

3.2.5.5 : International access costs in Africa
Coûts internationaux de l'accès Internet
(Tarek Kamal)

International Access Costs
in Africa



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Agenda

- Universal Access
- PSTN Traffic Exchange Model
- Internet Traffic Exchange Model
- Where is the issue?
- Implications
- Recommendations
- Regional Hubs

Universal Access

- All users should be able to communicate with other users transparently
- All network operators should be obliged to interconnect with other operators
- Interconnection charges should be
 - properly derived from underlying costs and
 - fairly shared between all parties

PSTN Traffic Exchange Model

- Domestic Traffic, Access Payment
- International Traffic, Accounting Rate Settlement

Internet Traffic Exchange Model

- Domestic Traffic
 - *Service Provision*
 - Peering
- International Traffic
 - Peering at NAPs
 - Getting service from a global carrier
- Paying for whole circuit and IP traffic
 - 80% of the overall Internet Costs

Where is the Issue?

Internet Infancy

- NSF paying for the whole Internet connectivity
- Universities paying for peering at the NAPs

Internet Commercialization

- Critical mass that you need to connect to
- IP providers charging for the transmission costs

Where is the Issue?

- Who benefits from the connectivity?
- More use of Internet for voice
- Ratio between incoming and outgoing traffic becomes less

Implications

- High costs of Internet access in developing countries
 - African bandwidth around 100 Mbps
 - Average costs of U\$60,000/month for E1
- Average of U\$750,000/month subsidization from developing to developed countries
- Lower penetration of Internet
- Losing effectiveness as a tool for development

Recommendations

- Dealing with the principle of Internet in the same manner as PSTN (based on fixed ratios for settlement)
- Carriers should be sharing in the telecommunications costs
- Establishment of a workgroup to determine the amount of contribution of carriers
- Proposal for establishment of African Internet Exchange and regional Hubs

African Internet Exchange

- Creating a mass of Internet users
- Stronger position in negotiations
- Less costs of telecommunications between African countries
- Savings in the costs of Internet for all African countries
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Asymmetric Access

- Introduction of Asymmetric Connection to the Internet
- Provides a way to provide access at lower rates
- Pulling traffic from Internet
- No contribution of information
- Savings in telecommunications costs