Session 2:
Results from Daidalos activities on converging Broadcast and mobile networks

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Daidalos Broadcast Workshop
October 19th, 2005, Heidelberg

What is Broadcast (in the DAIDALOS context) ?

- Broadcast **Networks / Technology**
  - DVB (-T, -S, -H) *(-S and –H in DII)*
  - MBMS
  - Wireless LAN (broadcast mode)
  - WiMax *(DII)*
- Broadcast **Services**
  - Carousel (Traffic / airport information)
  - Multimedia Multicast (sports events)

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Telco vs. Broadcast Networks

	Telecommunication	Broadcasting
ADVANTAGES	• Bi-directional • Strong and powerful players • Strong governmental support • Aggressive market strategy • Mature markets	• Relatively wide band • Can carry large amounts of data • Very reliable reception • Suitable for portable and fixed reception • Mass markets
DISADV	• Narrow band channels • Quality of services goes down with traffic • Various systems and incompatible operators	• One way only • Lack of spectrum

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Value-added Broadcast Services

- Existing live audio/video contents:
  - TV and radio contents (MPEG2)
- New live audio/video contents:
  - Interactive associated content (MHP), EPG
  - IP streaming (WM9, H264, MPEG4) => TV Mobile Phone
- Downloaded contents:
  - Data carrousels: AV clips, music, news, http servers
  - Games
  - Local based content, local based storage
- IP Data contents:
  - Notification
- Vehicle-centric services:
  - Safety: real time alert, traffic conditions, emergency call
  - Road guidance: dynamic navigation, localisation
  - Travel information: weather, tourist information, event notification

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Mobile/Broadcast Networks Synergies

- Interest for broadcast environment:
  - To enrich existing broadcast services: interactivity, personalisation
  - To valorise more the value added contents

- => Use mobile networks to personalise the services

- Interest for mobile environment:
  - To enrich content to increase the revenues
  - To limit infrastructures investments (UMTS)

- => Use broadcast network for high bit rate component for new services

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Daidalos – Key Concepts

- Key innovation and guiding concepts:
  - MARQS (Integrating Mobility Management, AAA, Resource Management, QoS and Security)
  - VID (Virtual Identities – personalisation at all levels)
  - USP (Ubiquitous and Seamless Pervasiveness – includes context awareness),
  - SIB (Seamless Integration of Broadcast – both technology and service levels)
  - Federation (in terms of multiple market players, "*comperation*": competitors in cooperation")

- Underlying Assumption: Use Internet Protocol

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What todo ?

- Broadcast **Networks** integration
  - **Interface abstraction layer** tries to hide physical medium
  - **Mobility, QoS support, security** are provided for all networks
  - **Content adaptation** accounts for link layer variations
  - **Unidirectional Link Routing** provides virtual return channel for unidirectional media
  - **Make broadcast networks look like any other network**
- Broadcast **Services**
  - All **services** are based on IPv6
  - All networks support IP (Multicast) forwarding
  - Methods for charging and accounting are under evaluation, as well as security / privacy issues. DRM out of scope.
  - **Make broadcast services look like any other service**

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