Partnering with Utility Companies to advance Broadband Access

A4AI NIGERIA BROADBAND INFRASTRUCTURE FORUM

Mavis Ampah, CEO Stinsad Consult  
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THIS IS NIGERIA

Mobile Penetration 116 SIM cards/100 inhabitants

Internet Penetration 50.2%

Avg monthly income of middle class
US$480 and $645

Cost of data – 1.59% of national income

Highest performing lower-middle income country in SSA
Unique Subscribers - 49%

Broadband penetration - 12%

US$80/month for internet

40% of Nigerians earn below avg monthly income of $164 (2017 GDP/capita of $1968)

Broadband speed - 3.15Mbps

THIS IS ALSO NIGERIA
Is there a problem behind the Numbers?

- 51% of Nigerians may not have access to good mobile connectivity

- Broadband Prices – Depends which stats: Cable.co.uk ranks Nigeria one of the most expensive countries at US$80/month for internet

- BB penetration – Again depends which stats: BTN 12%-22%
Is there a problem behind the Numbers?

- **SPEED MATTERS** - 3.15Mbps
  - Ranks 7th (of top 12 in Africa)
  - OFCOM estimates minimum 10Mbps to fully participate in a digital society

- Madagascar and Kenya only countries in Africa with 28.87 & 10.11 Mbps respectively
Is there a problem behind the Numbers?

• **AND COST MATTERS** – For the bottom 40%

• High Income Inequality limiting digital dividends – esp. for RURAL, NORTHERN CITIZENS
Broadband Supply Chain

Problem on any of these *miles* results in disparate networks and poor delivery of services.

- **First Mile** - point where Internet enters country
  - Submarine Cable landing stations
  - Satellite connectivity

- **Middle Mile** - infrastructure through the country
  - National Backbone – MNO/Utility (PCN) networks
  - Intercity Networks
  - IXP/Towercos

- **Last Mile** - Inf reaching end user through Local access network
  - MNOs, USPF
  - Power, railways, roads etc
  - Towercos

- **Invisible Mile** (Intangible Aspects)
  - Broadband/Plans & Policies
  - Infrastructure Sharing Guidelines/policies

- **Possible Solutions**
  - Regulations – spectrum, DTT licensing etc
  - Institutional coordination/capacity building

Very Competitive But SCL mostly in Lagos

Duplication of Networks
Options for improving BB access – leveraging Fiber in Power Transmission Lines (Regional and National)
2 regional ring structures to ensure redundancy and reliability of an integrated regional communications network

Current discussions now active for Burkina Faso, Ghana and Togo

New WAPP Program
- Ready status
  - 2010
  - 2010 (NCBC)
  - 2012
  - 2013, 2014
  - 2014, 2015
- Countries not ready
  - OF Existing or Country plans
    - OPGW 24
    - OPGW 12
    - OPGW 18 & 20
    - OFC 8 & 12
    - OFC 24
    - 2011 OPGW 24 NCBC
Leveraging Power Transmission Lines At National Level – Different Models

**Gabon** – Tripartite agreement in 2017 btn. State, Groupe Vivendi Africa, and power company SEEG to leverage latter’s fiber for BB internet through FTTH
Leveraging Power Transmission Lines At National Level – Different Models

Ghana – GRIDTel - Strategic Business Unit of GRIDCo, with licence to provide open access communication services to Telcos in Ghana. Current clients include MTN, Vodafone

GRIDTel looking to partner with ECG (Distribution Network) and Railways for more robust network with nationwide coverage
Win-Win for All

- **Reduced cost for operators** - Estimated Site acquisition costs/ expenses for civil works account for up to 40% of initial investment
- **Increased competition** = Reduced price and improved access for Consumers
- **Protects environment**
- **More resilient network** - overhead fiber more reliable than underground or buried; improves redundancy
- **New source of revenue for Utilities**
- **Efficient utilization of existing infrastructure** - MNOs in Nigeria have abt 52,000 km of terrestrial fiber; length of TCN’s network: **12,300 km**; 11 Dist Cos: **224,838 km**

- Well structured partnerships could be **game changer** in Nigeria’s broadband narrative – **ESPECIALLY FOR RURAL COMMUNITIES**
Recommendations

1. Strengthen Policy and Regulatory Frameworks that support infrastructure sharing

2. Publish guidelines for infrastructure sharing

3. Improve capacity to structure/negotiate commercial partnerships with private sector