Creating a Level Playing Field

The Tanzania Telecoms Sector - Overview

Regional Seminar on Costs and Tariffs and Regional Meeting of the Tariff Group for Africa (TAF)
Creating a Level Playing Field

Agenda

- Country profile
- Telecommunications sector overview
- Legal and regulatory framework
- Converged Licensing Framework
- Telecommunications market
- Benefits of reforms
Country Profile: Tanzania

- Location: East Africa
- Total Area: 945,000 Km²
- Population: 39.8 million
- Per Capita Income: UD$ 365
- Teledensity: 19.4%
1994 separation of Tanzania Postal & Telecommunications corporation into
- Tanzania Telecom Company Ltd
- Tanzania Postal corporation
- Regulator (TCRA)
- Partial liberalization; mobile operators & data communication services allowed,
- Importation and installation of electronic equipment liberalized,
- TTCL privatized 2001 and given 4 years exclusivity period for fixed and international services up to 23rd February 2005),

Since 23rd February 2005 the communications sector is fully liberalized;
Regulation is for creating a level playing field to enable fair competition among licensed operators and service providers.
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Communications Sector Policies

- National Telecommunications Policy (1997)
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Sector Legislations

- Tanzania communications Act No. 18/1993;

- Tanzania communications Regulatory Authority Act No. 12/2003; (introduced convergence licensing framework)
  - Complemented by 14 regulations

- Universal Communications Service Access Act #12/2006
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Institutional arrangement

- Government responsible for strategic Policy guidelines for development of the communications sector
- The Tanzania Communications Regulatory Authority (TCRA); responsible for regulation of Postal, Broadcasting and Electronic Communications sectors
- Operators are responsible for building, maintaining info-communication infrastructure, providing efficient and affordable ICT services to Tanzanians (rural & urban)
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**Licensing Framework**

- Tanzania liberalize fully its Communication sector in February 2005.
  - Adopted Converged Licensing Framework (CLF) as a key strategy to implement liberalization policy
  - CLF is technology and service neutral
  - Accommodates locals with minimum investments
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Licenses Category Under CLF

1. Network Facility Licence (NFL)
2. Network Service Licence (NSL)
3. Application Service Licence (ASL)
4. Content Service Licence (CSL)
Network Facility Licence (NF);

- Authorises ownership and control of any element, or combination of elements, of physical infrastructure used principally for, or in connection with, the provision of one or more network services, but not including customer premise equipment.

  - Examples of electronic communication infrastructure including Earth Stations, Fixed links and cables, Radio communications transmitters and links, Satellite hubs, Satellite control station, Space station, Submarine cable landing centre, Switching centre, Tower, poles, ducts and pits used in conjunction with other network facilities.
Network Services Licence (NSL);

- Authorises the operator to establish electronic communication networks for carrying information in the form of speech or other sound, data, text or images, by means of guided or unguided electromagnetic energy, but not including services provided solely on the customer side of the network boundary.

- This category include Bandwidth services, Broadcasting distribution services, Cellular mobile services, Access applications service, Space Segment Services.
Application Service Licence (AS)

- Authorises reselling or procurement of services from Network Service operators.
- The licensee does not own network infrastructure. Examples are internet providers, virtual mobile provider, payphone services, IP telephony, Public payphone services.
- Authorises the provision of content such as Satellite broadcasting, Terrestrial TV Broadcasting, Terrestrial radio broadcasting and other electronic media.
The CLF subdivides market into four segments as follows:

- **International Market Segment:** Licensee is authorized to offer services from one or more of the four category licences to International market.

- **National Market segment:** Licensee is authorized to provide services National wide.

- **Regional Market segment:** Licensee authorized to provider service in an administrative region.

- **District Market segment:** Licensee authorized to provide services in an administrative district.
Licensed Providers of telecommunications services:

- Four licensed international gateway operators
- Six licensed mobile telephones providers
- Two licensed fixed telephones providers
- Over 40 licensed Internet Service Providers (ISPs)
<table>
<thead>
<tr>
<th>Licensee</th>
<th>Scope</th>
<th>Network facility</th>
<th>Network service</th>
<th>Application service</th>
<th>Technology used</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTCL</td>
<td>National and international</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Copper, WLL, CDMA, 450MHz</td>
</tr>
<tr>
<td>Vodacom</td>
<td>National and international</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>GSM, UMTS / HSDPA</td>
</tr>
<tr>
<td>Tigo</td>
<td>National</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>GSM</td>
</tr>
<tr>
<td>Celtel</td>
<td>National</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>GSM</td>
</tr>
<tr>
<td>Zantel</td>
<td>National and international</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>GSM, CDMA 800MHz</td>
</tr>
<tr>
<td>Benson</td>
<td>National</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>CDMA 450MHz</td>
</tr>
<tr>
<td>Six Telecom</td>
<td>International</td>
<td>YES</td>
<td>YES</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
Market Share by No. of Subscribers

- VODACOM: 48%
- TIGO: 13%
- CELTEL: 29%
- ZANTEL: 7%
- TTCL: 3%

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Benefits of Liberalization

- Enhanced free and open competition benefiting consumers and the national economy by:
  - Lowering calling tariffs
  - Introduction of new and better products
  - Increased consumer choice
  - Growth in demand for telecommunication services
  - Increasing in investments
  - Increasing coverage
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Benefits of Liberalization

- Services provided:
  - Voice Telephone (fixed & mobile)
  - Data and internet services
  - Public payphones services
  - Short messaging services,
  - Multimedia Messaging Services (MMS),
  - Video streaming, and other 3G related services.
  - Operators are upgrading their networks to NGN to enable delivery of new and more modern services to customers.
  - TTCL (incumbent) has also upgraded its traditional network by digitizing copper wire line into Asynchronous Digital Subscriber Lines (ADSL) which enables provision of broad band services.

- Types of networks in use:
  - GSM/3G, Copper wire, Fixed wireless, CDMA, WiMax for access networks
  - Fiber, terrestrial microwave and Satellite transmission systems,
Benefits of Liberalization

**Total Subscriber Growth**

- **Y-axis:** In Thousands
- **X-axis:** Years (1995 to 2007)

The graph shows the growth of subscribers over the years. The growth appears to be exponential, starting from a low base and increasing significantly over time. The subtitle text reads: "Creating a Level Playing Field."
Benefits of Liberalization

Subscriber Growth Fixed V/s Mobile

In Thousands


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**Fig. 2. Telephone Lines per population (Teledensity)**

- Population with no telephone lines (60.6%)
- Population with Telephone lines (15.4%)

*Graph shows the percentage of the population with telephone lines from 1995 to September 2007.*
Tariffs

- Tariffs are not regulated except when there is market failure
- Example: Interconnection rates are regulated when operators fail to agree on interconnection charges,
  - Interconnection rates are cost based and determined using Long Run Incremental cost (LRIC)
  - Recent determination December 2007, effective for five years from 1st January 2008 to 31st December 2012

- Retail tariffs are determined by market forces
  - Tariff rates have been declining over time

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Mobile Termination</td>
<td>10.0</td>
<td>8.9</td>
<td>7.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Fixed Termination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Single Tandem</td>
<td>3.9</td>
<td>3.8</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>(b) Double Tandem</td>
<td>5.5</td>
<td>5.3</td>
<td>5.0</td>
<td>4.8</td>
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</table>
Interconnection Rate Determination No2 of 2007, effective from 1st January 2008

<table>
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<tbody>
<tr>
<td>Voice call termination rates in US cents</td>
<td>7.83</td>
<td>7.65</td>
<td>7.49</td>
<td>7.32</td>
<td>7.16</td>
</tr>
</tbody>
</table>
Average National Tariffs

2000 2001 2002 2003 2004 2005 2006 2007
Evolution of Telephone Tariffs
## Creating a Level Playing Field

### Prepaid Tariffs per Operator as at 31st December 2007 (USD Cents Per Minute)

<table>
<thead>
<tr>
<th>Destinations</th>
<th>Time</th>
<th>Celtel</th>
<th>Tigo</th>
<th>TTCL Fixed</th>
<th>TTCL Mobile</th>
<th>Vodacom</th>
<th>Zantel</th>
<th>BOL</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Mobile Network</td>
<td>Peak</td>
<td>0.19</td>
<td>0.18</td>
<td>0.11</td>
<td>0.18</td>
<td>0.26</td>
<td>0.20</td>
<td>0.05</td>
<td>0.17</td>
</tr>
<tr>
<td></td>
<td>Off Peak</td>
<td>0.19</td>
<td>0.06</td>
<td>0.11</td>
<td>0.15</td>
<td>0.23</td>
<td>0.20</td>
<td>0.05</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Late Night/Discount</td>
<td>0.19</td>
<td>0.06</td>
<td>0.06</td>
<td>0.08</td>
<td>0.05</td>
<td>0.20</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>Other Mobile Networks</td>
<td>Peak</td>
<td>0.25</td>
<td>0.30</td>
<td>0.23</td>
<td>0.23</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Off Peak</td>
<td>0.25</td>
<td>0.30</td>
<td>0.20</td>
<td>0.20</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.24</td>
</tr>
<tr>
<td>National Fixed Network (0 - 50km)</td>
<td>Peak</td>
<td>0.25</td>
<td>0.30</td>
<td>0.11</td>
<td>0.18</td>
<td>0.34</td>
<td>0.23</td>
<td>0.10</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>Off Peak</td>
<td>0.25</td>
<td>0.30</td>
<td>0.11</td>
<td>0.15</td>
<td>0.34</td>
<td>0.23</td>
<td>0.10</td>
<td>0.21</td>
</tr>
<tr>
<td>National Fixed Network (51 - 500km)</td>
<td>Peak</td>
<td>0.31</td>
<td>0.30</td>
<td>0.15</td>
<td>0.18</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Off Peak</td>
<td>0.31</td>
<td>0.30</td>
<td>0.12</td>
<td>0.15</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.23</td>
</tr>
<tr>
<td>National Fixed Network &gt; 500km</td>
<td>Peak</td>
<td>0.38</td>
<td>0.30</td>
<td>0.15</td>
<td>0.18</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Off Peak</td>
<td>0.38</td>
<td>0.30</td>
<td>0.12</td>
<td>0.15</td>
<td>0.34</td>
<td>0.23</td>
<td>0.15</td>
<td>0.24</td>
</tr>
<tr>
<td>SMS - National</td>
<td></td>
<td>0.05</td>
<td>0.04</td>
<td>-</td>
<td>-</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>0.27</strong></td>
<td><strong>0.25</strong></td>
<td><strong>0.13</strong></td>
<td><strong>0.17</strong></td>
<td><strong>0.30</strong></td>
<td><strong>0.22</strong></td>
<td><strong>0.11</strong></td>
<td><strong>0.21</strong></td>
</tr>
</tbody>
</table>
# Prepaid International Tariffs

<table>
<thead>
<tr>
<th>Company Name</th>
<th>In TSHS</th>
<th>In US Cents</th>
</tr>
</thead>
<tbody>
<tr>
<td>CELTEL (T) LTD</td>
<td>530.40</td>
<td>0.44</td>
</tr>
<tr>
<td>MIC (T) LTD</td>
<td>523.92</td>
<td>0.44</td>
</tr>
<tr>
<td>TTCL</td>
<td>398.00</td>
<td>0.33</td>
</tr>
<tr>
<td>VODACOM (T) LTD</td>
<td>561.00</td>
<td>0.47</td>
</tr>
<tr>
<td>ZANTEL</td>
<td>491.40</td>
<td>0.41</td>
</tr>
<tr>
<td>BENSON ON LINE (BOL)</td>
<td>336.00</td>
<td>0.28</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>473.45</strong></td>
<td><strong>0.39</strong></td>
</tr>
<tr>
<td><strong>National Tariffs</strong></td>
<td><strong>252.00</strong></td>
<td><strong>0.21</strong></td>
</tr>
</tbody>
</table>
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COVERAGE

Celtel
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COVERAGE

MIC (T) LTD
NO ONE COVERS TANZANIA LIKE WE DO!

*FOR MORE INFORMATION ON ALREADY COVERED AREAS CONTACT CUSTOMER SERVICE.*
Conclusion:

- Liberalization and competition yields substantial benefits if properly implemented.
Thank you for listening
Asante

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