

Project Achievements



SIM based OMA DRM v2.0 Services over IMS

The new multimedia mobile technologies and faster communication protocols bring the user a new world of possibilities for enjoying content like video, pictures, music or games with just downloading it to the terminal. Nevertheless, the piracy is, nowadays, the biggest menace for the business model of this entertainment content providing.

Main focus

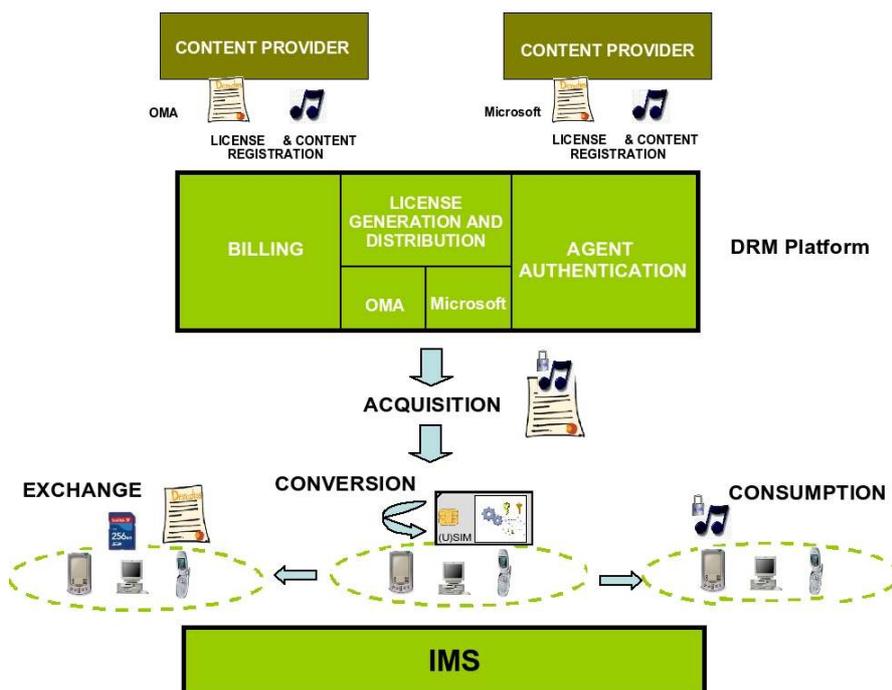
With the expansion of wireless transmission technologies like Bluetooth or WIFI, and the increasing storage capacity of the terminals, the traditional business models for content providing become quickly outdated since anyone can download media, games or programs and then forward the content without any limitations to any other terminal, PDA or desktop computer, so the benefits for the content provider result more and more reduced.

The DRM technologies allow the multimedia producers and other content providers to protect themselves against the indiscriminate copy of their data, encoding the files in a way that result unreadable for any user unless he has been provided with the proper key that unlocks the content.

In addition, DRM provide mechanisms that can help to open innovative and more attractive relationships between the customer and the providers, in order to improve the user experience of the service and, on the other hand, keep the value chain of the content providing.

Approach

The platform that was developed in the first CELTIC project about DRM, "DRMSolution", that introduced the basic characteristics of the OMA DRM standard, has been extended in this new project with more complex functionalities.



DRMSolution_NG

Project ID: CP4-008

Start Date: 1 July 2007

Closure date: 31 March 2010

Partners:

Bantry Technologies, Ireland

Ektacom, France

EMI Music, France

i2CAT, Spain

Resonate MP4, France

Telefónica I+D, Spain

Telefónica Moviles, Spain

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www.celtic-initiative.org/projects/DRMSolutionNG

Looking into the technology, the working of DRM is based on an access key provided to the user. This key can be configured depending on the user-provider commercial relationship, so among other possibilities, it is possible to give that key a determined period of time within it will be activated, and after that it will become useless and the user must renew it to keep the access to the file content.

The solution has great advantages above existing alternatives because it is based on the SIM card, which allows to link the contents and the licenses to the user identity, with clear advantages for the user as for portability of rights objects and comfort in the use, and for solution safety, because it has a protected environment to store and process critical information.

Achieved results

The expected project results include:

- ◆ Development of a DRM solution based on the SIM card for mobile phones, oriented to convergent networks through IMS services and supporting distinct DRM technologies
- ◆ Services will be developed in a trust environment for all the members of the value chain including the final user, with the latest DRM related specifications using strong cryptographic techniques

- ◆ Implementation of advanced functionalities of OMA DRM v2.0 and Windows Media DRM technologies
- ◆ Interoperability and portability between different devices like PDA's, mobile, PC ... using concepts of standards such as Coral or Marlin
- ◆ Services mainly include innovative functionalities of OMA specifications such as audio and video streaming protection, interoperability with other DRM technologies, secure content sharing and support for new business models (legal P2P services, rewarded super distribution, etc.)
- ◆ Audio and Video Streaming Protection: The platform can protect not only the media contained on transmitted files, but the streamed media too

The developed solution is carrying out over IMS architecture, making easier the convergence of services in the fixed / mobile environments.

Therefore, the whole solution implements these results in several layers:

- ◆ A multi DRM platform that offers all the functionalities including streaming distribution infrastructure.
- ◆ The service layer itself.
- ◆ An IMS core.

- ◆ Client side components, including device and SIM card parts of the agent.

Impact

The content distribution (games, music, videos) in a convergent environment is one of the keys for the next generation of mobile devices. Online contents revenues are expected to have a strong growth in the next years, with a significant overall contribution of the online video. The best predictions expect that the mobile content delivering will rise from a 10% to a 40% of the whole world content market.

However, without proper protection policies, these revenues will be dramatically reduced, due to the indiscriminate copy and distribution that has place nowadays without any kind of restriction.

The results obtained from DRMSolution_NG will help on one hand to keep the value chain of the content distribution, imposing restrictions to the illegal copy, sharing or sending of copyrighted data, and, on the other hand, allowing the legal users to easily share their purchased content between all their devices (portable or not) and creating for them new and attractive ways to enjoy media, games and another interesting entertainment content.

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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