

Project Achievements



MOBILE TV SERVICES WHATEVER ACCESS NETWORK

TV services are delivered via a number of different access networks. For Mobile TV alone, optimization of the network infrastructure costs for different reception conditions over 100% of a territory require to take advantage of different access network technologies.

The aim of the project was to develop advanced technologies allowing a convenient user experience for the end user whatever the access network technology is.

Main focus

The main focus was on Mobile TV and Radio services, i.e. services available on a handheld device, whatever the access network (i.e. including home reception of ADSL TV via a home Wifi link or public access via Wifi or Wimax).

This includes the following functions: service discovery through ESG (Electronic Service Guide), service subscription, access control to services (service protection and rights management), interactive TV, service access in "roaming" situation, mo-

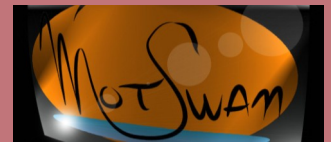
bile TV services including personal and context aware data services.

Approach

The Motswan preliminary objective was to use DVB-H because Mobile TV services were becoming popular, DVB-H networks were being opened and terminals were published but not yet available. Streaming services were also popular but problematic to operators because of limited bandwidth. At the beginning of the project, DVB-H was the future technology for Mobile TV, streaming services would only be used to fill in gaps in the DVB-H coverage and additional services were to be implemented to complement the broadcast TV service (e.g. betting, VOD/PushVOD).

However, the operation of the DVB-H network has been terminated in 2010 due to low popularity (no terminals available), and Nokia announced to stop development of Symbian (the only available terminal was Nokia N8).

This resulted in different resolutions in the project. The selected demonstrations with



MOTSWAN

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Partners:

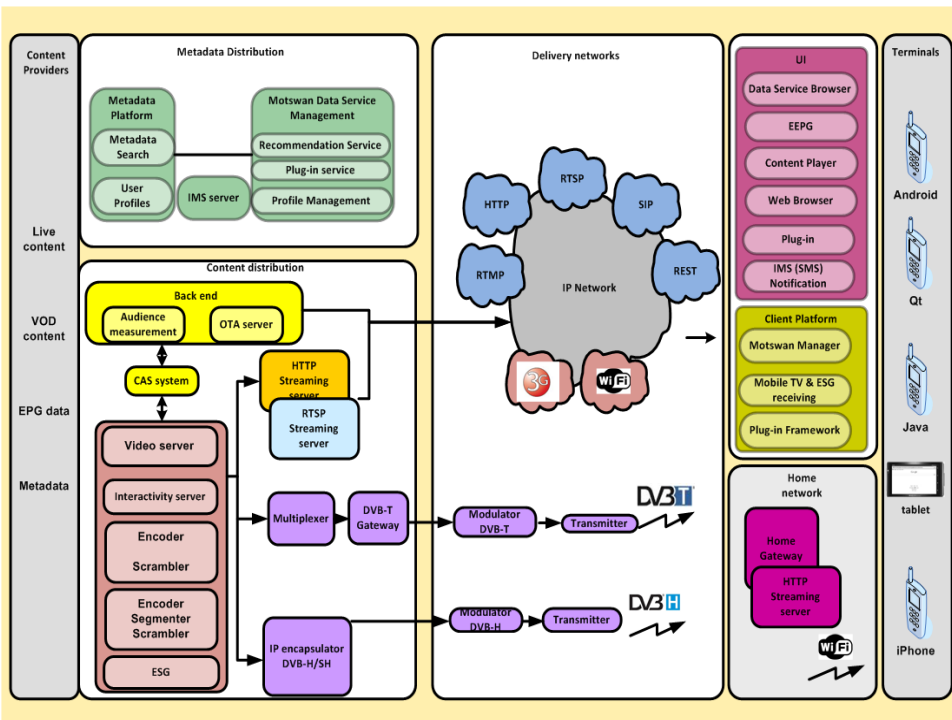
- BCE, Luxembourg
- Dibcom, France
- Digita Oy, Finland
- Expway, France
- Gemalto SA, France
- Neusoft, Finland
- Sanoma Entertainment, Finland
- Sofia Digital Ltd., Finland
- Thomson Video Networks, France
- Technicolor, France
- University of Turku, Finland
- VTT (Technical Research Center of Finland), Finland

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Project Website

www.celticplus.eu/projects/celtic-projects/call6/MOTSWAN/motswan-default.asp



DVB-H were kept, as the same mechanisms apply also for DVB-T and the future DVB-T2: mobile broadcast, hybrid concept of combining broadcast and unicast technologies (TISPAN IPTV standardisation).

New platforms have been taken (Android, Windows Mobile) to test new kinds of Mobile TV Services in a broader sense (without broadcast support). More effort has been put to the concept of context aware auxiliary services—a concept covering the whole chain from service deployment and management to personalization and consumption has been covered.

Achieved results

Two main demonstrators have been built to show both functionalities:

Enhanced Services

The demonstration combines auxiliary services to Live TV: provisioning to multiple mobile platforms, metadata management, context (location, preferences) sensitivity and personalization.

Service Continuity

The demonstration can show the TV continuity through different accesses: DVB-H, DVB-T, Web TV, Home Box TV.

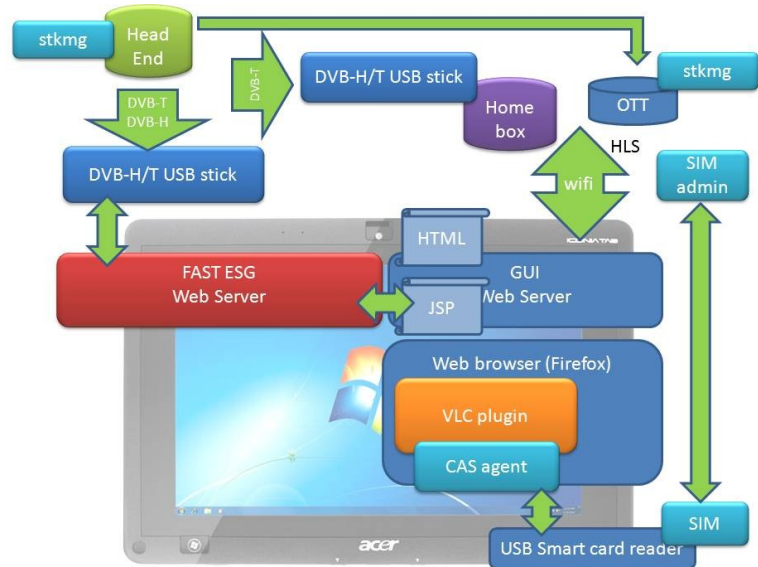
The demo includes continuity of

service protection and audience measurement.

TV services are delivered simultaneously through different DVB broadcast signals and HTTP

Impact

Several new products have been developed based on the project results: BCE offers a fast and low-



streaming from an Over The Top server and a home box, provided with an homogeneous set of ESG/EPG and synchronized meta data.

On client side, a same TV content session can switch between the different available accesses through a multi standard receiver and ESG.

A unified content protection scheme is provided for broadcast and streaming, together with an audience measurement solution.

cost EPG generator, DiBcom proposed a Home Box in partnership with Technicolor and Gemalto proposed its STKM generator.

Other products deployed by the partners took benefits from the project: BCE used project results in its Mobile broadcast platform, the developments done in the project were used in the Mobile broadcast receiver platform by DiBcom, and in the VS7000 real time video transcoder for WebTV / OTT by Thomson Video Networks. Expway introduced the Molswan ESG in its FASTESG ATSC-MH edition – client server. Gemalto improved its audience measurement offer thanks to the project.

And in Finland, Neusoft IMS client was improved, VTT developed an open prototype concerning Metadata Management, UTU developed a DVB-H transmitter and an IMS subsystem.

Many contributions to standardizations committees were brought: 3GPP, ATSC-MH, OIPF IPTV, DVB-T2.

About Celtic

Celtic is a European research and development programme, designed to strengthen Europe's competitiveness in telecommunications through short and medium term collaborative R&D projects. Celtic is currently the only European R&D programme fully dedicated to end-to-end telecommunication solutions.

Timeframe: 8 years, from 2004 to 2011

Clusterbudget: in the range of 1 billion euro, shared between governments and private participants

Participants: small, medium and large companies from telecommunications industry, universities, research institutes, and local authorities from all 35 Eureka countries.

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