact of the Recommendations-3days
- What is the way forward/Conclusions – 1day

The Online discussions were geared towards having a face-to-face workshop in order to consolidate and conclude on the electronic deliberations.

#### *Data Processing:*

The various contributions from the Participants were analysed and collated into a Final report. This report seeks to inform Stakeholders, and in particular Policy Makers and Regulators in their decision making process with regard to improving on the Internet Indicators in the country.

**Aim:** To use Online tools as a means of investigating and discussing issues surrounding the Internet Market in Kenya.

### ***Objectives***

The Objectives of the exercise included:

- Appreciating the Levels of Internet Use & Penetration in Kenya
- Understanding the reasons behind the prevailing levels of Internet Use & Penetration
- Interrogating the Recommended Interventions for improving Internet Use and Penetration
- Promoting discussion and consensus regarding the Recommendations

### ***Main Outcomes/Deliverables***

The key outcomes of the exercise included:

1. Summarised eParticipants contributions
2. Final Report for subsequent submission to the Ministry of Information & Communication, the Regulator and other Stakeholders

### **Tools**

Online Tools (email, listserver, internet)  
Brainstorming Techniques/Aids.

### ***Resources.***

Moderator (Online)

Participants (Online)

Web Resources:

[http://www.cck.go.ke/internet\\_market\\_study/](http://www.cck.go.ke/internet_market_study/)

listserver(kictanet) archives

## **eDiscussion Proceedings (2 weeks Discussions)**

### ***Theme 1 – Background Concepts/Overview – 1day***

#### **Planned Activities**

- Internet Study-Background Concepts/Overview – 1 day.

#### **Contributions**

**J. Walubengo, the Moderator** invited the eParticipants to the session and gave the following introductory background, saying that this would serve as the working document for the rest of the online deliberations.

He said that the Regulator, CCK had commissioned Netcomm Information Systems (the Consultant) to undertake a study to establish amongst others, the following Internet indicators within the Kenyan Market:

1. The Internet service diffusion and usage patterns in different sectors of the Kenyan economy
2. The general Internet service costing mechanisms employed by operators and service providers
3. The key factors that hinder Internet market development
4. The vertical and horizontal relationships of the Internet market in the country

In carrying out its terms of reference, the Consultant held several roundtable meetings with key stakeholders selected from the Government, Telco-operators, Internet Service providers and Consumers. The Consultant administered questionnaires which revealed the following key findings -categorized under Network Infrastructure, Internet Affordability and Dispersion as described below:

**Network Infrastructure:** This indicator establishes the structure and quality of the International and National (domestic) Internet backbone across the country. It was found that following the liberation of the telecom sector to allow more players at the International Internet Gateway Operator (IGO) level, there has been a steady increase in the International Bandwidth capacity-currently at 1G and representing over 10% growth since 2004. However, the domestic Internet capacity continued to register limited growth, despite the availability of the local Internet Exchange Point (KIXP).

**Internet Tariffs & Affordability:** This indicator establishes the capacity of consumers to afford the Internet Services. It is taken as a factor of the gross national income, in other words, the average cost of 1 month Internet access measured against the average monthly salaries. It was found that internet service via mobile phone was much more affordable (costing 8% of average monthly incomes) as compared to via fixed lines (costing 200% of the average monthly incomes). This was despite the falling rates of International Internet Bandwidth occasioned by competition at that level.

**Dispersion:** This indicator establishes geographic reach and sectoral absorption of the Internet Service. In essence it describes the e-Readiness status of the economy or for the Country. It was found that even though ISPs were present in all the 8 Provinces, they were hardly present at the districts level – covering only 30% of the districts in Kenya. In addition, of the three key stakeholders, Government, Educational and Commercial, the Commercial sector had the bulk of the existing Internet Connectivity (80%) while the Education Sector had the lowest (less than 2%). Finally, of the estimated 2.8 Million Internet users in the country, 80% are in the capital city Nairobi, 9% in Mombasa and the rest (11%) are spread across the country.

In attempting to improve the above bleak indicators, the Consultant made the following key recommendations:

**Network Infrastructure:** That the Government and the Operators make a deliberate effort to extend the domestic Internet backbone through out the country. In addition, that the current license separation between the Internet Gateway Operators (IGOs) and Internet Service Providers (ISPs) be dissolved by combining their services into one license-the Data Communication Network Operator (DCNO) license. Finally, that the Regulator should publish and enforce quality standards in the provision of the Internet Services.

**Internet Tariffs & Affordability:** That the Regulator, introduces competition in the Fixed Telephone line service and a flat-rate tariff or volume-based model for dial-up internet services. Also, that despite the relatively cheaper Mobile internet services, further competition be introduce within the sub-sector to further drive down the rates.

**Dispersion:** That the Regulator reviews and implements the Universal Access strategy, enabling Operators to extend Internet Broadband services to ‘non-economical’ rural areas in order to serve in particular educational and health institutions. That the Universal Access fund be utilized in promoting and creating local content in order to stimulate demand and usage. Finally, that the Regulator promotes Consumer Awareness programmes while the Government concludes and enacts the necessary legislative framework for supporting eCommerce uptake.

**Mr. Walubengo** then welcomed the eParticipants to make their general and introductory remarks. **Mr. A. Gakuru** lauded the Study as well as its recommendations but noted that a similar study would be required that focused on the demand-side rather than the Supply-side of the internet market. He was glad that the Regulator was finally making deliberate efforts to support consumer awareness initiatives. He wondered if naming and shaming those ISPs that failed to route traffic through the local internet exchange point (KIXP) would help in enhancing the use of KIXP.

## **Theme 2- International & Domestic Bandwidth Usage – 1day**

Planned Activities

- International & Domestic Bandwidth Usage – 1day

### **Contributions:**

**Walubengo** made the following introductory remarks before welcoming members to make their contributions on the days' Theme. He said that the Internet Study had established that of the about 1G International Bandwidth only 10% is OUTBOUND while 90% is INBOUND. What this meant was that Kenya is a net IMPORTER of internet content. In internet economic terms Kenya was therefore a Consumer rather than a Generator or Creator of internet content - which was a bad thing since Value is always retained by those who generate rather than just consume internet content i.e. the exporters of internet content.

He added that if put in another way, all the International bandwidth (KDN, Jamii & others) buys (imports) on behalf of Kenya implied that someone in the Northern hemisphere was getting paid for it -wouldn't it be better that KDN, Jamii and others got to sell (export) the same amount of bandwidth to consumers in the North and got paid instead? What can be done to make that to happen? Are the recommendations in the report sufficient to address this imbalance? After posing these questions, he opened the floor for reactions.

**Mr. M. Michuki** observed that most Kenyans visited external sources due to lack of local content. He suggested that ISPs should come up with pricing models that encouraged the creation of and access to local content. For example, geo-specific tariffs could be designed that would deliberately make it cheaper to access local (.KE) content i.e. users could be charged less if and when they accessed or used local services(local websites, emails, etc) as opposed to foreign services. In addition, ISPs could come up with time-based tariffs that took advantage of the traffic models registered on the KIXP i.e. provide even lower rates for local content during evenings and weekends. He however conceded that Online Government Services, eHealth, eBanking, eLearning, etc would have to be in place in order to make such pricing models successful. **Mr. J. Ngunjiri** added that training or capacity building initiatives must also be supported to further guarantee the success of the initiative.

### **Theme 3 – Hierarchy of Providers (IBP,ISP) – 1day**

#### **Planned Activities**

- Hierarchy of Internet Providers (IBP,ISP) – 1day

#### **Contributions:**

**Walubengo** made the following introductory remarks before welcoming members to make their contributions on the days' Theme. He said that the days theme dwelt on the question of Internet Gateway Operators (IGO, the Wholesalers of Internet Bandwidth) visa vis the Internet Service Providers (ISPs, the Retailers of Internet Bandwidth).

He indicated that the Report recommended that the separation or distinction between The IGOs and the ISPs be dissolved. This was because the current structure for Internet Provision based on IGO then ISP then Consumers was considered unnecessarily too long. Apparently the ISPs as we know them today were not adding any significant value - instead they were adding cost to the service and probably degrading the quality of the Internet eventually delivered to the Customers.

The Report recommended that cutting down the middle-man (ISPs) may offset the consumer costs while increasing the quality of the internet eventually delivered. Walubengo posed the following questions as he invited comments and reactions: Is this assumption and recommendation valid? Does allowing IGO to directly deal with Consumer result in cheaper Internet Services while improving on the quality of the Internet?

**Lucy Kimani** wondered if IGOs would be able to cope with the technical and administrative overheads experienced by ISPs such as a larger number of customer accounts, increased need for support services, etc. She added that the cost of services may not come necessarily come down as expected due to the need to cover such overheads. **Mr. Walubengo** cited the case of TKL (Telkom Kenya) who are currently operating at both the Gateway and the ISP level without significant cost reductions in their Internet Service.

**Mr. S. Buruchara** felt that historically, ISPs have had a rough time in trying to set up their own Internet Gateway Operations - having been forced by regulation to route their traffic through expensive and monopolistic Internet Gateways. He argued that if the upstream providers (IGO) were expensive, it was only natural that these costs would be passed downstream to the consumers. In addition, he noted that even to date the Licensing requirements were still prohibitive (expensive) for ISPs to move into the IGO level and if they did, they may need to recoup their (Licensing & other) investments at the expense of offering cheaper Internet Access rates. **Mr. Kai Wulff** commented that giving ISPs the IGO facilities may not necessarily reduce prices, citing the case of Uganda where internet costs are still high despite many ISPs having IGO facilities.

**Joseph Mucheru** felt that the Internet Market Structure had not been sufficiently regulated to ensure the players (ISP & IGO) kept to the terms and conditions of their license. He pointed out that whereas the current licensing regime stipulates that IGO do not do direct retail to consumers, this was not the case in practice. ISPs were also not expected to build their infrastructure since they were expected to lease capacity from the PDNOs – but this was not the case in practice. Mucheru said that the industry had deteriorated to a level where all players are doing everything and anything to for profit gain and it was costing the country in terms of failure to leverage on the economies of scale – had the licensing terms and conditions been adopted. Basically, Trust between IGOs, PDNO & ISP has been lost, making it very difficult to build economically efficient Internet Networks. **Eric Osiakwan** agreed by adding that the duplication of effort by the players results in enormous costs that are eventually dropped onto the Consumers.

## ***Theme 4 – The Statistics on Domestic Infrastructure – 1day***

### **Planned Activities**

- The Statistics on Infrastructure – 1day

### **Contributions:**

**Walubengo** made the following introductory remarks before welcoming members to make their contributions on the days' Theme. He said that the days theme would take a look at the domestic (internet) infrastructure. The Report indicated that even though ISPs were present in all of the 8 Kenyan Provinces, they were hardly present at the Districts level – covering only 30% of the districts in Kenya. Further, the Report indicated that ISPs operated a total of about 3,000 leased lines (mostly concentrated in Nairobi & Mombasa). In addition, there was a total of 400,000 dial-up lines in the country though the Report was silent on whether all these dial-up lines were hooked up on the Internet or not. Finally, the Report lamented over the local Kenya Internet eXchange Point (KIXP) continued registration of low volumes indicating a low domestic Internet use.

In its recommendation, the Report urged the Government to take charge and drive the build up exercise of extending the domestic Internet Infrastructure. In concluding, **Walubengo** asked members whether this would sufficiently address the poor penetration of the domestic Internet Infrastructure or if there maybe other interventions.

In her reaction, **Alice Munyua**, said that a comprehensive, multi-pronged approach must be made to avoid having infrastructure that would eventually serve no purpose. Aggressive infrastructure build up without content would be an exercise in futility since the internet pipes would be idle and underutilized most of the time. She added that additional initiatives such as Construction and Supply of Electrical Power, Literacy Initiatives, Local Content and 'Demand-side' Internet Requirements must move side by side with the infrastructure roll-out.

## **Theme 5 – The Statistics on Affordability – 2days**

### **Planned Activities**

- The Statistics on Affordability – 1 day

### **Contributions:**

**Walubengo** made the following introductory remarks before welcoming members to make their contributions on the days' Theme. He said that Affordability was a subjective term given that what is considered cheap by the Bill Gates of this world was probably not so for the average Kenyan on the street. In trying to get an objective measurement for affordability, the Report had pegged it on the national average incomes. In other words, if the monthly average income in Kenya was around 100USD and if the average monthly cost for internet access was also around 100USD then obviously the average Kenyan will not bother with accessing the Internet - it would basically be beyond their means or too expensive that is un- affordable.

The Report had further indicated that access through the more convenient Internet Dial-up/Desktop services costed over 200% the average incomes (too expensive), while the same access through mobile phones was costing just 8% of the average incomes (quite affordable). He concluded his opening remarks by posing the question: What needs to be done in order to make Internet Services more affordable to Kenyans?

**Mucheru** said that the main obstacles towards affordable internet services included the costs of the equipment, namely Modems, Satellite dishes, the PC and Installation Costs. However, given more users, these costs are likely to come down.

**Kai Wulff** felt that the key thing to bringing down internet costs lay in developing local content- thus reducing the need to rely on international (external) content which in turn implied buying international bandwidth. **Joan Walumbe** said that awareness of Internet benefits particularly for the rural communities was necessary to create demand. **Fatma Bashir** agreed with Joan's observation and added that there was a need to build information centers in the rural sector that could informally train users on the Internet. She commended **KDNs** initiative to link secondary schools to the Internet, saying that it would create a virtuous cycle where parents, their children and entrepreneurs can simultaneously benefit from the Internet.

However, **James Rege** cautioned that Fiber alone could not address the Access component and other technologies will need to be adopted for the last mile, such as WiMax, Wifi, Satellite amongst others. **Florence Etta** said that last mile solutions had a complex web of actors, services and possibilities and should be well planned and provisioned – preferably with support from cheap sources of funding such as the African Development Bank (AfDB)

**Njenga MP** said that considering most rural families lacked significant disposable incomes, it would be better to serve them using the Universal Service Fund which would subsidise their communication costs. But **Wainaina Mungai** argued that the rural community is actually not so financially indisposed particularly if their uptake for mobile telephony was anything to go by. He said that given the right access that focused on value-adding activities for their rural lifestyles, their Internet uptake will easily exceed expectations - along the same lines as their uptake for mobile telephony has.

**Dr. Bitange Ndemo** felt that one way of making services available was by government providing the infrastructure on Open Access basis. He cited the case of the domestic link between the two Cities of Nairobi and Mombasa saying that the cost of bandwidth on this route was exorbitant despite the existing competition. **Kai Wulff** argued that the cost of the service was a function of usage and prices would essentially go down once usage picks up. But **Brian Longwe** interjected by saying usage was also a function of price, thus presenting what **Eric Osiakwan** referred to as the classic chicken and egg problem. In such a case, Eric said, it is always better for the Private Sector to take the business risk of adopting what **Dr. Ndemo** referred to as the concept of low prices high volume business models.

**Michael Joseph** reminded members that it was worth noting that pricing was not the only key factor but service delivery, reliability, availability need to be considered. In general, industry standard Service Level Agreements (SLAs) that would encourage Operators to lease more bandwidth capacity from the upstream providers were critical.

As Operators, he said, they will be needing more and more transmission capacity both within and outside the country and were therefore looking seriously at all the various proposals that are evolving. In particular, he said, they were looking forward to reviewing the detailed plans for the Regional FiberOptic network, including dates or termination points, pricing etc so as make their plan accordingly.

## ***Theme 6 – The Statistics on Dispersion – 2days***

### **Planned Activities**

- What is the impact of the proposed model on the Stakeholders – 2 days

### **Contributions:**

**Walubengo** thanked members for their continued contributions before introducing the days theme on Dispersion. He said the Report had found that even though ISPs were present in all the 8 Provinces, they were hardly present at the districts level, covering only 30% of the districts in Kenya. In addition, of the three key stakeholders, Government, Educational and Commercial, the Commercial sector had the bulk of the existing Internet Connectivity (80%) while the Education Sector had the lowest (less than 2%). Finally, the Report estimated that of the 2.8 Million Internet users in the country, 80% were in the capital city Nairobi, 9% in Mombasa and the rest (11%) were spread across the country.

Walubengo added that these were quite bleak statistics and his recent trip to his rural home (Bungoma) seemed to confirm them since even the supposedly ubiquitous GPRS access failed to deliver in the rural home and yet it worked wonders in the urban setting. Further, the fixed line access was out of question - despite his having had a laptop that could have hooked onto the (surprisingly?) available telephone line. The problem being that the phone line was 'Hard-wired' to the telephone headset – thus not being able to flexibly port into a laptop. Given that the other Wireless option (Wifi, Wimax or Butterfly et al) were yet to sufficiently hit the rural region, the posed the question: What initiatives could be done to improve on the above bleak statistics?

**Kai** felt that the recent push by Government with the World Bank assistance in building internet infrastructure was presenting unfair competition to the private sector. He gave the example of the obvious failure by Government in providing fixed line services to the citizens through their public utility company Telkom Kenya. He argued that using the same approach in building domestic optical fiber infrastructure may lead to similar experiences, namely, little or no access, expensive and unreliable services. He strongly felt that Government should let the Private sector drive the build-up of the domestic fiber and furthermore, he expected that Government should be the largest consumer of the Private Sector build infrastructure.

**Becky Wanjiku**, wondered if the Government could work in partnership with the Private Sector, by way of having MOUs that enabled Government to fund the communications projects while the private sector implemented and operated them. But **Wanaina Mungai** preferred that World-Bank type of Funding would be best accorded to Community Based Organisations (CBOs) but if given to Private Sector, then there would be need to ensure that the Profit motive is moderated.

**Lucy Kimani** felt that both Government and Private Sector had a role in developing infrastructure. She said that both may however have different but justifiable reasons for getting involved. Private Sector may be keen in focusing in the urban (quicker return) areas whereas the Government had an obligation to ensure communication services reached all areas including more often than not, the non-economic, rural areas. **Fatma** said that the Government should however take on the key role of building capacity by way of providing 'roaming-digital-kiosks' that would enlighten the users and stimulate demand for the Internet Services.

**Alice Munyua** said that there was nothing wrong in the Government taking the lead in providing or building domestic fiber backbones. She cited the case of the Malaysian Government which built the Malaysian Super Corridor (MSC) which is a national information superhighway at cost of USD40 Billion. She added that Private sector would still have a role to play, particularly at the content, application and tech-skill levels.

**Eric Osiakwan** said that it would be wrong to outrightly discourage Government intervention in Infrastructure development because it has had different results in different countries. He cited Turkey where he said that the Government intervention through the Turkish public utility company lead to massive expansion of Internet Services, but acknowledged that the same could not be said in the case for Kenya.

**Dr. Bitange Ndemo** said that the purpose of the World Bank Loan was to stimulate demand a head of cheap bandwidth from the fibre cable. Areas that needed this type of stimulation include Rural ICT Centres, the Government, Universities and Colleges and BPOs.

He added that the procurement of subsidized bandwidth will be done openly where all operators would have a chance. This does not in anyway compromise any Private sector initiatives because they would be paid the market rate of bandwidth.

He explained that the participation of Government in construction of Terrestrial fibre networks and the undersea cable was to fast track availability of cheap bandwidth that would in turn help the economy to grow faster. Secondly, he said that Kenya needed an Open Access model that would help SMEs in the country to compete with the big Operators, like Jamii Telecom, KDN and the rest. He added that the Private sector had failed to provide the necessary infrastructure for economic development and no Private Operator had shown interest in rural Kenya until the Government made the business case for rural ICTs.

He however assured the Private Sector that Government had no interest in competing with them. Government role was to facilitate development. Infrastructure in the ICT Sector had lagged behind and what the Government was doing was simply to facilitate its development and leave the Private Sector to compete in an Open Access platform. He reiterated that Government had the obligation to enable every Kenyan citizen to play a role in economic development especially the SMEs that constitute 95% of businesses in the country.

He concluded by saying that there was absolutely nothing wrong with borrowing from the WB to stimulate demand for the investment Government was making in the ICT sector. Some of the funds would be used to develop capacity to utilize ICTs and development of local content. Essentially, Government was simply stimulating demand that would become consumers of Private Sector products.

**Alex Gakuru** gave a general reaction that touched on both Affordability and Dispersion Issues. On local content, he suggested that all government departments should now be having web content while KENIC should be encouraged to bring down their domain registrations fees. On the demand issue, he urged Operators to think outside their traditional markets and start enlisting new communities such as Church Ministries amongst others. On Education, he said there maybe need to seek for trust funds to continuously educate Users while on Infrastructure, he commended the Government on their move to facilitate a national reach for communications. **Harry Hare** added that ICT Infrastructure development should actually be elevated to the same level as National Road or Power Infrastructure. Infact, he suggested, that all the three, ICT, Road and Power Infrastructure should be planned in sync to avoid duplication of effort where the ICT people are often seen digging up through roads that were constructed with little or no provision for Data-ducts.

## ***Theme 7 – The Impact of the Recommendations-1day***

### **Planned Activities**

- The Impact of the Recommendations

### **Contributions:**

In his opening remarks on the Theme, **Walubengo** said that the Report had set out specific recommendations for the Regulator (CCK) some of which are summarized by Category below.

#### 1. Network Infrastructure (CCK Action Points)

- \*Build National Fiber Infrastructure
- \*Merge ISP & IGO Licenses(Create DCNO licenses)
- \*Make SLA (Service Level Agreements) mandatory for Operators
- \*Operate the National Internet eXchange Point (KIXP) on a PPP basis

#### 2. Affordability (CCK Action Points)

- \*Make Tariff Publishing Mandatory of (Internet) Operators
- \*Require Flat-rate or Volume Based Pricing for Dialup & Mobile Internet Services
- \*Increase competition for Fixed Line and Mobile Services

#### 3. Dispersion (CCK Action Points)

- \*Fund Annual 'Demand-Side' Internet Studies
- \*Develop National Information Infrastructure
- \*Review and implement Universal Access Fund/Strategy

He urged Operators, Consumers, Government, Regulators, Academia and others to air their views and asked them to consider the question: To what extent do you think the above action points will improve on the status of Infrastructure, Affordability and Dispersion? More importantly, why do you think some of the Action Points may not work and what specific changes would make them work?

**Alex Gakuru** supported most of the recommendations but cautioned against any Government takeover of the KIXP. **Eric** wondered why the Regulator would be building the Infrastructure but **Professor Meoli Kashorda** corrected the misconception by saying that it was the Government that had been tasked with that exercise. He further elaborated what was meant by a National Information Infrastructure (NII). He said that a NII was actually an ICT strategy that was aligned to the national strategic economic plans (ref Singapore, Mauritius, and China NII). That is, NII aligns the national economic/development strategy with the national ICT strategy (rather than just policy). He added that, that was the only way to translate infrastructure to traffic and therefore revenue for the operators.

**Brain Longwe** also supported most of the recommendations with cautions on a few. In particular, on the issue of dissolving the separation between ISPs and IGOs, he was of the idea that it would be better to start a fresh licensing regime subsequent to a stakeholders meeting that discussed what the future internet market would look like. The new licensing regime should then aim at structuring the critical areas within such a vision while being fairly open with the non-critical areas. On SLAs, he felt that it was easier to stipulate the Internet standard but it maybe quite a challenge to monitor the same for enforcement.

### ***Theme 8 – What is the way forward/Conclusions – 1day***

- Way forward.

**Mr. Walubengo** informed members that their views would be collated and published on the list, with copies being handed over to the Ministry and Regulatory officials. He added that a face-2-face session opportunity would be sought to review the submitted report in a traditional rather than online format.

## **Evaluation & Feedback**

### ***Technical***

The technical environment was fairly reliable except for one instance when the list server failed to function resulting in participant's posts not being delivered over a period of three days. This interrupted the smooth the flow of ideas but after it was resolved and the exercise continued without further technical hitches.

### ***eParticipants***

During the eDiscussions, the KICTANet listserver had around 180 (one hundred and eighty) subscribers and around twenty of them contributed actively to the eDiscussions. It however hoped that even the silent participants did get enlightened if not entertained by the lively debate and found them a source of useful insights..

### ***Moderation***

A listserver is considered an entry-level tool for managing electronic discussions or collaborations. A web portal with complete functionality that includes Online Chats, eForums, Blogs amongst others would have been preferred. However, by putting special attention to 'Subject-Lines', 'Theme Reminders' and Constant lobbying for comments, it was still possible to extract a significant amount of contributions from members.

## **Conclusion/Lessons Learnt**

This was the second eDiscussion of the year and most participants had known the basic operation and expectations. In particular, the concept of replying against a corresponding subject line enabled participants to belatedly react to themes that had previously been moderated. Also, the moderator was flexible in allowing more time for topics that generated more interest while trying to provoke reactions from less interesting topics. Finally, the idea of submitting weekly summaries acted as a valuable reminder and stimulant for new insights from participants. It is hoped that the experiences gained would be useful for the next online discussion which is expected to be on fully fledged online portal with contemporary electronic collaboration tools.

## **Appendices:**

### ***Appendix I – Glossary of Terms***

BPO – Business Process Outsourcing

CCK – Communications Commission of Kenya

IGO- Internet Gateway Provider

ISP – Internet Service Provider

SME – Small & Medium Sized Enterprises

SLA – Service Level Agreements

DCNO- Data Carrier Network Operator

IBP/O- Internet Backbone Operator/Operator-same as IGO

eParticipant – a participant engaged electronically on a collaborative task

KDN – Kenya Data Networks

KICTANet- Kenya ICT Action Network

Portal – an Online environment that integrates a variety of electronic collaboration tools

PDNO- Public Data Network Operator