



GRAND DUCHY OF LUXEMBOURG
Ministry of Foreign Affairs

Directorate for Development Cooperation



European Union Africa
Infrastructure Trust Fund

Operational and Technical Best Practices

IXP Governance and Management Structure in a Regional Setting



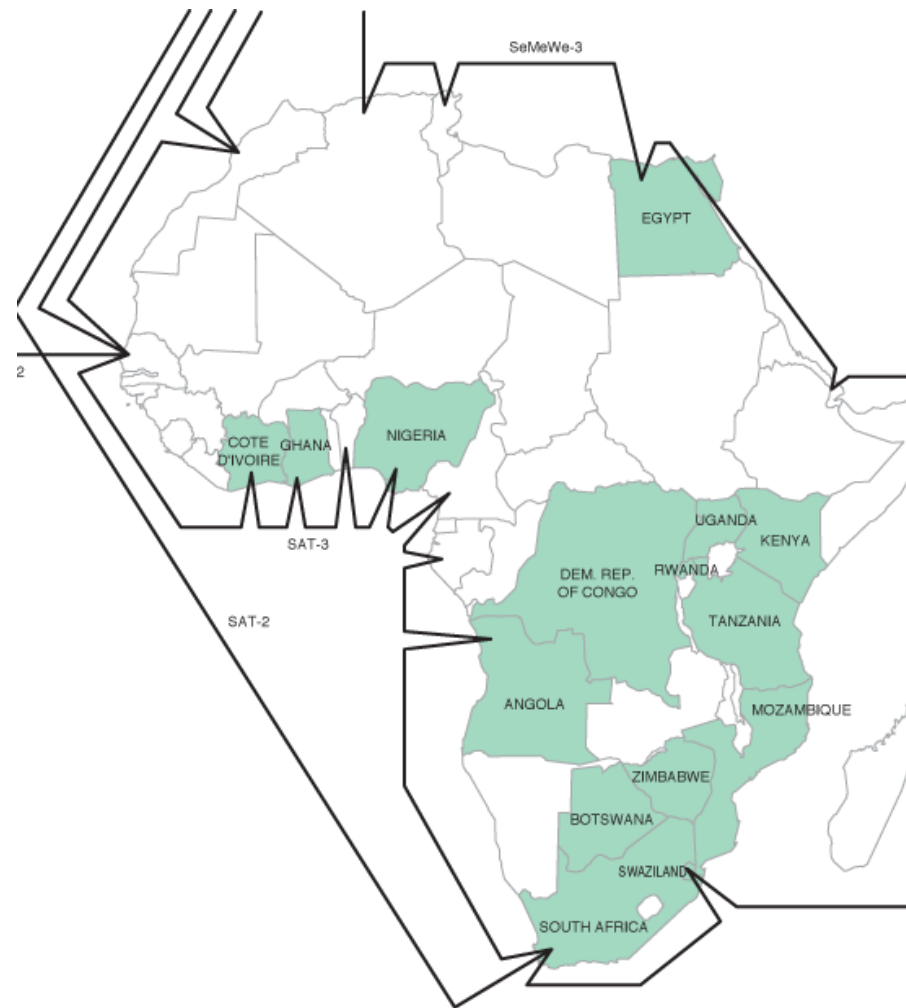
Background

- The AXIS Best practice workshops on establishing a National IXP spends a considerable amount of time talking about the governance and management structure of the proposed IXP.
- The objective is to get the stakeholders to agree at an early stage, on some of the key governance and management issues such as;
 - Institutional and operational model of the IXP
 - Commercial vs. non-profit
 - Board Composition
 - Founding members and membership categories
 - Management Structure
 - Staffing requirements
- To understand why this is important, let us take a walk back to 2008 ...

STATUS OF IXPS IN 2008

Status of African IXPs in 2008

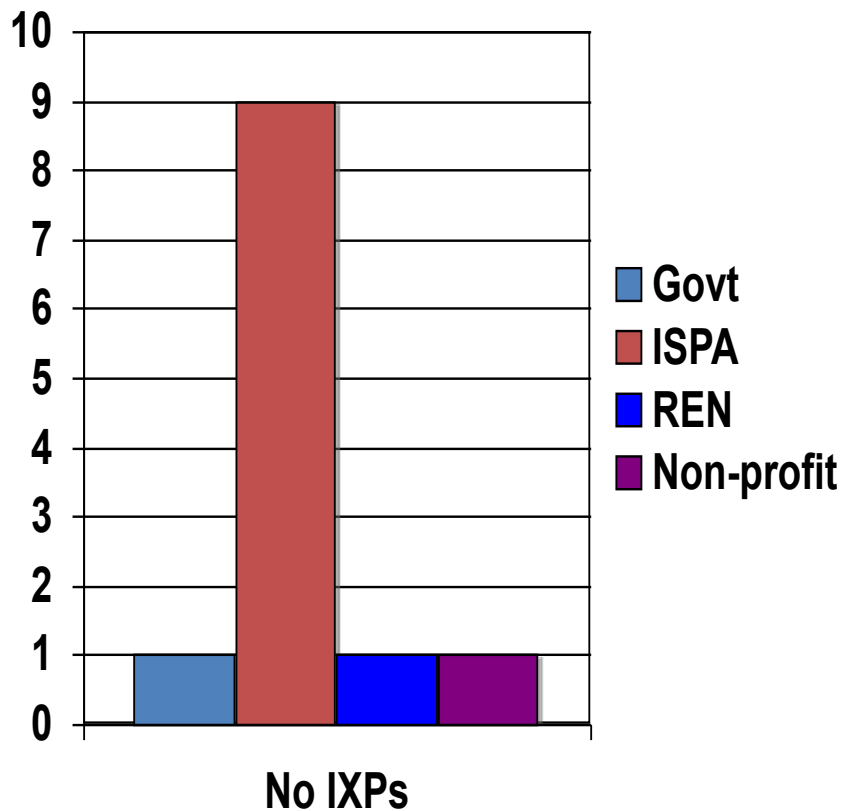
- There were **17 IXPs** in 15 African Countries
- IXPs were formed as a result of prevailing challenges in the telecom's industry
- **ISP Associations** were mainly involved in pushing for the setup of IXPs in most cases.
- Questionnaires were sent to the known 17 IXPs and **12 responses** were received
- At the time, the Oldest IXP was JINX in South Africa established in **1996**
- The youngest IXP was Arusha IXP established in **July 2007**
- At the time, the average age of the IXPs in the the region from the responses received is **4.1 years**
- **There was no submarine cable on the East African Coastline.**



Government involvement in IXPs in 2008

- **2 out of 10 respondents had no Government involvement in the IXP**
- **Of the 12, only two were licensed by the regulator**
- **33% of the respondents indicated that had Government agencies peering at the IXP**
- **At least 50% of the IXPs were established with Government facilitation**

IXP Model



- **75% of IXPs are non-profit entities run by the ISPA**
- **One IXP was operated by Government**
- **One IXP was operated by an academic institution on REN**
- **One IXP was an independent Non-profit**
- **One IXP receives Govt. Support with potential clients been recommended to seek services with IXP members only**

IXP Model in 2014

- Most African IXPs were established by ISP Associations and Universities
- The IXPs have maintained the ISP association models. There remains a number of advantages for maintaining the non-profit model for the IXPs especially in a local setting.
- However, in a evolving growing and more regional/global Internet ecosystem where new actors are emerging this model faces a number of challenges;

THE CHALLENGES

Local Challenges

- The ISP association despite being not-for-profit has complexities on legal ownership of the IXP entity due to shareholding requirements
- The emergence of non-traditional members such as governments, NRENs, presents a new challenge to ISP Association owned IXPs on inclusion of public institutions on their boards.
- There are a number of operational and administrative challenges that face association type of organizations such as
 - Tax compliance
 - Asset ownership
 - Charging fees for provision of services

Local Challenges

- Most IXPs do not have part-time or full-time staff. They depend on the volunteer support
- Due to lack of staff they fail to uphold constitutional obligations such as;
 - Hold quarterly board meeting
 - Conduct annual financial audits
 - Hold annual general meetings/assembly
- This results in poor governance, transparency and accountability of the IXP to its members
- The IXP performs poorly on visibility within the local community which affects the perception by its members

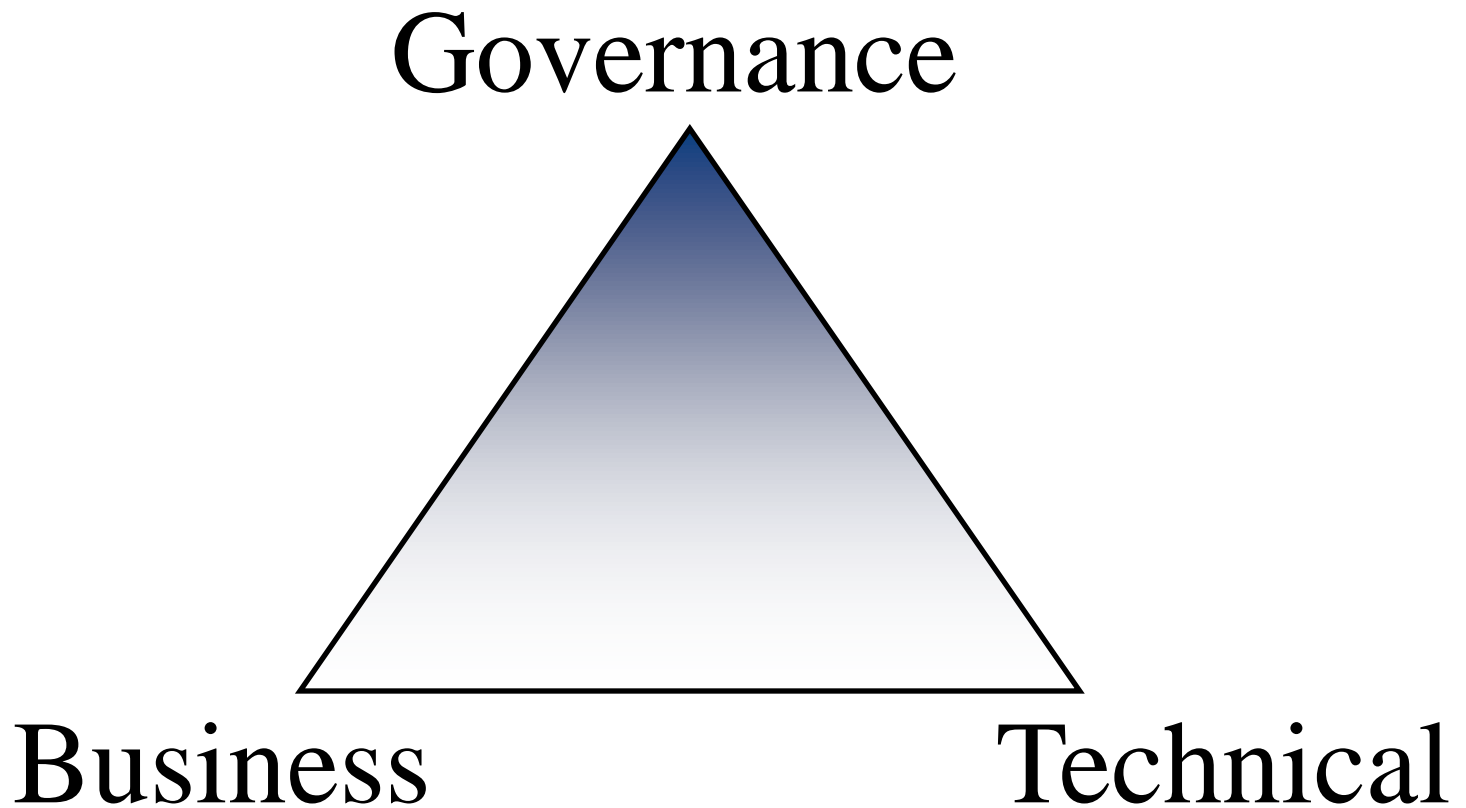


Regional Challenges

- An IXP owned by an ISP association is likely to face the following challenges;
 - External members who would wish to become board members may have legal limitations
 - The legal structures of most associations recognise relationships with other entities or individuals as membership and not customers/clients
 - In some countries there are limitations as to the number of members an association can have – therefore a growing IXP exceeding 100 members may have a potential problem
 - Not all those external potential peers would be interested in being members – some networks would only want to become peering customers
 - With staff limitations, the association may have difficulties hiring foreign staff to support their expansion ambitions

WAY FORWARD

Regional IXP Cornerstones



Regional IXP Model

- Experience shows that a non-commercial entity is possibly better placed to maintain neutrality.
- However, identifying a suitable approach that will provide the flexibility to address most of the local and regional challenges will be critical
- The IXP members and board will have to initiate a review process to ensure that their institutional and operating model is able to support the regional growth requirements

Governance quick wins

- Upholding its constitutional mandate on governance
 - Quarterly board meetings
 - Annual meetings
 - Audited accounts
- Publishing reports online
- Active participation in the local community



Management Structure quick wins

- Staffing resources
 - FTE or Part time staff
 - Partnership with universities to complement on staffing requirements
- Professional Services
 - Responsiveness to issues
 - Network Operations Centre
- PR and Communications
 - Online Information
 - Peering DB
- Multi-lingual support





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END

