Project information

CELTIC
Telecommunication Solutions
www.celtic-initiative.org

MObile Video and InteractivE Services

The MOVIES project, will provide new interactive mobile services by combining two communication technologies: mobile cellular systems and digital broadcast. The project will focus on the co-operation of DVB-H and wireless networks (UMTS/ GPRS, WiMax). It will enable to develop and deliver securely complementary services enhancing those already under development or already delivered on existing broadcast and cellular networks. This project will also enable to identify and develop new cooperative and interactive applications enhancing the classical model of "passive" television.

Main focus

Mobile video broadcast (Digital Video Broadcasting Handheld - DVB-H) is more than a simple extension of broadcasting television to mobile terminals.

Terrestrial television broadcasting networks will evolve by adapting their capabilities to the mobile environment, with the aim of achieving indoor coverage. In the meantime, mobile service providers are starting to deliver streaming video on 2G/3G (2nd Generation/3rd Generation) networks with the objective of migrating towards more efficient broadcasting capabilities.

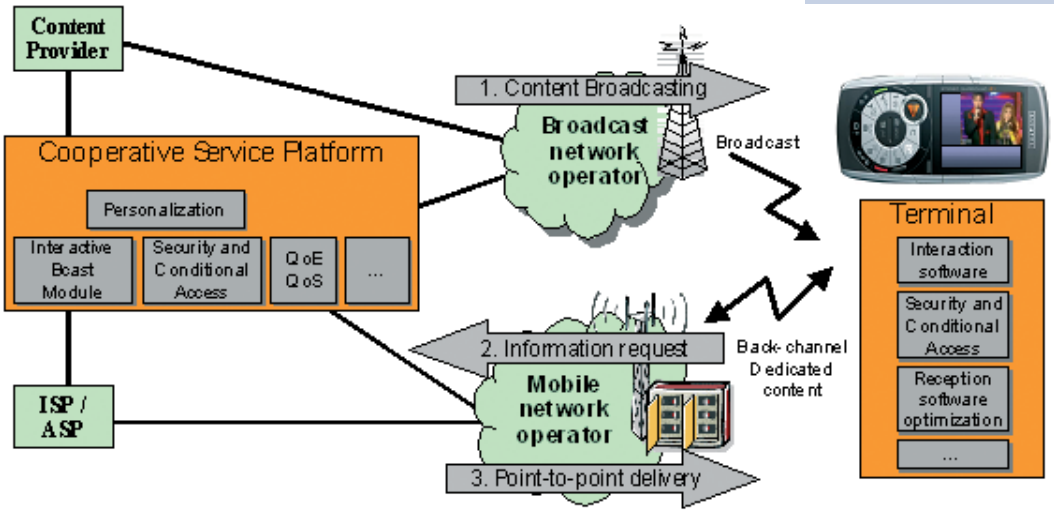
A cooperation between these technologies is seen as the optimal model to successfully introduce mobile broadcast services by delivering content efficiently, together with interactivity and personalization and will enable the offer of new services like:

- Interactive TV (e.g. TV shows with voting, betting, interactive news)
- Personalized information (e.g. personalized advertising)
- On demand services (e.g. pay per view, downloading of extra-content)
- Rich-Media protection (DRM and Conditional Access).

The use cases of mobile interactive services will cover various domains such as the public information, education, entertainment, business and location-based broadcasting services.

The project will also contribute to international standardization bodies (OMA, DVB forum,…).

The figure below provides a high-level view of the Movies project.



MOVIES

Project ID: CP3-009
Start Date: 1 September 2006
Completion date: 31 August 2008

Partners

Alcatel CIT, France
BCE, Luxembourg
CRP Henri Tudor, Luxembourg
Deutsche Welle, Germany
Fraunhofer Institute FOKUS, Germany
Gemalto, France
Grass Valley (a Thomson Brand), France
Nagra, France
SIDSA ES, Spain
Telefónica I+D, Spain
Thomson R&D, France
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Project web site

www.celtic-initiative.org/projects/movies

Approach

The consortium companies provide complementary expertise and experience to meet the objectives of the project. The consortium consists of a European-based network equipment manufacturer, broadcasters, telecom operators, industrials recognized for their work in this field, a public research institute, a leading organization of institutes for applied research and SME. In total there are 12 project participants from four different countries.

The knowledge and skills provided by the partners of the MOVIES consortium are fully complementary. This vertical integration will offer several advantages:

- Improve value chain coordination,
- Provide technical innovation increasing the entry barriers to potential non European competitors,
- Provide more opportunities to differentiate the proposed services,
- Facilitate investment in highly specialized assets in which the different players may be more reluctant to invest without such cooperation,
- Lead to the increase European core competencies in this high-potential domain.

The standard-based approach pushed by the MOVIES project will finally favor the emergence of new service providers by facilitating service deployment.

Main results

Four major results are expected for the project:

The first major result of the project will be an analysis on the value chain aimed at developing competitive business models, inputs for key regulation aspects, a definition of winning use cases and scenarios for interactive services suitable to be implemented in mobile cellular systems and within the reference architecture of the project.

The second major result will consist of an integrated demonstration platform developed by the different partners allowing the validation of the reference architecture, key interactive services, content adaptation and personalization flows, DRM/CA systems suitable for protecting all stakeholder businesses and allowing extended roaming capabilities. An innovative terminal with ergonomic user interfaces will be prototyped.

The third major result will tackle the security and DRM/CA interoperability standpoint: the project will provide two different but inter-operable Mobile CA/DRM systems, providing operators with great flexibility in tailoring their security architecture versus Content Provider requirements.

The fourth major result will be an active contribution to European advancement in standardization (OMA, DVB forum.) for mobile video and interactive services solutions.

Impact

Mobile TV is expected to be one of the next killer applications in mobile services.

In the broadcast segment, it is expected that 15-20 % of mobile subscribers will take mobile TV (over 4 years time). Ramp-up of Pay-TV based on DVB-H is expected to take place from 2007-2008. According to Nokia and Motorola, the number of DVB-H enabled terminals could be in the range of 250 million units in the coming years

In the unicast segment, 30-40% of the phones shipped will need a DRM client. The market will move rapidly towards more advanced DRM either OMA DRM2.0 or enhanced versions. 10 to 20% of MNOs could go for a SIM based DRM suitable for providing interactivity channels.

The total mobile Conditional Access (CA) market for mobile PayTV (Client + System) could reach 250 million dollars by 2010, while the OMA DRM 2.0 market could be in the range of $130-150 millions by the same date (sources: Idate+ Axalto).

For the technical part, technological innovation is expected on the following aspects:

- Roaming management
- Security and Conditional Access
- Cooperative Platform and Interactivity
- Content adaptation
- Service personalization
- User-centric application
- Quality of service management

About CELTIC

Celtic is a European research and development programme, established as Eureka cluster, 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. Launched in November 2003, Celtic (Cooperation for a sustained European Leadership in Telecommunications) was founded and has been supported by major European telecommunication players, both vendors and operators. Celtic fills the gap between public R&D programmes not specifically focused on telecoms and short-term R&D efforts by the telecoms industry

Timeframe: 8 years, from 2004 to 2011

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

Participants: companies from the telecommunications industry (small, medium and large), universities, research institutes, and local authorities from all 35 Eureka countries may participate in Celtic projects.

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