Mobile TV Broadcasting

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Introduction

- Mobile TV broadcasting involves bringing TV services to the mobile phones

- Mobile TV offers business opportunities for mobile network operators (MNO), broadcasters and handset vendors

- Market research of Mobile TV services has indicated a high commercial demand for Mobile TV services

- Mobile TV has been expected to take-off rapidly since 2006 with China being the largest potential market
Market Research (1/2)

• Informa Telecoms and Media
  – more than 210 million people across the world will be watching TV on mobile devices by 2011
  – The Asia-Pacific mobile TV growth would have more than 95 million subscribers in the region by 2011.

• Jupiter research
  – Another new report from Jupiter research, estimated Mobile Broadcast TV would reach almost 120 million users by 2012
  – DVB-H will be the dominant transmission standard
  – Worldwide annual consumer spending on mobile broadcast TV services is expected to exceed $6.6 billion by 2012.

• According to Accenture and IDC estimates
  – The mobile TV market value will be worth $30 billion by 2009.
Market Research (2/2)

Juniper Research

- These market research made MNOs to do trials, pilots and some commercial launches

- However mobile TV take-off has been slow and both Nokia and MediaFlo have recently acknowledged that mobile TV hasn’t picked up the traction they’d expected
DVB-H and DVB-SH Launches and Trials

DVB-H LAUNCHES
- Albania, Finland, India, Italy, Kenya, Malaysia, Namibia, Nigeria, the Philippines and Vietnam.
- Further DVB-H commercial launches are expected this year in Austria, France, Indonesia, Germany, the Netherlands, Spain, Switzerland and Russia [3].
- On 14 Dec 2007 Alcatel-Lucent, 3 Italia and Italian public broadcaster RAI launched the first DVB-SH trial.

DVB-H TRIALS
- More than fifty DVB-H technical and commercial trials have taken place all over the world.
- There are DVB-H trials ongoing in Belgium, Canada, France, Germany, Latvia, Libya, Malaysia, Poland, Singapore, South Africa, Taiwan and Uruguay.
- France also had a DVB-SH technical Pilot which was successfully completed in December 2007.

DVB-SH TRIALS
- Alpha trial in USA is expected to begin following March satellite launch this year.

TDtv TRIALS
- European Union wants DVB-H as the EU standard for mobile TV
- But Orange UK and T-Mobile UK have announced plans to jointly pilot mobile TV and multimedia broadcast services using Next Wave Wireless’ UMTS MBMS-based TDtv beginning second half of this year, 2008.
Charging Models

• The charging model for Mobile TV services vary from country to country

• They could be daily, weekly or monthly packages, with or without other services included for Pay-as-you-go users.

• Alternatively, subscribers can per month getting free access to all digital mobile TV services, free national calls and a GB/month of mobile broadband Internet.

• However, according to research, the most preferred payment is the monthly subscription
**Complementary services and different media delivery (Unicast, Multicast & Broadcast)**

**Mobile TV Streaming**
Unicast streaming video on demand and live streaming via GPRS and UMTS

**Multimedia Broadcast Multicast Service (MBMS)**
Improved scalability of existing GPRS and UMTS media delivery at lower costs

**Broadcasting**
(DVB-H, DMB, ISDB-T, FLO)
Tailored to limitations of mobile devices (e.g. power consumption and resolution)

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Cellular network is essential in each scenario to offer interactivity, personalization and charging.
Complementary services and different media delivery (Satellite Broadcast)

- **S-DMB high power Geo-stationary satellite**
- **Satellite feeder in PSS band**
- **UTRA FDD WCDMA in MSS band**
- **Terrestrial repeater feeder in PSS band**
- **2/3G handset S-DMB enabled**
- **2/3G base station** + **S-DMB terrestrial repeater**
- **2/3G RA Network**
- **BSC/RNC**
- **2/3G Core Network**
- **Broadcast/Multicast Service center S-DMB enabled**
- **Gmb/Gi**
- **Content networking**
- **Content Provider**
- **GSM/UMTS Unicast Interactive link**
- **S-DMB Broadcast/Multicast Distribution link**
## Mobile TV Broadcasting Technologies

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Regulatory Frameworks

Mobile TV frameworks for broadcasting are more established in most countries and comprise issuing a

- **Media license to a broadcasting company**
  - One broadcasting company can obtain several media licenses for different channels

- **Frequency license to a broadcast network operator**
  - The frequency license specifies the regulatory framework for operating, managing the network and providing coverage as required.
  - In Finland, the broadcast network operator is not allowed to function as a service operator,

Mobile TV framework in other countries, e.g. Germany it differentiates 3 license types, i.e.

- Media license, frequency license and platform license

In USA the platform concept and media license don’t exist and all 6 licenses had been acquired by Qualcomm.
Broadcast model

1. John Acquires capacity from Bob
2. John sells the existing portfolio to customers
3. John subcontracts Steve to take care of Customer relationship management (CRM)
Mobile Operator Business Model

1. Steve acquires capacity from Bob
2. Steve makes deals with John
3. Steve to take care of Customer relationship management (CRM)
Wholesale Business Model

1. Bob makes deals, buy content from John
2. Bob takes content to Steve makes deals
3. Steve to take care of Customer relationship management (CRM)
Current Vendor Strategies

• Broadcast network operators and broadcasters
  – Have been influenced by the regulatory framework in their countries

• Mobile Operators business model choice
  – Initial investment
  – Financial return
  – Availability of technology
  – Reliable and credible partnerships
  – Control over their customers

• Handset makers: regionally and support of a particular platform
  – DVB-H a backing of industry giants such as Nokia, which is the main handset supplier for the technology.
  – Endorsed by the European Commission to be Pan-European Standard
Challenges (1/2)

• Viewers don’t want to pay a subscription fee to receive the same TV content on mobile that they already get at home

• Free-to-air business models have proved to be a challenge for DVB-H and MediaFlo
  – Early last year Telegent developed a chipset enables users to receive analog and digital free-to-air broadcasts and DVB-H

• Screen size, Video quality

• #Phones supporting DVH-choice is limited, e.g. Nokia N92 and the N77, may have to increase its DVB-H phones offerings.
Challenges (1/2)

Regulatory frameworks

According to Media Partners Asia and reported by Asia Media Journal.

- By the end of 2007 there were more than 17 million mobile TV users in Asia.

- In South Korea and Japan the business models for mobile TV remain unprofitable due to government regulation.

- Japanese broadcasting regulations prohibit advertisers from generating profit and restrict content developers from producing exclusive programs for mobile.

- Similarly, government regulation is limiting opportunities to generate advertising revenue in Korea.

- The article opines that a mix of free and paid services are critical to profitability and growth, but the regulations hamper the service providers using these business models.
Conclusion

Mobile TV take-off success will depend on the

• Careful design of services
  – Attractive content

• Marketing
  – Sensible pricing

• Technology
  – Choice of optimum technology evolution

• Platform
  – Handset: easy to use, good quality video

• Value chain
  – Reliable & credible business partnerships

• Good regulatory frameworks for mobile TV businesss
Thank You!