

IXP Growth challenges in West Africa

The Ghana Experience

Intro - Ghana Internet Exchange Point

- ▶ The GIX was launched on 18th October 2005
- ▶ Started with 7 peers and now has 20 peers and 2 CDNs
- ▶ Membership - MNO, ISPs. Educational institutions, Government
- ▶ Managed by the Ghana Internet Exchange Association
- ▶ Currently have 2 PoPs in two commercial data centers
 - ▶ These PoPs are connected with a 10G DF connection
- ▶ Recently established a test link between GIX and IXPN

IXP Growth challenges in West Africa

- ▶ The way some of the exchanges are setup
 - ▶ Industry association - the association does not allow the IX to evolve. With too many ISP interest,
 - ▶ As new peers from education, government, banks come in - who controls it?
- ▶ Lack of content
 - ▶ Very small locally produced content
 - ▶ In the case of locally generated local content, most of it are stored outside
 - ▶ Some cache providers need a lot justification for them to peer or sometimes even host at small exchanges
- ▶ Problem of transport cost to the exchange point
- ▶ Payment modules for peers - membership fees vs port fees
- ▶ Transit costs for content provision - shared cost vs ISP hosted

Growth Challenges - Continued

- ▶ Low traffic levels at individual exchange points
 - ▶ Not a compelling reason for major players to peer
 - ▶ Looking into linking some of the exchange points
- ▶ Regulator support ???
 - ▶ Regulator not sure of what to do with the exchange point as it does not issue license or spectrum to it
 - ▶ Hence may not give much support
 - ▶ Sometimes might delay certain shipments from getting to the IX because they do not have inside visibility on what goes on at the exchange
- ▶ Cross boarder issues
 - ▶ Unavailability of terrestrial fiber across boarders
 - ▶ Legal and licensing challenges at certain boarders
- ▶ Not enough funds to pay Technical and commercial part time team members to drive the IX agenda

How are we trying to resolve this

- ▶ The IXP is changing its governance structure to become a private non-for profit
- ▶ Have more engagements with the regulator
 - ▶ Invite them to our programs
- ▶ Work together to have a professional hosting platform
 - ▶ Then encouraging the few content producers to start hosting locally.
- ▶ Engaging infrastructure companies on shared fiber modules to drive down the cost of terrestrial fiber
 - ▶ Working with the regulator on this
- ▶ Encourage shared fiber across the borders. Swaps
- ▶ Currently connected the GIX to the IXPN - to increase traffic at both ends

Thank you

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