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Edition 1.0 2014-02

TECHNICAL REPORT

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Multimedia home server systems – Relationship between the content usage contract and the digital rights permission code

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MULTIMEDIA HOME SERVER SYSTEMS – RELATIONSHIP BETWEEN THE CONTENT USAGE CONTRACT AND THE DIGITAL RIGHTS PERMISSION CODE

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The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
100/2133/DTR	100/2173/RVC

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INTRODUCTION

Background

IEC 62227, which was published as an International Standard in 2008, provides technical specifications for encoding permission information by which rights holders grant consumers permission to use digital content in the field of digital content distribution. Since IEC 62227's publication, remarkable technological progress in this field has paved the way for new forms of content usage, such as content consumption using cloud technology and content sharing on social networks.

Given the ongoing technical evolution, TC 100, technical area 8, has been working on the second edition of IEC 62227 by taking into account the new modes of usage in this new edition.

For this task, in addition to the new modes of usage, separate reviews were carried out as to the relationship between the digital rights permission code (DRPC, the underlying technical specifications that were defined in IEC 62227) and the content usage contract, in order to identify items that should be reflected in the second edition. The content usage contract, which is made between the content rights holder(s) and the content users, serves as the basis for the contents of DRPC. It was concluded that the findings should be summarized as a Technical Report, i.e. this report.

At the same time, because few guiding material on IEC 62227 is available for the content rights holders who, in practice, grant permission by means of a Digital Rights Permission Code, this Technical Report has been prepared for these rights holders. This report starts therefore by referring to the content usage contract, with which they are familiar, followed by a discussion of its relationship with IEC 62227:2008.

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Readers who are engineers may find this Technical Report lengthy, because it contains an explanation of the content usage contract in addition to technical descriptions.

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Overview

IEC 62227, which defines the DRPC system, is structured in such a way that the information required by engineers who are familiar with how permission information is coded can easily access it.

However, the present DRPC does not cover the entire content usage contract that stands behind usage permission conditions, because it focuses on encoding the usage permission conditions as the minimum requirement for the management of content usage on devices. Accordingly, DRPC does not encompass some stipulatory items (e.g., disclaimers, content guarantee, descriptions about confidentiality and cancellation, matters for consultation, applicable laws, etc.) that will be dealt with not by the devices but by the content providers and/or content users themselves.

On the other hand, people working on the frontlines of the content distribution business are faced with daily challenges, including taking countermeasures against illegal distribution of digital content, apportioning royalties among rights holders, and the like. It is fair to say that the above-mentioned content usage contract alone is neither sufficient to eradicate unauthorized distribution of content nor helpful in simplifying apportioning processes.

This Technical Report discusses content usage contracts that are actually used and shows how DRPC can be applied to them. In doing so, it clarifies the relationship between the content usage contract and DRPC and as such it can serve as a guide to solving the above-mentioned challenges.

This Technical Report also presents a guide to possible applications of DRPC to the management of content usage permission in real business fields, aiming at people engaged in the management of permission, including those working in the information processing sector

and in the legal arena, as well as engineers engaged in the generation and management of DRPC.

At the same time, this Technical Report seeks to improve convenience for people involved in any way in content usage permission by making DRPC-assisted management of usage permission more real life oriented, based on discussion of conditions that IEC 62227 lacks.

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MULTIMEDIA HOME SERVER SYSTEMS – RELATIONSHIP BETWEEN THE CONTENT USAGE CONTRACT AND THE DIGITAL RIGHTS PERMISSION CODE

1 Scope

This Technical Report provides a guide to implementing DRPC. Specifically, it defines the relationship between the content usage contract, which serves as the basis for permission management, and DRPC. The protection of content and the application of watermark technology are beyond the scope of this report.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62227:2008, *Multimedia home server systems – Digital rights permission code*

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3 Terms and definitions

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3.1
allocation of royalties
act of royalty payments

3.2
child permission code
permission code issued for an individual piece of content belonging to a larger group

3.3
compliant device
device that possesses functions to control content access as specified in a compliant license

3.4
content identifier
identifier that uniquely identifies content

3.5
content usage contract
contract that specifies a type of usage, a way of usage and a term of usage which are concluded by content distributors

3.6
copy
usage type that permits the copying of content to a compliant medium under a reuse permission

Note 1 to entry: Permission conditions are further specified in the condition parameters.

3.7
coupon
fee-based permission that uses coupons, a form of alternative currency that can be exchanged for a given piece of content

Note 1 to entry: Coupons are distributed to users by the content sponsor in order to increase user contact with that sponsor.

3.8
data management
permission condition that describes conditions that pertain to saving the original content or re-issuing permission codes

3.9
data output condition
permission condition that describes conditions that pertain to exporting original content to non-compliant objects

3.10
disclaimer
refusal of the responsibility of a service provider in a specified case pertaining to a service agreement

3.11
domain
set of devices, users, storage media or other entities to which a common set of rules applies in the context of content management

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3.12
export
usage type that permits the exporting of content to a noncompliant medium under a reuse permission

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Note 1 to entry: Permission conditions are further specified in the condition parameters.

3.13
general usage condition
permission condition that describes conditions on a usage mode basis

3.14
home server
client device that serves as a gateway to a home domain

3.15
illegal distribution
content is illegally distributed over the Internet

3.16
issuer identifier
identifier that uniquely identifies a rights holder, a service provider and a home server

3.17
move
usage type that permits the moving of content to a compliant medium under a reuse permission

Note 1 to entry: Permission conditions are further specified in the condition parameters.

3.18
narrowly-defined permission code
code system that expresses various sets of permission information and permission conditions necessary for content transmission

3.19
parent permission code
permission code issued for a group of content

3.20
permission
act by a certain issuing entity that authorizes the use of content by a certain receiving entity under a certain set of permission classifications and usage conditions

Note 1 to entry: The issuing entity and/or the receiving entity may be not only human but may also be a device, storage medium, organization, domain, or another entity.

3.21
permission classification
permission type that expresses stipulations about what is being granted

3.22
permission code
code system that represents codes through a common system so that permissions from two parties with differing DRM implementations can interact with each other

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3.23
posting sites
website which enables people to upload and share their contents with others

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3.24
prohibited matters
description that defines matters which a service provider forbids a content user to do based on a service agreement

3.25
provider's rights
statement that refers to rights of a service provider which are granted by a service agreement

3.26
receiver identifier
identifier that uniquely identifies an end-user, a device and a set of end-users

3.27
royalties
dividend that is distributed from a permission receiver to a permission issuer

3.28
service agreement
contract that specifies various kinds of agreements about using services between a permission issuer and a permission receiver

3.29
service description
statement that defines a service content, for example a service name and a service period, etc., based on a service agreement

3.30
subscription
fee-based permission that charges per time period

3.31
user's rights
statement that refers to a right of a content user which is granted on a service agreement

4 Abbreviations

For the purposes of this Technical Report, the following abbreviations apply.

CD	Compact Disc
CH	Content Holder
CP	Content Provider
CPRM	Content Protection for Recordable Media
CSP	Content Service Provider
DCF	DRM Content Format
DRM	Digital Rights Management (System)
DRPC	Digital Rights Permission Code
DVD	Digital Versatile Disc
HD	High Definition
HDD	Hard Disk Drive
ID	Identifier
SAFIA	Security Architecture For Intelligent Attachment
WMT	Windows Media Technology

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5 Purpose and justification of this Technical Report

5.1 General

This Technical Report provides a guide to possible applications of DRPC to content usage permission in business fields, aiming at people engaged in the management of permission, including those working in the information processing sector and in the legal arena.

5.2 Purpose

This Technical Report aims to achieve the following.

- Analyze the relationship between a content usage contract and DRPC.
- Present a guide to generating DRPC based on a content usage contract that is managed by a permission management platform.

6 Services covered in the study

6.1 General

This Technical Report studied the terms of service of the following seven major digital content distribution services of Japan and the US as explicit examples of contracts regarding digital content distribution, the results of which are shown below.