AIBD/ITU/ABU Regional Workshop on
Digital Terrestrial Broadcasting TV and Radio Policy and Transition
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Session 3: Issues and Challenges in Digital Broadcasting Transition/Deployment

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Contribution documents to ITU-D SG1 Question 8/1

**ITU-D Study Group 1: Question 8/1**
Examination of strategies and methods of migration from analogue to digital terrestrial broadcasting and implementation of new services

**Thailand Case Study:**
Transition to Digital Terrestrial Television Broadcasting
Document SG1RGQ/227(Rev.1)-E

**Digital Terrestrial Television in Thailand:**
Frequency planning and technical aspects
Document SG1RGQ/218-E
Lesson Learned on DSO transition in Thailand
(Country Case Study)

Set up trial
➢ Trial on the DTT system at the early transition before fully commercial launch was important to test the whole system and trial broadcasting markets.

DTTB Network Rollout
➢ Sharing infrastructure and facilities
➢ Ensuring that network rollout, network coverage an network quality of every MUXs are ready to provide broadcasting service the same period for fair competition.
➢ Regular network quality monitoring
➢ Setting proper Service Availability, faster recovery, redundancy system/location should be well planned in network design in the first place.
➢ Utilize existing antenna system and site facilities of existing network operators

Must Carry Rule
➢ NBTC enforced the rule of 'must carry' for the commercial and public service broadcasters to commence broadcasting DTV content from day one on satellite and cable TV which already cover more than 70% audiences in Thailand to increase DTV eye balls.
Lesson Learned on DSO transition in Thailand
(Country Case Study)

Digital TV Subsidy Program
- Collaboration between the agencies who distribute the set-top-box coupons
- DTV Coupon should be distributed to areas whereas DTTB signal covered.
- DTV coupon value should be enough to cover a qualified set top box with necessary accessories to receive signal
- Proper training for the STB installers prior to distribution of coupon and STB Receivers

Collaboration
- Collaboration with Vocational school and network operators to help people on STB Receiver Installation, also set up advisory group to support installation.
- Develop application or tool to help the people to equip and tilt the antenna correctly like ‘DTV Service Area’
- Having variety of receiver types like portable DTV Receivers e.g. smartphone, tablet, or portable.
- Selecting proper antennas type and model for Set-Top-Box is important to receive signal well.
- Set up advisory group either by dedicated group or volunteer group to support installation.

Collaboration
- Collaboration with industry: ATV and DTV broadcasters, DTTB network operators, manufacturers, retailers
- Collaboration with government agencies and public agencies in national and local level are also key factors to drive a success of digital transition.
Lesson Learned on DSO transition in Thailand

**DSO Communication**
- Mass communication to public, simply key message
- Getting engagement from government agencies in state and local level, public and relevant organization.
- Social media Communication such as facebook, youtube, twitter

**Audience Measurement: Rating of Television Broadcasting**
- Rating survey should be conducted to cover all broadcasting platforms including digital platform (i.e. internet) to have real broadcasting rating and user behavior.

**Call Center and Information to Support Customer**
- Cooperation with DTTB network operators to help people on installation the DTTB receivers, and also build confidence on DTTB network quality.

**Capacity Building**
- Continuous organizing capacity building on Digital Broadcasting technical, regulation aspects, content development
ITU-D Study Group 1: Question 8/1
Examination of strategies and methods of migration from analogue to digital terrestrial broadcasting and implementation of new services

Final Report Question 8/1 Document 1/419-E

• CHAPTER 1 – Best practices to accelerate the transition from analogue to digital television broadcasting and bridge the Digital Divide with the deployment of new services
• CHAPTER 2 – Communication strategies to accelerate the process of public awareness about digital broadcasting
• CHAPTER 3 – Spectrum issues related to the Analogue Switch-Off process
• CHAPTER 4 - Use of released spectrum and implement new services and applications
• CHAPTER 5 - Countries case studies on transition to digital broadcasting and the use of the digital dividend frequency bands
ITU-D Study Group1: Question 8/1
Examination of strategies and methods of migration from analogue to digital terrestrial broadcasting and implementation of new services

Future of Question 8/1 – topics of study

• **Broaden the scope of the question** not restricting it to Analogue to Digital Television Broadcasting:
  • Evolution of the Digital Transition in Broadcasting [DVB-T to DVB-T2, SD to HD, MPEG2 to MPEG4, etc.];
  • Digital Radio (Sound) Broadcasting.

• **Use of the released spectrum** to new services and applications, including collection of case studies and best practice:
  • Bridging the digital divide;
  • Development of rural communications.

• Collection of best practices and countries’ experiences on interference mitigation between broadcasting and new services;

• Implementation of **new services and applications**:
  • Community and Regional TV on DTV;
  • New Broadcasting Services: 3D, 4K, 8K, etc.; multimedia/interactive services; mobile television.

• **Economic aspects** of the deployment of new broadcasting services and applications:
  • Deployment costs.

• **Impact of other television distribution platforms** (IPTV, Cable, Satellite, etc.) on terrestrial broadcasting market.
ITU-D Study Group 1: Question 8/1
Examination of strategies and methods of migration from analogue to digital terrestrial broadcasting and implementation of new services


- CHAPTER 1 – Communication planning to accelerate the process of public awareness about digital broadcasting
- CHAPTER 2 – Information Campaigns for the general public
- CHAPTER 3 – Media Communication Campaign
- CHAPTER 4 – Communication strategies targeted low-income population

Reference / Contribution from Brazil, Germany, Hungary, Netherlands, Niger, Russia, Serbia, and Thailand
Guideline on Digital Communicationn Strategy from Transition from Analog to Digital Terrestrial Broadcasting Document 1/421-E

Chapter 1: Communication planning to accelerate the process of public awareness about digital broadcasting

Brazil

Hungary

Thailand

Niger

Reference / Contribution from Brazil, German, Hungary, Netherlands, Niger, Russia, Serbia and Thailand
Over the Top (OTT)

- OTT impact revenue stream of broadcasters
- User behavior change on viewing TV/Radio Broadcasting services
- NBTC Project: NBTC OTT Competition Regulation (completed Jan2017)
- OTT Markets in Thailand
  - Reference to DAAT-AVoD: Market price 143 million US (> 50% is Facebook, 33% is Youtube)
- Way forward OTT
  - Study OTT services and regulation, discussion with players/stakeholders, decide whether regulate OTT services, and then develop rule/means.
## OTT categories

<table>
<thead>
<tr>
<th>OTT TV Provider</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent OTT TV Provider</td>
<td><strong>1) Mass Content</strong></td>
</tr>
<tr>
<td>Newly established OTT TV providers who are not related to any existing players</td>
<td>Content which is in the interest of the public or reflects the mainstream culture</td>
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<td></td>
<td>Available in the dominant language or foreign languages with subtitle</td>
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<tr>
<td>OTT TV from Content Producer</td>
<td><strong>2) Niche Content</strong></td>
</tr>
<tr>
<td>Established by movie or TV producers. They have a valuable content to start with</td>
<td>Content produced to serve a specific group of people</td>
</tr>
<tr>
<td>HBO NOW, NBA LEAGUE PASS, ML.TV, BBC, iPlayer</td>
<td>E.g. sports, cartoons and cooking shows</td>
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<tr>
<td>food, NOWTIME, VUDU, plus</td>
<td></td>
</tr>
<tr>
<td>OTT TV from Pay TV Provider</td>
<td></td>
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<tr>
<td>Established by Pay TV providers to provide as an add-on feature to existing satellite, cable and IPTV customers.</td>
<td></td>
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<tr>
<td>Amazon Prime, iflix</td>
<td></td>
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<tr>
<td>OTT TV from Telco Providers</td>
<td></td>
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<tr>
<td>Established by Telco providers who are benefit from utilizing their own network and subscriber base.</td>
<td></td>
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<tr>
<td>GO, Fios Mobile, sling</td>
<td></td>
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<tr>
<td>OTT TV from Free TV Provider</td>
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<tr>
<td>Established by Free TV broadcasters to be an alternative distribution channel</td>
<td></td>
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<tr>
<td>Toggle, presto, hulu, plus, Stan.</td>
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</tbody>
</table>

Reference: Project – NBTC OTT Competition Regulation
### Categories of OTT TV Monetization Model

#### Free Platform

**Advertising-driven (AVoD) and OTT TV as a Feature**

AVoD offers free-view platform with pop-up ad banners and ad video played at the start and/or periodically throughout the video.

While pay TV uses OTT TV as a feature to retain its customers.

- dailymotion
- 3HD
- YouTube
- hulu
- vevo

#### Freemium

A hybrid model offering a combination of free, advertising-driven content, transactional and/or subscription-based VoD.

Customers can choose to enjoy advertising-driven videos for free, or subscribe to watch ad-free videos.

- YouTube Red
- huluPLUS
- vimeo
- Spotify
- Netflix

#### Premium/Paid Platform

**Subscription (SVoD) and Transactional (TVoD)**

For SVoD, customers gain unlimited access to the digital content by making monthly/annually, recurring subscription to the operators.

For TVoD, customers pay each individual VoD program and watch in limited time (PPV) or anytime they want (DTO)

- Amazon Prime
- PrimeTime
- HBO
- Hollywood
- iFlix

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Reference: Project – NBTC OTT Competition Regulation
OTT Devices

Reference: Project – NBTC OTT Competition Regulation
VoD Consumption

Reference: Project – NBTC OTT Competition Regulation
Size of TV Screen

Reference: Project – NBTC OTT Competition Regulation
Pay TV players/markets has been decreased.

Reference: Project – NBTC OTT Competition Regulation
3 types of OTT players in Thailand

<table>
<thead>
<tr>
<th>Independent OTT TV Provider:</th>
<th>OTT TV from Free TV Provider:</th>
<th>OTT TV from Telco Providers:</th>
<th>OTT TV from Pay TV Provider:</th>
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<tbody>
<tr>
<td>Local OTT TV</td>
<td>CH7 Web &amp; application:</td>
<td>Workpoint</td>
<td>true visions anywhere</td>
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<td><a href="http://www.ch7.com/live.html">www.ch7.com/live.html</a></td>
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<td>CH3 Application:</td>
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<td>Regional/Global OTT TV</td>
<td>CH8 Application:</td>
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<td>CH8: ThaiCh8</td>
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</tbody>
</table>

- No OTT TV provider from Content provider or collaborated providers

Reference: Project – NBTC OTT Competition Regulation
OTT TV in Thai: SVoD

2558 OTT TV Revenue in Thailand (THB)

Netflix:
- Started in Thailand in Jan 2559 (2016)
- Netflix could become a dominant player in Thai SVoD market in the future because of its reputation and economy of scale.

AIS Play:
- As a feature for AIS Playbox customers
- Offer exclusive contents i.e. GMM Bravo, Kik-Doo Taa Ngao Seang
- Act as an application portal for HOOQ, Doonee, etc.

True Visions Anywhere:
- Launched as a feature for TrueVisions customer in 2556
- Currently added SVoD (starts at 100THB/m) and TVoD packages for customers who want to watch only via the application

35 THB=1 US

Reference: Project – NBTC OTT Competition Regulation
OTT TV in Thailand: SVoD pricing

- The decreasing in price reflects the competition in the market, in particular for truevisions.
- truevisions has occupied the mass segment, but it lower the price in order to offset with more subscription base they gained.
- SVoD pricing of independent providers is lower than 200 THB/m

Reference: Project – NBTC OTT Competition Regulation
Broadband Growth

Migration to 3G/4G is major driver

Reference: Project – NBTC OTT Competition Regulation
Regulation: study on each aspects-Prohibit content, On-line rating, Youth Protection, Local Content Quota, Advertising

Reference: Project – NBTC OTT Competition Regulation
OTT: International Benchmarking

OTT TV Development Stage

- **Infancy**
  - OTT TV market started in B.E. 2557 and steadily gaining importance
  - Started OTT TV from B.E. 2553. OTT TV need to apply for a license from IMDA

- **Expansion**
  - From B.E. 2547, numerous OTT TV platforms emerged in South Korea. Successful OTT TV are the local ones.
  - UK launched its first OTT TV platform in B.E. 2549.
  - Started OTT TV from B.E. 2553 and is the home to the regional start-up, "iflix", which has expanded to Thailand

- **Maturity**
  - Started OTT TV since B.E. 2548 and is the home to global OTT TV players such as YouTube, Netflix and Amazon Prime
  - From B.E. 2549, OTT TV platform started. In the past 2 years there was a high level of competition in the market. One local OTT TV closed down.

Reference: Project – NBTC OTT Competition Regulation
OTT: International Benchmarking

Reference: Project – NBTC OTT Competition Regulation
OTT: International Benchmarking

**Dominant Players**

- **Australia**: Australian choose Netflix over local ones to stream movies and series. Popular local OTT TV are from traditional TV players.
- **Singapore**: YouTube is the go-to choice for catch-up TV rather than Toggle. Popular local OTT TV are from traditional TV players.
- **Malaysia**: Free OTT TV platforms dominate Malaysian OTT TV market. Popular local OTT TV are from traditional TV players.
- **Thailand**: Thai prefer free platform for online video contents. Independent OTT TV players dominate SVoD OTT in Thailand.

**Reference**: Project – NBTC OTT Competition Regulation
Challenges

- Technology/Transmission Standard
- Spectrum management/licensing
- Network Planning, Deployment, Monitoring
- Receivers
- DSO Communications
- Monitoring transition rate /audience measurement
- ASO as planned
- Revenues from advertising
- Content Development
- Broadcasting Channels/Platforms
- OTT Broadcasting
Thank You