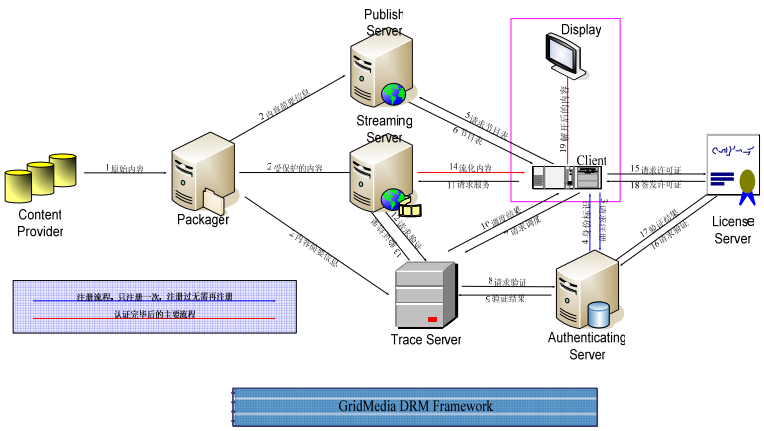
数字权利管理关键技术研究
(Digital Rights Management)

Introduction

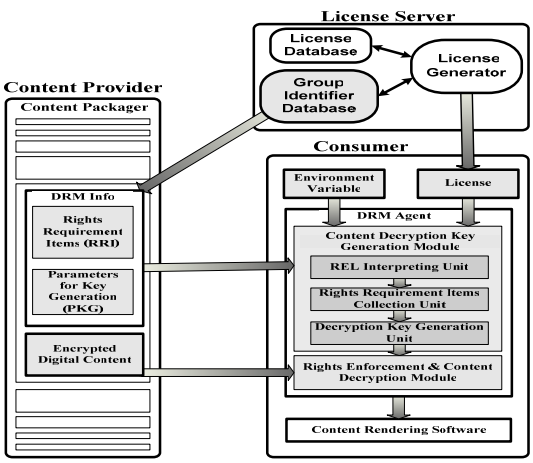
The subject focuses on various security technologies and solutions used for Digital Rights Management including digital watermarking, rights expression language, trust management, license management etc.

With the explosive development of network community and media culture, digital content offers an increasing number of opportunities for people. However, the ability for anyone to make perfect copies and the ease by which those copies can be distributed also facilitates misuse, illegal copying and distribution, plagiarism, and misappropriation. There emerges great desire for Digital Rights Management (DRM) systems which can protect the economic value of digital contents and owners' rights.



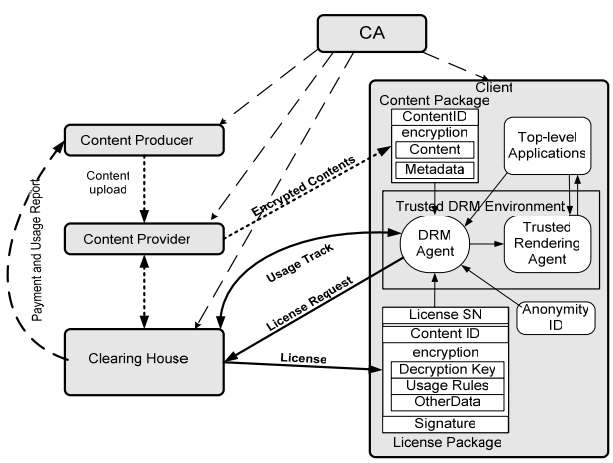
A Large-scale Live Broadcasting System Supporting DRM

We propose and realize a large-scale live broadcasting system supporting DRM，which streams and distributes real-time contents by media streaming technology, provides scalability to support large scale consumers by application layer multicast technology, let only authorized users access the contents according to the specified usage rules by DRM technology.



A Scalable DRM Framework for Large Scale Content Distribution

We propose an efficient Right-granting Model with Hierarchical Group Rights (RMHGR) which can grant rights on some group of contents to a group of consumers. Furthermore, we propose a corresponding DRM framework which differs from previous DRM systems in terms of packaging mechanism, license structure, and content decryption key generation method.



License Management Scheme with Anonymous Trust for DRM

We propose a license management scheme named LMSAT (License Management Scheme with Anonymous Trust) which provides a powerful and flexible license acquisition and usage tracking scheme to allow the user access the contents anytime, anywhere, and on any compliant devices anonymously.