Broadcast/unicast complementarity for mobile TV and technology/spectrum issues

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1. Introduction
2. Broadcast/unicast complementarity for mobile TV
3. Technology/spectrum issues
Introduction

• Mobile TV is not just one mobile multimedia service among others …

• This is going to be a “killer application” on a mass market
Key conditions are fulfilled for the growth of mobile TV/video

- Deployment of EDGE / 3G / 3G+ networks allowing to offer multimedia services and to improve the quality of users’ experience
- Increase of Mobile broadband handset penetration:
  - In Europe, the penetration of 3G/3,5G handset will be 1/3 by 2008 and 62% by 2011 (1)
- Development of mobile broadband offers and usages
- Among them, TV/Video should be a key service:
  - Mobile TV is considered as a relevant service for mobile users: concluding a DVB-H trial in Stockholm, 87% of the participants said that the service left a positive impression (2)
  - The service is a new way to watch TV and a new way to use his phone: “People are naturally curious about new technology and Mobile TV has definitely exceeded my expectations. It clearly creates a new need” (3)

(1) Jupiter Research October 2006
(2) DVB-H Trial in Stockholm April 2007
(3) Trial Telia Nokia January 2007
Introduction

Mobile TV actually can include a wide range of services:

- Normal TV in mobility
- Interactivity and advertising
- Time shifting: PVR etc…
1. Introduction

2. Broadcast/unicast complementarity for mobile TV

3. Technology/spectrum issues
Broadcast/unicast complementarity for mobile TV

- **Commercial unicast Mobile TV services already exist**, as part of 2G+/3G/3G+ services: Orange has launched such services in countries where present.

- This is **successful**: # 700 000 Orange’s active mobile TV users across Europe by mid 2007

- **Up to 60 channels** are available

- Under 3G+ coverage: “HD mobile TV” offers **a quality of video/audio just as good as DVB-H**

- ... But this service should be enhanced  ➔  ...
Broadcast/unicast complementarity for mobile TV

• Basic service need of mobile TV Customers is to get access, wherever possible, to:
  1. large audience live programs, related to events, sports etc.
  2. and, at different times, specific interests programs chosen among a maximum number (not necessarily live programs)

... and all these programs should appear as one single set of user friendly services (i.e. “Unified Experience”)

• Solution:
  – Broadcast is optimal for need 1
  – Unicast is more adequate for need 2

.broadcast/unicast combination is needed to cover the two ...
  ➔ And, in addition to fulfill the basic requirements of a TV service, this combination, due to the uplink, offers the opportunity to enhance the customer promise with interactive TV services
Broadcast/unicast complementarity for mobile TV

Complementarity of services, QoS and radio coverage

- improvement of coverage and QoS at home can be provided with a combination of wireless access to fixed broadband and convergent mechanisms
Broadcast/unicast complementarity for mobile TV

the promise: deliver a smooth experience

“Richmedia” applications provide user-friendly interface

- quick access to the service
  - Hard/soft Key
  - Home screen

- few interactions
  - 80% of usages done by Joypad

- fast use: channel switching, handover...

- seamless use over cellular, broadcast, Wifi...

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1. Introduction
2. Broadcast/unicast complementarity for mobile TV
3. Technology/spectrum issues
Technology/spectrum issues

- Unicast best technology is obviously UMTS and its “children”: 3G+/IMT-LTE ...

- whereas the choice of a broadcast technology is a more open issue ...
DVB-H, T-DMB and Media FLO have to share broadcast bands with other broadcast services.

MBMS/FDD & TDD and DVB-SH are TV broadcast services in 3G bands.

MBMS/TDD band is often already included in existing 3G licenses (TDD 3G band segment).

DVB-SH requires new licenses (Mobile Satellite Service 3G band segment).
Technology/spectrum issues

Due to spectrum scarcity, whatever the broadcast technology:

• Network operators need to share frequencies and access network…

• and identify means to provide competitive service offers

⇒ Difficult balance between cooperation and competition

⇒ network issues: in addition of radio access technology, Conditional Access System (CAS) and Electronic Service Guide (ESG) characteristics are key issues
In Europe, the DVB-H technology leads the way in the deployment of broadcast networks. But …

European initiatives show that broadcast and mainly DVB-H is becoming a standard.

But DVB-H is also facing uncertainties linked to regulatory and business issues in some countries.

Examples:

- **UK**
  - Frequencies availability and allocation process > 2011
  - Licenses cost

- **Spain**
  - Licenses attribution process roadmap
  - On-going discussions on Business Model between players and regulatory authorities

- **Switzerland**
  - The OfCom will soon launch a beauty contest for the attribution of one single DVB-H license
  - On-going discussions on Business Model between players and regulatory authorities

- **France**
  - License attribution process roadmap
  - Frequency availability before and after the digital dividend?
  - On-going discussions on pending issues between players and regulatory authorities

If delayed, DVB-H may have to compete with alternative technologies in some countries.
Technology/spectrum issues

Orange Group’s strategy for broadcast mobile TV:

• “Priority” given to DVB-H, where Ecosystem is adequate

• But not “exclusivity”:
  – DVB-H/UHF frequencies not available in some countries (fi UK)
  – Even where available in given countries:
    • these frequencies may not be available nationwide (coexistence with analog TV and DTT): opportunity of hybrid broadcast technologies?
    • the local DVB-H business model may not be satisfactory: opportunity to compete with another technology?
    • ...
thank you!

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