West Africa (Submarine) Cable System (WACS)

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Overview

Introduction
Current Scenario
The Opportunity
Africa Undersea Cables
West Africa Cable System
Internet Undersea World
Investment Interests
Project Costs, Status & Ownership
Bandwidth Costs – Ghana
Benefits to Africa
Conclusion
Liberalisation of the telecommunications sector has led to evolution of internet, VOIP, mobile market & integrated network solutions.

It is therefore necessary that an appropriate infrastructure is developed to carry the rapidly increasing traffic.

Institutions are currently dependant on extremely expensive bandwidth for the enhancement of Research and Education though there is already in existence the SAT – 3 Submarine Cable
Current Scenario

Along the Coast of West Africa are the ff.

- SAT3
- Main One
- Glo – 1
- ACE
- WACS
The Opportunity

High quality broadband international connectivity reaching Southern Africa, Europe and America

Access to untapped emerging markets in voice, mobile and Internet technologies

Reduce Region’s dependency on Satellite and also lower network costs at higher bandwidth

Promote Research & Education and also Improve Technology Exchange
Sub-Saharan Undersea Cables

- **SAT3/SAFE**
  - 340 gigabits
  - Active

- **TEAMs**
  - 1280 gigabits
  - Active

- **Seacom**
  - 1280 gigabits
  - Active

- **Lion**
  - 1300 gigabits
  - Active

- **EASSy**
  - 1400 gigabits
  - Q3 2010
  - 1920 gigabits
  - Q3 2010

- **Main One**
  - 2500 gigabits
  - Q3 2010

- **GLO-1**
  - 5120 gigabits
  - Q3 2010

- **WACS**
  - 5120 gigabits
  - Q2 2011

- **ACE**
  - 5120 gigabits
  - Q2 2012
Ghana - Fibre Network by August 2010

3 Public Universities Currently linked by Fibre Backbone for GhARNET
Investment Interests

The following (12) Telcos have signed the Memorandum of Understanding (MOU) for the development of the system:

- Telkom
- Vodacom
- MTN
- Tata Communications (Neotel)
- Broadband Infraco
- Cable & Wireless
- Portugal Telecoms
- Congo Telecoms (formerly Sotelco)
- Telecom Namibia
- Togo Telecom
- OCPT (Office Congolais des Postes et Telecommunications)
- Angola Telecom
## Status, Ownership and Cost of West Africa Submarine Cables

<table>
<thead>
<tr>
<th></th>
<th>Seacom</th>
<th>EASSy</th>
<th>TEAMs</th>
<th>WACS</th>
<th>Main One</th>
<th>GLO1</th>
<th>ACE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost (Millions of USD)</strong></td>
<td>650</td>
<td>265</td>
<td>130</td>
<td>600</td>
<td>240</td>
<td>250</td>
<td>700</td>
</tr>
<tr>
<td><strong>Length (km)</strong></td>
<td>13,700</td>
<td>10,000</td>
<td>4,500</td>
<td>14,000</td>
<td>7,000</td>
<td>9,500</td>
<td>14,000</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>1.28Tb/s</td>
<td>1.4 Tb/s</td>
<td>120Gb/s - 1.28Tb/s</td>
<td>5.12Tb/s</td>
<td>1.92 Tb/s</td>
<td>2.5 Tb/s</td>
<td>5.12 Tb/s</td>
</tr>
<tr>
<td><strong>Completion</strong></td>
<td>July 2009</td>
<td>June 2010</td>
<td>Sept 2009</td>
<td>Q3 2011</td>
<td>Q2 2010</td>
<td>Q2 2010</td>
<td>Q2 2010</td>
</tr>
<tr>
<td><strong>Ownership</strong></td>
<td>uSA-25%</td>
<td>SA -50%</td>
<td>Kenya - 25%</td>
<td>African Telecom Operators - 90%</td>
<td>TEAMs (Kenya) - 85%</td>
<td>Etisalaat (UAE)-15%</td>
<td>USA, Nigeria AFDB</td>
</tr>
</tbody>
</table>

- **Seacom**: USA, SA, Kenya
- **EASSy**: USA
- **TEAMs**: Kenya, Operators, (UAE)
- **WACS**: Telkom, Vodacom, MTN, Tata (Neotel), Infraco et al
- **Main One**: USA, Nigeria
- **GLO1**: AFDB
- **ACE**: France Telecom, Orange, Baharicom, Equatorial Guinea, Gabon, Et al
# Monthly Bandwidth Costs - Ghana

<table>
<thead>
<tr>
<th>Company</th>
<th>Bandwidth</th>
<th>Cost (USD)/Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vodafone</td>
<td>1 Mb/s</td>
<td>3,000</td>
</tr>
<tr>
<td>MTN</td>
<td>1 Mb/s</td>
<td>3,000</td>
</tr>
<tr>
<td>MainOne *</td>
<td>155.52 Mb/s (STM - 1)</td>
<td>70,000</td>
</tr>
<tr>
<td></td>
<td>622.08 Mb/s (STM - 4)</td>
<td>48,125</td>
</tr>
<tr>
<td>iBurst Africa</td>
<td>1 Mb/s</td>
<td>3,000</td>
</tr>
</tbody>
</table>

- *1Mb/s on Main One for the STM-1 comes to about $451/month*
- *1Mb/s for STM-4 comes to about $77/month*
Benefits to Africa

Improved high capacity optic fibre connectivity within Africa and the rest of the world.

Enables new services and products not possible before due to bandwidth restrictions

Contributes towards the socio-economic development of the region

Reduced unit costs (capital and operational) for global connectivity, leading to increased profits

Reduced out payments to foreign telecommunications (satellite) facility providers.

Direct routes through own infrastructure eliminates the need for transits through Third Parties

Expansion in inter-Africa trade, facilitated by better communication in the region.
Conclusion

The successful implementation of the West Africa (Submarine) Cable System is expected to make significant contribution to the development and provision of ICT services and facilitate the intra-regional as well as international trade.

And would also promote Research and Education
Thank you! Midaase! Asante! Gracias! Arigato!

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