

Ref: af-K1/1906/1

Friday, 5 July 2019

Uganda Communications Commission
UCC House
Plot 42 - 44, Spring road, Bugolobi
P.O. Box 7376
Kampala, Uganda

Dear Mr Mutabazi,

Re: IXP Regulatory Framework Consultation

I write in response to the Uganda Communications Commission's (UCC) draft Internet Exchange Point Regulatory Framework, dated May 2019, a copy of which reached me through the Uganda Internet Exchange Point (UIXP).

About AFRINIC

AFRINIC is the Regional Internet Registry for Africa, and is responsible for distributing Internet number resources (IP addresses and Autonomous System Numbers) to our members throughout Africa. AFRINIC has 37 members in Uganda, most of which are Internet Service Providers, and several of which are connected to the existing Uganda Internet Exchange Point (UIXP).

One of AFRINIC's aims, in terms of its Bylaws, is *"to propose and take such steps as are necessary to promote the development of public policies in the best interest of members and to seek legislative and regulatory consideration, whether by way of meetings or representations, of issues of general benefit to the members, where and when appropriate"*. It is in that context that I provide these comments on the proposed regulatory framework.

You may view AFRINIC's web site at <<https://afrinic.net>>, and our 2018 Annual Report at <<https://afrinic.net/annual-report/2018>>.

You may also be interested in some of AFRINIC's other activities, such as:

- The AFRINIC Government Working Group (AfGWG), which is a forum for regulators, law enforcement, and other government representatives to discuss AFRINIC-related matters.
- Assistance with IPv6 strategy development, training, and certification.

For more information on how AFRINIC can collaborate with UCC, please contact AFRINIC's Head of Stakeholder Engagement, Arthur Carindal, via email to <arthur@afinic.net>.

Response to Question 2

Do you have any comment on the objectives of the framework as highlighted in section 3? If yes, please explain.

Section 3: Objective

The objectives of the framework, as given in section 3 of the document, seem clear and useful.

Response to Question 4

Do you have any comment on the applicability of this framework as spelt out in section 6? If yes, please explain.

Section 6: Applicability and Exemptions

I recognise the UCC's interest in ensuring that IXPs provide a high quality service. However, small and unregulated IXPs may provide benefits that should not be ignored. I suggest that IXPs below a certain size could be exempt from licensing requirements. The size limit could be specified in terms of the number of connections, or in terms of the aggregate capacity (bandwidth) of the exchange point.

Response to Question 5

Do you have any comment on any of the regulatory requirements proposed for provision of internet exchange services in Uganda as highlighted in section 7? If yes, please explain.

Section 7.1: IXP Licensing

As stated in the response to question 4, I suggest that IXPs below a certain size could be exempt from licensing requirements.

Section 7.3: Technical requirements

Most of the requirements in section 7.3 seem reasonable for large IXPs, but again I suggest that small and unregulated IXPs may provide benefits, even if they are unable to meet performance requirements that are more suited to large IXPs.

In section 7.3(d), not all IXPs will have all the listed facilities, so I suggest that the requirements should be written in a way that applies only to those facilities that are actually present.

Response to Question 6

Do you have any comment on the stakeholder's responsibilities specified in the provision of section [8]? If yes, please elaborate.

Section 8.2: Operators

I suggest that the objectives set out in section 3 could be achieved without requiring operators to connect to IXPs. IXPs are a useful mechanism for operators to interconnect with other operators, but "private interconnects" that do not involve IXPs are very common in the Internet industry, and should also be encouraged. As an alternative to requiring connection to an IXP, the UCC could consider imposing a limit on the percentage of Uganda-to-Uganda traffic that

is routed through third parties outside Uganda (where both the source and destination are in Uganda, but the traffic exits and then returns to Uganda).

Response to Question 7

Do you have any comment on the designation of a national internet exchange point as described in section 9 above? If yes, please elaborate.

Section 9: Designated National Internet Exchange Point

It is not clear whether the UCC contemplates designating more than one “Designated National Internet Exchange Point”, and if there will be more than one then it is not clear how other requirements in section 9 are to be interpreted.

Section 9(j) refers to other IXPs peering with a Designated National IXP. The term “peering” usually refers to interconnections between network providers, such as ISPs. Independent exchange points usually do not interconnect with each other at all. I suggest that the provision in 9(j) should be removed.

I appreciate the opportunity to comment on the proposed IXP framework, and I wish you success in improving the performance and lowering the costs of Internet services in Uganda.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Alan Barrett', with a stylized, flowing script.

Alan Barrett

Chief Executive Officer