

# Project Information



## SIM based OMA DRM v2.0 Services over IMS

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

### 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the increasing storage capacity of the terminals, the traditional business models for providing content become quickly outdated since anyone can download media, games or programs and then forward the content without any limitations to any other terminal, PDA or desktop computer, so the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 are

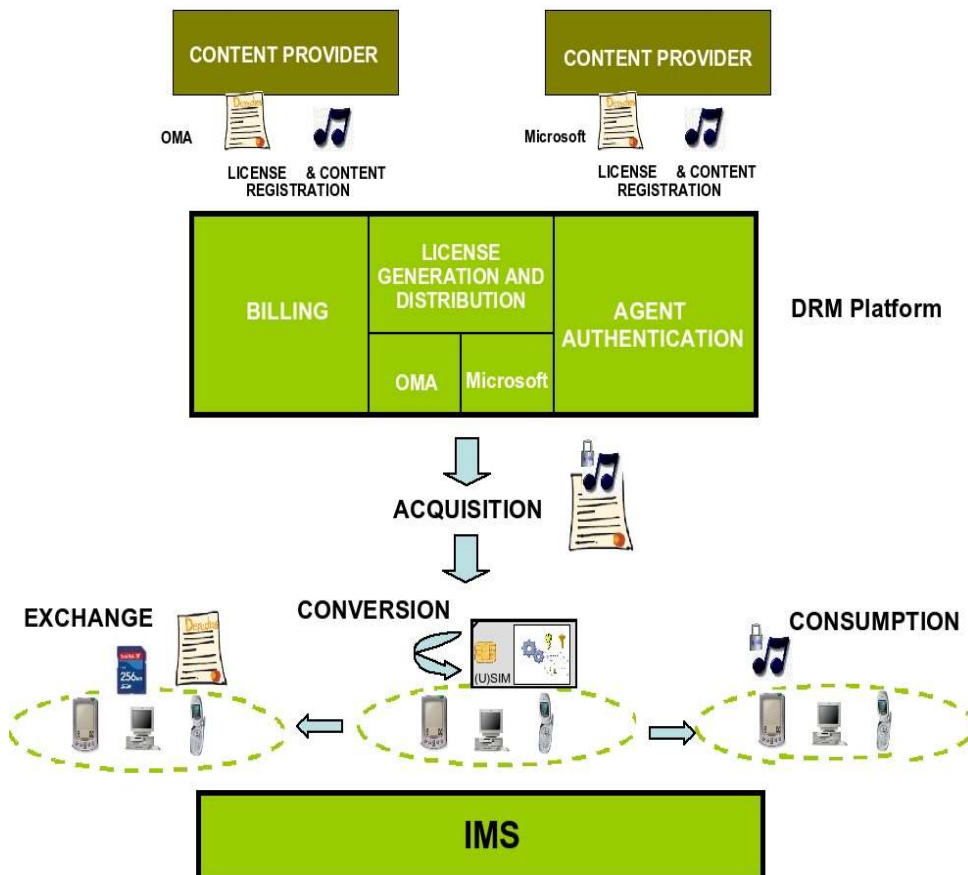
more and more reduced.

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 provides 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 DRMSolution\_NG project wants to go



## DRMSolution NG

Project ID: CP4-008

Start Date: 1 July 2007

Closure date: 31 March 2010

### Partners:

- Bantry Technologies, Ireland
- EMI Music France, France
- Ektacom, France
- I2CAT, Spain
- Resonate MP4, France
- Sagem Orga, France
- Telefónica I+D, Spain
- Telefónica Moviles, Spain
- Vitec Multimedia, France

### Co-ordinator:

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### Project Website

[www.celtic-initiative.org/projects/DRMSolutionNG](http://www.celtic-initiative.org/projects/DRMSolutionNG)

deeper into the advanced features and possibilities of the DRM protection system. The platform that was developed with the first CELTIC DRMSolution project, which introduced the basic characteristics of the OMA DRM standard, will be extended with more complex functionalities, like advertisement-based protected content or a content-sharing tracing system that could be used for the measurement of the most active users of the platform, and, in consequence, could offer them some kind of promotions.

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 limit this key to a predetermined period of time in which it will be activated; after this period it will become useless, and the user must renew it to keep the access to the file content. The usage of these advanced features allows the provider to enable characteristics like periodical subscriptions or consumption-limited content.

The solution will be carried out over an IMS architecture, facilitating the convergence of services in fixed-mobile environments.

Therefore, the whole solution will implement these results in several layers:

- ◆ A multi DRM platform that will offer all the functionalities includ-

ing streaming distribution infrastructure.

- ◆ The service layer itself.
- ◆ An IMS core
- ◆ Client-side components, including device and SIM card parts of the agent.

The solution will have great advantages above existing alternatives, because it will be based on the SIM card, which will allow 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 will have a protected environment to store and process critical information.

## Main results

The expected project results include:

- ◆ Developing 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.

- ◆ Full interoperability and portability between different devices like PDAs, mobile phones, PCs, and others.

- ◆ Services will 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 (cross selling, subscription, push delivery, legal P2P services, rewarded superdistribution, etc.).

- ◆ Audio and video streaming protection: The platform will protect not only the media contained on transmitted files, but the streamed media too.

## Impact

The content distribution (games, music, videos) in a convergence environment will be 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 taken 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 copying, sharing or sending of copyright-protected data. On the other hand, the results will allow the legal users to easily share their purchased content between all their devices (portable or not) and create 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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