Regional Seminar for the Africa Region on Conformance and Interoperability Testing Centre(s)

4th - 6th July 2011 – La Palm Royal Beach Hotel Accra, Ghana

Conformance and Interoperability Challenges and Opportunities – Experience of Operators

Jacob Munodawafa – Executive Secretary/CEO

Southern Africa Telecommunications Association

5th July 2011
SADC Regional Economic Community

ICT/Telecoms/Postal Institutions

1980

6,928,600,000

Southern Africa Telecommunications Association

5th July 2011
## Statistics - African Economic Community

<table>
<thead>
<tr>
<th>Regional Organization</th>
<th>Area (km²)</th>
<th>Population</th>
<th>GDP (PPP) ($US)</th>
<th>Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African Economic Community</strong></td>
<td></td>
<td></td>
<td>in millions</td>
<td>per capita</td>
</tr>
<tr>
<td>AEC</td>
<td>29,910,442</td>
<td>853,520,010</td>
<td>2,053,706</td>
<td>2,406</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>5,112,903</td>
<td>251,646,263</td>
<td>342,519</td>
<td>1,361</td>
</tr>
<tr>
<td>ECCAS</td>
<td>6,667,421</td>
<td>121,245,958</td>
<td>175,928</td>
<td>1,451</td>
</tr>
<tr>
<td>SADC</td>
<td>9,882,959</td>
<td>233,944,179</td>
<td>737,335</td>
<td>3,152</td>
</tr>
<tr>
<td>EAC</td>
<td>1,817,945</td>
<td>124,858,668</td>
<td>104,239</td>
<td>1,065</td>
</tr>
<tr>
<td>COMESA</td>
<td>12,873,957</td>
<td>406,102,471</td>
<td>735,599</td>
<td>1,811</td>
</tr>
<tr>
<td>IGAD</td>
<td>5,235,604</td>
<td>187,949,977</td>
<td>225,049</td>
<td>1,197</td>
</tr>
<tr>
<td><strong>Other African Blocs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEMAC</td>
<td>3,020,142</td>
<td>34,970,529</td>
<td>85,136</td>
<td>2,435</td>
</tr>
<tr>
<td>SACU</td>
<td>2,693,418</td>
<td>51,055,878</td>
<td>541,433</td>
<td>10,605</td>
</tr>
<tr>
<td>UEMOA</td>
<td>3,505,375</td>
<td>80,865,222</td>
<td>101,640</td>
<td>1,257</td>
</tr>
<tr>
<td>UMA</td>
<td>5,782,140</td>
<td>84,185,073</td>
<td>491,276</td>
<td>5,836</td>
</tr>
<tr>
<td>GAFTA</td>
<td>5,876,960</td>
<td>166,259,603</td>
<td>635,450</td>
<td>3,822</td>
</tr>
</tbody>
</table>

---

1. **REC** stands for Regional Economic Community.
2. **CEMAC** refers to the Economic Community of Central African States.
3. **UEMOA** stands for the Union for Economic and Monetary Union of West Africa.
4. **GAFTA** refers to the General Agreement on Tariffs and Trade in Africa.
SATA Theme 2011/2012 → Universality and Affordable Access
Who are we, what we do and how we do it?
Collaboration

Regional and Global Collaboration and Partnerships

SADC, CRASA, SAPOA, ITU, RASCOM, AfDB, CTO, FIINA, KTOA

- Run joint programmes and collaborate on implementation of projects and initiatives

Signed MoUs -
Established collaborative partnership committed to facilitate cooperative initiatives in the area of ICT through joint research, workshops and seminars

Established framework of cooperation to promote programs & activities related to telecom issues & identify new areas of co-operation within the realm of ICT to satisfying the diverse needs of the telecom industry
Applications Driven by:
- Voice
- Data
- Internet

Infrastructure is critical for regional development

- Cable Copper
- Terrestrial Optic Fibre
- Submarine cable
- Mobile/Wireless - Radio
- Wireless – Satellite

Broadband Infrastructure Development

Southern Africa Telecommunications Association
Conformity Assessment

- Conformity assessment is a procedure adopted to demonstrate that specified requirements relating to a product, process, system, person or body are fulfilled.
- The procedure includes various steps, the most important being: testing, certification and the supplier’s declaration.

Source: ITU
Interoperability

1. Interoperability is the ability of two or more systems or applications or network management products and services from different suppliers or vendors to exchange information and mutually to make use of it.

2. Tests are performed in an Industry Interoperability Initiative where various manufacturers cross-connect products to identify interoperability performance.

Source: ITU
Type Approval and Testing facilities – by regulators / Operators

- Type approval test is conducted on samples that represent the whole production for the purpose of determining conformity.
- Periodic type approval tests are intended to verify, as part of factory surveillance, that conformity is maintained over time.
- Tests can be performed in the same premises where products are manufactured (1st party), in the customer premises (2nd party) or in an external and independent laboratory (3rd party).
Factors Contributing to Technical Competence and Capacity

- Qualifications, training and experience of the staff
- Correct equipment – properly calibrated and maintained
- Adequate quality assurance procedures
- Proper sampling practices
- Appropriate and valid testing procedures and methods
- Traceability of measurements to National/international standards
- Accurate recording and reporting procedures and
- Suitable testing/inspection facilities
Importance of Conformity and Interoperability

Key for sustainable development

- Understanding and participation by the regulators, operators and manufacturers is must for a win-win situation

- Unless pro-actively addressed can become a serious industry hurdle.

- Real developmental opportunities exist in the light of strong dynamics in the industry for sustainably produced technology and products
Operators Multi-Vendor Environment
**Situation and Challenges**

- Core & access layers are distributed over many vendors
- Operators need to test new products before implementation leading to time & cost issues
- Smooth integrations of multiple vendors
- Technologies is a key element for stable operations
- Proper quality of service
- Low conformance to standards generates conflicts between operators and vendors especially when affecting customer experience

---

**Southern Africa Telecommunications Association**

5th July 2011
Situation and Challenges (cont)

- Proprietary NOC through the SNMP Servers cannot manage multi vendor CPE leading to difficult provisioning and management
- Difficulties in maintaining operations
- Extra configurations and customization always required
- Added operational costs and resources
Conformance and Interoperability Opportunities

- Win – Win Situation for Vendors, Operators and Regulators
- Operators will have more flexibility with their networks & their architectures
- Smooth integrations of multiple vendors
- Vendors will save their skilled labor scattered with many operators to support multiple trials
Conformance and Interoperability Opportunities (cont)

- Cost (estimate - 35%) and Time Saving by both Operators, Regulators and Suppliers
- Vendors get faster access to markets
- Faster decision making by Regulators and Policy Makers – no wait until proven approach
- Faster deployment by Operators
- Customers enjoy future technology and services today
Activities on Conformance and Interoperability

- Operators and manufacturers through SATA Programs share their experience and knowledge regarding interoperability
- Collaborating and working very closely with the ITU on Conformity and Interoperability Programs
- As a SADC regional representative of the operators, we are fully involved in the program coordination
Recommendations for support in transforming Challenges into Opportunities

- Continued close cooperation between the ITU, Manufacturers, Operators, Regulators and Policy and other standards bodies
- Continuous programs on conformance and interoperability
- Through the ITU, Local and international standard bodies help in establishing and accrediting regional Test Centres/LABs
- Training for enhancing operator skills regarding standards in technology.
Thank you for your interest and attention