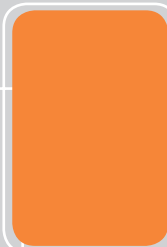


SK Telecom Mobile DRM solution over
SanDisk® TrustedFlash™ security platform
Ideal solution for operator and broadcaster provisioning

DiProte DRM⁺

The standard compliant DRM solution,
offering user convenience and
additional revenue for
service providers



DiProte DRM+ Key Features

Provides interconnection with conditional access for secure contents recording and distribution

DiProte DRM+ is an integrated solution with a conditional access system. The access to the service is protected by conditional access system, and the secure recording of the contents with right and playback at the devices is enabled with DRM technology. By incorporating conditional access with DRM technology, secure recording and distribution of the contents are guaranteed. DiProte DRM+ is a unique solution providing interconnection with conditional access for digital contents like mobile TV.

Supports external memory cards

Memory cards are an essential tool nowadays for high capacity storage of digital contents like photos, music, games and movies. They are widely available and people are accustomed to using them as a storage tool. It is an essential part of DiProte DRM+ as well. Since the contents are recorded with right, they can be easily played on the recording devices and other devices at any time.

Personal Video Recording (PVR) functionality

People are used to doing instant recording while they're watching TV as well as doing scheduled recording. Naturally they're expecting mobile TV to support the same recording capabilities. To satisfy such user demands, DiProte DRM+ offers PVR functionality.

Industry standards compliance

DiProte DRM+ is fully compliant with OMA DRM v. 2.0 and it is compatible with other OMA DRM standard compliant solutions. Operators can use DiProte DRM+ for server solutions and client solutions on a turnkey basis. Even though the operator already has OMA DRM compliant server solution, they can still benefit from DiProte DRM+ client solution. Upgradable memory cards to DiProte DRM+ clients are already being distributed in the market. Therefore, service providers can launch the service immediately. Time to market and cost are minimized.



DiProte **DRM+**

SK Telecom Mobile DRM solution for operators and broadcasters

Overview of DiProte DRM+

DiProte DRM+ is an Open Mobile Alliance (OMA) DRM (Digital Right Management) v. 2.0 compliant solution for mobile operators and broadcasters who need to manage and protect the copyrights of digital content. It enables contents protection and distribution by identifying the rights of the contents and protecting them against unauthorized or illegal use. It provides several major functions such as (i) recording streamed and broadcasting contents with digital rights and playback on multiple devices, (ii) re-distribution of contents with digital rights. Since the rights are stored along with the content on the card, the content can be shared on other devices owned by a user without jeopardizing security. (iii) pre-loading of promotional contents, and (iv) downloading contents with digital rights.

The SanDisk TrustedFlash™ security platform combined with SK Telecom DiProte DRM+ delivers a solution that can be used for the secure storage of any content, and not just the recording of mobile TV. This solution allows the end user to receive and enjoy premium digital content anywhere, anytime on any TrustedFlash™ compliant device



The benefits to the end user

Long recording time

Currently available external memory cards are large enough to support film-length files. As the capacity of memory cards increases dramatically every year, users can purchase the same capacity for less as time goes by. This will increase the usage of memory cards.

Convenient contents usage

Since the contents are stored on a small memory card, users can easily carry several cards and play them as they wish on any device which has memory card slot. If operators allow, memory card can be used just like a CD.

Ability to copy and re-distribute contents

End users can easily copy content and share it with others as a gift by purchasing required additional rights for their gift recipient.

Enjoy benefits using memory card for contents storage

End users can enjoy the following benefits by using memory cards as a storage and playback tool.

- Affordable price
- Portability of contents
- Multi-purpose usage
- Easy to carry (small size)
- Wide availability at on- and offline shops
- Larger storage capability

Benefits to Key Players

Benefits to service providers

Additional revenue using DRM functionality

DiProte DRM+ allows the service provider to increase revenue by providing flexible business models. Service providers can create various business models depending on the policy for their service. When contents are stored, they can pre-define duration of availability and the number of playbacks, and other details of contents usage. By customizing their policy, they can create their own unique business models. Additionally, they can make a dedicated channel for premium contents, as it allows for fee-per-channel charges.

Rapid service launch

Service provider can deploy the service easily to incorporate DRM client modules in the users' devices. DiProte DRM+ is already incorporated into memory card, and service provider can offer the service to end users when they complete the roll-out of DRM servers in their network environment without having to wait for the user devices to be deployed in the market. Users can simply purchase memory cards available market-wide, and use them as a DRM card. For service providers this means quicker time to market, and for end users it means low cost for DRM service.

Flexible service planning

Service providers can develop various service plans using DiProte DRM+. DiProte DRM+ allows operators to decide their own policies. Various options for example, device binding vs. network binding, frequency of playbacks and duration of playbacks, can be defined and applied by the service provider.

Benefits to content providers

Protect the contents from unauthorized usage

Protecting the contents from the unauthorized use is of utmost importance to contents providers, as this protects their revenue. DiProte DRM+ allows only authorized people to access the contents for recording and playback.

Easy access to content

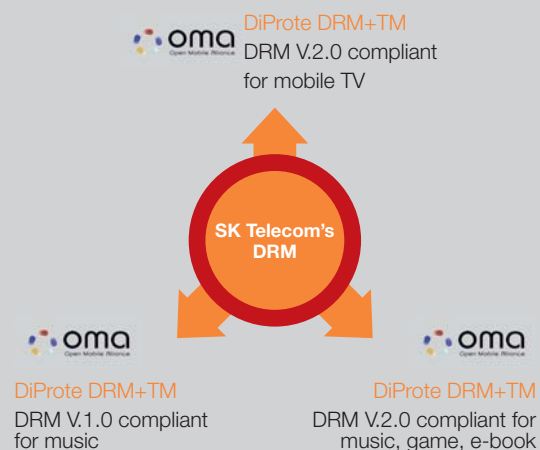
As contents can be stored on a small memory card, people can easily carry the content and use on any device which has a memory card slot. The opportunity for public content exposure is very high. This will naturally increase the interest and motivation for other people to purchase the contents.

Additional revenue through content re-distribution

DiProte DRM+ offers the ability to copy the contents and re-distribute it to others. Though the copy of the content is allowed, it's only usable if the rights are purchased. Content providers can generate revenue by selling the rights even to non-subscribers of the service.

SK Telecom's DRM Portfolio

SK Telecom as a largest mobile service provider in Korea is committed to upholding the industry standard DRM based on OMA regulation so that we can offer optimal global standard compatible service to our 21 million subscribers. SK Telecom's DRM product supports various versions of OMA DRM standards from OMA DRM v. 1.0 to v. 2.0. DiProte DRM+ is based on the newly released OMA standard DRM v. 2.0.



Market Demand

The growing need for content storage and distribution

Nowadays more and more people enjoy digital contents on mobile devices like mobile phones, Portable Multimedia Players (PMP), PCs and MP3 players. As the demand for mobile contents like mobile TV, music, games is growing due to the rapid development of the Information Technology industry, the importance of content protection and secure distribution is increasing rapidly to protect the business model of service providers and contents owners.

The increasing need for higher storage capacity

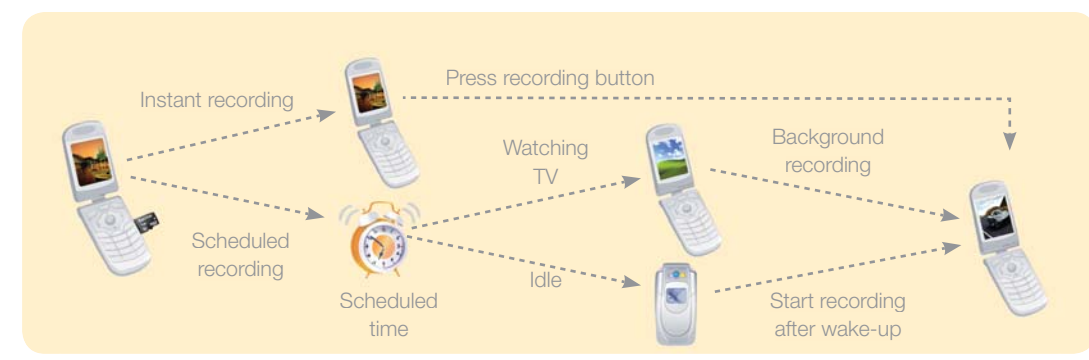
At the same time, due to the increasing file size of digital contents, people need larger memory capacity for content storage. However, the internal memory capacity of user devices is limited. Naturally, people seek additional devices to store the digital content for personal use. This has increased the usage of memory cards, and now flash memory cards are widely available. Nevertheless, there are still contents limitations due to copyright issues. Unless the rights of the digital contents are protected, the service provider cannot offer recording or downloading services due to their legal obligation to the contents owner.

Protecting the business models of service and contents providers

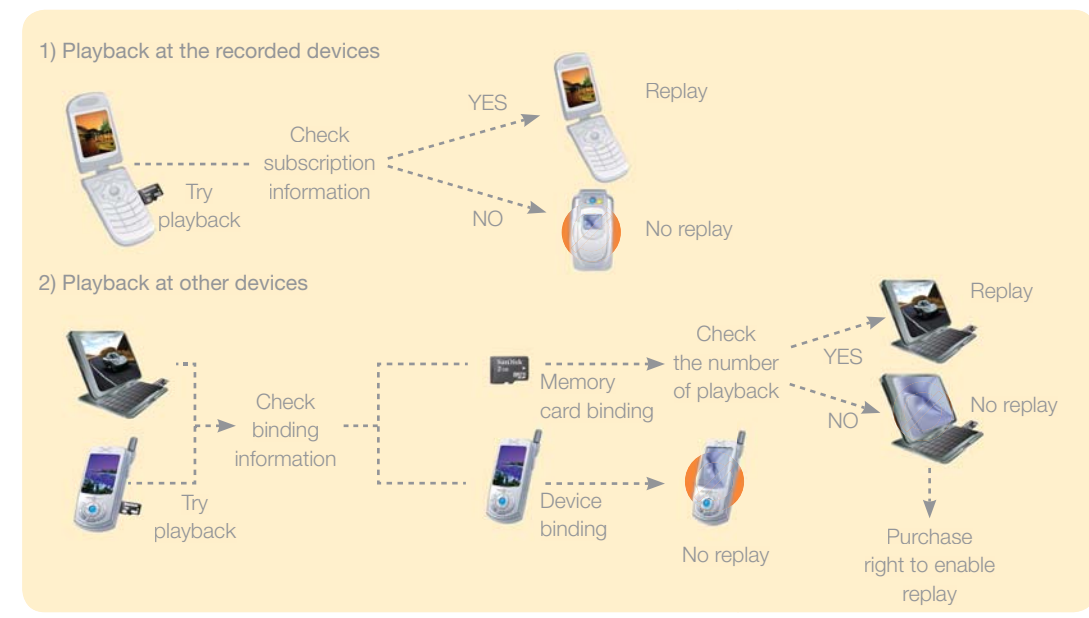
Such needs for contents protection and secure delivery of contents are widely recognized as a necessary obligation for service providers and contents providers to boost the market. It will result in increased depth and breadth of digital contents. At the same time, mobile operators and broadcasters want to develop various business models for generating greater revenue from their service offering. This is all possible with SK Telecom's DiProte DRM+ solution, which offers service protection using secure conditional access solution and contents protection using DRM technology.

Service Scenario

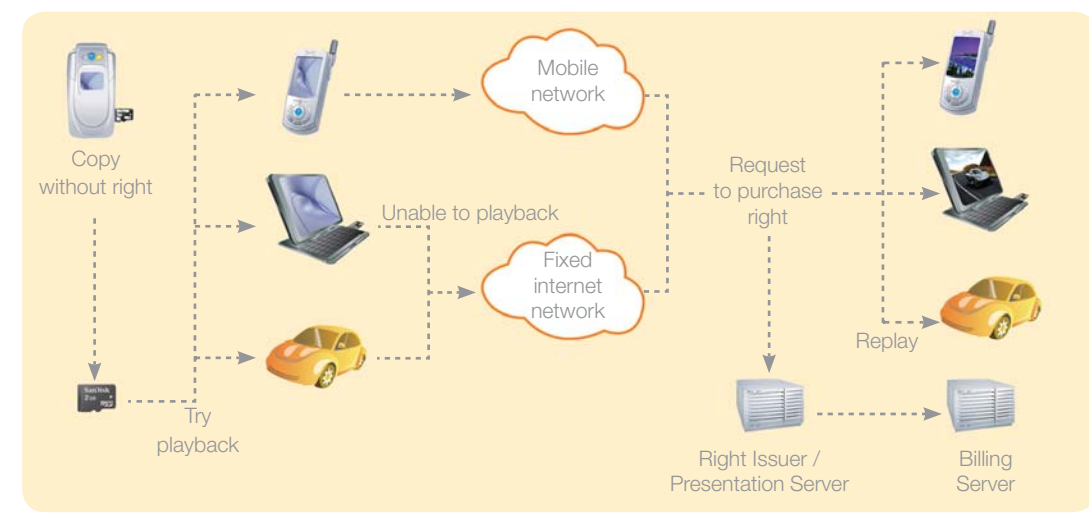
Recording



Playback



Super-distribution



SK Telecom DRM Reference

SK Telecom's DRM system is already proven for various contents services like video, music, movies, e-books, games etc. on the commercial market.

SK Telecom's DRM system is being used commercially for the following services;



SK Telecom's premium brand, June furnishes a true concept of streaming video multimedia service for contents like movies, music video, animation, games, sports and phone features (live bell, live screen, and coloring), as well as TV programs.



MelOn is the ubiquitous music service that lets enjoy music anytime, anywhere and with any device such as PCs, mobile phones, and MP3 Players.



GxG is the 3D premium game service in which users can download games to game phones through an Internet PC.



Cizle is the cinema portal service in which users can reserve tickets and download and enjoy movie contents on your mobile device.

SK Telecom Overview

SK Telecom (www.sktelecom.com) is a global leader in information communications. With a strong foothold in Korea, SK Telecom provides a mobile network and a broad range of innovative mobile services and applications including mobile TV, music, m-commerce, mobile game, mobile instant messaging and mobile blogging to over 21 million subscribers. SK Telecom also successfully advanced into the global markets e.g. the USA, China, Vietnam and Mongolia as a service provider. SK Telecom's cutting-edge wireless Internet technologies platforms and contents are being exported to advanced countries. This has laid a solid foundation for SK Telecom's advances towards becoming a major player in the global market.

SanDisk Overview

Advanced Solution for Content and Service Delivery

SanDisk® Corporation (www.sandisk.com/corporate), the inventor and world's largest supplier of flash storage cards, is a global leader in flash memory - from research, manufacturing and product design to consumer branding and retail distribution. SanDisk offers a wide range of mobile smart storage solutions aimed at delivering content and services securely. Our offering includes the MegaSIM™ high-capacity SIM, the Virtual MegaSIM™ that extends the functionality of the standard SIM card, and flash memory cards. These products, can use the SanDisk® TrustedFlash™ security platform running the SK Telecom Diprote DRM+ for a higher level of security and portability for mobile TV.



11, Euljiro 2-ga, Jung-gu Seoul 110-999, Korea
Tel. +82-2-6100-2114 www.sktelecom.com

