A Report on Migration from Analogue to Digital Broadcasting in Ghana

Broadcasting Policy, Legal & Regulatory Environment

- **Policies**
  - NMC National Media Policy, 2000
  - National Telecommunications Policy (NTP), 2005

- **Laws**
  - Television Licensing Decree, 1966, (N.L.C.D. 89)
  - Television Licensing (Amendment) Law, 1991 (P.N.D.C.L. 257)
  - Ghana Broadcasting Corporation Decree, 1968, (NLCD 226)
  - National Media Commission Act, 1993 (Act 449)
  - National Communications Authority Act, 2008 (Act 769)
  - Electronic Communications Act, 2008, (Act 775)

- **Regulations & Guidelines**
  - Television Licensing Regulations, 1991 (L.I. 1520)
  - NMC Broadcasting Standards, 2000
  - National Communications Regulations, 2003, (L.I. 1719)
  - NMC Guidelines for Local Language Broadcasting, 2009
### Composition of Communications Space By Number in operation

<table>
<thead>
<tr>
<th>Category</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<td>Cellular</td>
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<td>ISPs</td>
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<td>FM Radio</td>
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<td>84</td>
<td>127</td>
<td>129</td>
<td>144</td>
<td>171</td>
<td>190</td>
<td>220</td>
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<tr>
<td>TV</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

### Composition of Accesslines up to June 2011

- Kasapa (Expresso)
- Millicom (Tigo)
- GT/Vodafone Mobile
- Zain (Airtel)
- Scancom (MTN)
- GT/Vodafone Fixed
- Zain Fixed

![Graph showing the composition of accesslines up to June 2011](image)
Mobile Telephony Penetration Rates 2000 – 2011

Distribution of FM Stations in Ghana as of 2011
Distribution of Types of TV Stations in Ghana as of 2010

Overview of Existing Analogue Terrestrial TV Signal Distribution

- GTV has
  - 30 transmitters operating in VHF Band III
  - 9 repeater stations operating in UHF Bands IV & V
- Private broadcasters
  - TV3, Metro TV, TV Africa operate in Band III
  - Net2 TV, Viasat 1, e-TV Ghana, Crystal TV, Coastal TV operate UHF transmitters
Challenges of Existing Analogue Regime

- Poor Infrastructure sharing/Co-location
  - Each broadcaster carries own signals
  - Combined Network management costs for the industry are high
  - Transmitters are located in varied directions for the same coverage target resulting in:

- Poor reception conditions
  - Use of a single directional antenna presents serious reception challenges:
    - Ghosting
    - Blurr images
    - Lines across images
    - Poor sound, etc
  - Environmental aesthetics are badly affected by the sight of long bamboo poles hoisting antennas

Why Migrate?

- To comply with and adopt the tenets of the GE-06 Agreement.
- To rapidly adopt spectrum efficient methods in the management of the scarce RF spectrum
  - to broaden its utility as a resource in the interest and benefit of stakeholders.
- To prevent dumping of obsolete analogue TV equipment into the country
- To enhance the quality and experience of TV viewers in Ghana
STRATEGY FOR THE TRANSITION FROM
ANALOGUE TO DIGITAL BROADCASTING
IN GHANA

Governance/Leadership

☑ Overall Leadership provided by the Government of Ghana:
  ✓ All policy decisions approved by Cabinet
  ✓ All Legal instruments to be approved by Parliament

☑ Digital Broadcasting Migration Committee:
  ✓ Chaired by Honourable Minister of Communications
  ✓ Membership of 13 from all stakeholder institutions
    ▪ Ministries, Parliament, Regulators, State Broadcaster, Private Broadcasters
  ✓ Responsible for:
    ▪ policy implementation
    ▪ integrated planning
    ▪ budgeting
    ▪ communication with the public
    ▪ performance monitoring
Free-to-Air TV Strategy

- Independent DTT Transmission Entity
  - Being established through Public Private Partnership
  - Ghana Broadcasting Corporation (GBC) and Ghana Independent Broadcasters Association (GIBA)
  - Preliminary discussions pointing to 50%:50% risk & reward
  - Discussions led by Public Investment Unit of MoFEP
  - RFP for DVB-T2 network under development in lieu of PPP

Standards

- Transmission standard - **DVB-T2 (EN 302 755)**
- Television presentation formats:
  - **standard definition (SDTV)** until analogue switch off (ASO)
  - **high definition after ASO**
- Compression technology:
  - **H.264/AVC/MPEG-4 (part 10)** and
  - **Advanced Audio Coding (AAC)**
- Application Programming Interface (API) for additional and interactive services - **MHEG-5**
Conformance Strategy

- Appointment of test lab for STB Compliance testing
- Licensing of compliant STBs to use certification logo

- Logo would confirm to consumers that the receiver is Ghana DTT compliant.
- Publication of STB Manufacturers ‘White’ list.

Analogue Switch-off Date

- 31st December, 2014 (3 yr double illumination)
Public Awareness

**Awareness about Digital TV**

- **Do you know about Digital Television? I know...**
  - Yes, I heard but I don’t know when
  - No

**Awareness about 2014 analogue switch-off**

Public Education Strategy

- **National**
  - to raise overall awareness

- **Regional**
  - to increase awareness and promote understanding

- **District**
  - to promote understanding and encourage action

- **Local Area**
  - to promote understanding and encourage action

- **Message should be simple and straightforward**
- **Materials should be transmitted in at least the languages identified to be widely spoken in Ghana**
- **All media platforms should be used**
- **Outreach events to schools, churches, mosques, etc.**
Sample promos

Sample Promo III
## Digital Migration Poster

**It's Digi-time in Ghana!**

- Better Picture Quality
- Better Sound Quality
- More Stations
- More Interaction

### Switchover Timetable

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDBMTC Final Report to Govt</td>
<td>13th Jan 2010</td>
<td>30th Aug 2010</td>
</tr>
<tr>
<td>Development of Legal Framework (Amendment of Electronic Communications Act)</td>
<td>Sept 2010</td>
<td>December 2010</td>
</tr>
<tr>
<td>Public Awareness Campaign</td>
<td>September 2010</td>
<td>December 2014</td>
</tr>
<tr>
<td>Establishment of National Digital Migration</td>
<td>January 2011</td>
<td></td>
</tr>
<tr>
<td>Implementation Body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licences for Digital TV</td>
<td>3Q 2011</td>
<td></td>
</tr>
<tr>
<td>Nationwide Roll-out of Digital TV (Simulcast Period)</td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Coverage of all Regional Capitals &amp; environs</td>
<td>By December 2012</td>
<td></td>
</tr>
<tr>
<td>Phased Analogue Switch-off</td>
<td>To be determined according to locations and conditions</td>
<td></td>
</tr>
<tr>
<td>Completion of Switchover</td>
<td>31st December 2014</td>
<td></td>
</tr>
<tr>
<td>Appraisal Report of Switchover Process</td>
<td>6 months after completion of switchover</td>
<td></td>
</tr>
</tbody>
</table>

13 Oct 2011
Identified Risks

- Low public awareness:
  - could lead to a slow uptake of the service or conversely, panic when the 2014 analogue switch-off date is announced.

- Uncertainty about funding sources which could stifle implementation of the project.
  - Funding for consumer incentives e.g. help scheme for economically vulnerable, etc.

- Absence of a legal framework for ASO:
  - to avert any risks of legal suits from civil society organisations and/or pressure groups.

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**It’s Digitime in Ghana!**

Thank You!
Contact Info

Digital Broadcasting Migration Committee (DBMC)

Email:  
edmund.fianko@nca.org.gh  
secretariat.dbmc@nca.org.gh

Tel:  
+233 (0)302 776621

Fax:  
+233 (0)302 743669

Websites:  
www.koodigi.org

www.nca.org.gh