

This is a preview - click here to buy the full publication



IEC TR 62865

Edition 1.0 2014-02

# TECHNICAL REPORT



---

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

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE



---

ICS 33.160.60

ISBN 978-2-8322-1392-6

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	10
2 Normative references .....	10
3 Terms and definitions .....	10
4 Abbreviations .....	13
5 Purpose and justification of this Technical Report.....	13
5.1 General.....	13
5.2 Purpose .....	13
6 Services covered in the study .....	13
6.1 General.....	13
6.2 iTUNES STORE™ .....	14
6.3 Amazon.com™ .....	14
6.4 AcTVila™ .....	14
6.5 TSUTAYA TV™ .....	14
6.6 mora win™ .....	14
6.7 MAGASTORE™ .....	14
6.8 Spotify™ .....	15
6.9 NETFLIX™ .....	15
7 Relationship between permission and the content usage contract.....	15
7.1 General.....	15
7.2 What is permission?.....	15
7.3 What is a content usage contract? .....	16
8 Value chain in the distribution of digital content .....	16
8.1 General.....	16
8.2 Rights holder .....	17
8.3 Content holder .....	17
8.4 Content provider .....	17
8.5 Service provider.....	17
8.6 User.....	17
9 Basic contract and individual contract for each link in the value chain in the distribution of digital content.....	17
9.1 General.....	17
9.1.1 Contracts.....	17
9.1.2 Basic contract.....	18
9.1.3 Individual contract .....	18
9.2 Basic contract between the content holder and the content provider (content usage contract) .....	18
9.3 Individual contract between content holder and content provider (catalog) .....	19
9.4 Basic contract between content or service provider and user (terms of use of service).....	19
9.5 Individual contract relating to the purchase or free-of-charge use of content by users .....	20
10 Examples of content usage contracts and DRPC in digital content distribution.....	20
10.1 General.....	20
10.2 iTUNES STORE.....	20
10.2.1 Basic contract.....	20

	10.2.2	Individual contract .....	21
10.3		Amazon.com .....	21
	10.3.1	Basic contract.....	21
	10.3.2	Individual contract .....	22
10.4		AcTVila .....	22
	10.4.1	Basic contract.....	22
	10.4.2	Individual contract .....	23
10.5		TSUTAYA TV .....	23
	10.5.1	Basic contract.....	23
	10.5.2	Individual contract .....	24
10.6		mora win .....	24
	10.6.1	Basic contract.....	24
	10.6.2	Individual contract .....	24
10.7		MAGASTORE .....	25
	10.7.1	Basic contract.....	25
	10.7.2	Individual contract .....	25
10.8		Spotify .....	25
	10.8.1	Basic contract.....	25
	10.8.2	Individual contract .....	26
10.9		NETFLIX.....	26
	10.9.1	Basic contract.....	26
	10.9.2	Individual contract .....	27
11		Applicability of DRPC to content usage contracts for digital content distribution .....	27
11.1		General.....	27
11.2		Status and challenges of countermeasures against illegal content distribution.....	27
	11.2.1	General .....	27
	11.2.2	Current countermeasure 1: Content check function on the website.....	28
	11.2.3	Current countermeasure 2: Validation of poster .....	29
	11.2.4	Current countermeasure 3: Use of alert system .....	29
11.3		Countermeasures against illegal content distribution based on the content usage contract.....	30
	11.3.1	General .....	30
	11.3.2	Case 1: Authorized use of content in accordance with the terms of the use agreement.....	30
	11.3.3	Case 2: Unauthorized use of content contrary to the terms of the use agreement.....	31
	11.3.4	Case 3: Use of unauthorized content downloaded illegally from other websites .....	31
11.4		DRPC-based countermeasures against illegal distribution of content .....	31
	11.4.1	General .....	31
	11.4.2	Case 1: Authorized use of content (embedded with DRPC) in accordance with the terms of the use agreement .....	31
	11.4.3	Case 2: Unauthorized use of content (embedded with DRPC) contrary to the terms of the use agreement.....	32
	11.4.4	Case 3: Use of unauthorized content (embedded with DRPC) downloaded illegally from another website.....	32
11.5		Direction for countermeasures against illegal distribution of content .....	32
12		Applicability of DRPC to the allocation of royalties earned from the distribution of digital content.....	33

12.1	General.....	33
12.2	Status and challenges concerning the allocation of royalties .....	33
12.3	Possible royalty allocation system based on DPCR.....	34
12.4	Roles of DRPC in the allocation of royalties.....	34
Annex A (informative) Content matrix for various service agreements.....		36
Bibliography.....		48
Figure 1	– Permission based on legal analysis.....	16
Figure 2	– The making of a contract.....	16
Figure 3	– Value chain of the digital content business.....	17
Figure 4	– Basic contract and individual contract .....	18
Figure 5	– Content uploaded onto posting sites .....	28
Figure 6	– Validation through a content check function provided by the site administrator.....	28
Figure 7	– Judgment based on validation of the poster by the site administrator .....	29
Figure 8	– Judgment based on notification by a third party.....	30
Figure 9	– Uploading of content whose secondary use is authorized by the content usage contract.....	30
Figure 10	– Uploading of content whose secondary use is prohibited by the content usage contract.....	31
Figure 11	– Uploading of illegal content without a content usage contract.....	31
Figure 12	– Uploading of content whose secondary use is approved by the content usage contract.....	32
Figure 13	– Uploading of content whose secondary use is prohibited by the content usage contract.....	32
Figure 14	– Uploading of illegal content without a content usage contract.....	32
Figure 15	– Overall picture of content identification on posting sites with or without DRPC .....	33
Figure 16	– Royalty allocation scheme based on using content name or ID alone .....	34
Figure 17	– Royalty allocation scheme based on DPCR.....	34
Figure 18	– Overall picture of the allocation of royalties based on DPCR.....	35
Table 1	– Elements of the content usage contract as summarized by IEC 62227:2008.....	19
Table 2	– Elements of an individual contract (catalog) as summarized by IEC 62227:2008 .....	19
Table 3	– Elements of the terms of use of service as summarized by IEC 62227:2008.....	19
Table 4	– Elements of an individual contract for downloading (streaming) content as summarized by IEC 62227:2008 .....	20
Table 5	– Basic contract of the iTUNES STORE as summarized by IEC 62227:2008 .....	20
Table 6	– Individual contract of the iTUNES STORE as summarized by IEC 62227:2008 .....	21
Table 7	– Individual contract of the iTUNES STORE as summarized by IEC 62227:2008 – Third Party.....	21
Table 8	– Basic contract of Amazon.com as summarized by IEC 62227:2008 .....	21
Table 9	– Individual contract of Amazon.com as summarized by IEC 62227:2008 – Music.....	22

Table 10 – Individual contract of Amazon.com as summarized by IEC 62227:2008 – PC software .....	22
Table 11 – Basic Contract of AcTVila as summarized by IEC 62227:2008 .....	22
Table 12 – Individual contract of AcTVila as summarized by IEC 62227:2008 .....	23
Table 13 – Individual contract for content provided through “AcTVila Basic” as summarized by IEC 62227:2008 .....	23
Table 14 – Basic contract of TSUTAYA TV as summarized by IEC 62227:2008 .....	23
Table 15 – Individual contract of TSUTAYA TV as summarized by IEC 62227:2008 .....	24
Table 16 – Basic contract of mora win as summarized by IEC 62227:2008 .....	24
Table 17 – Individual contract of mora win as summarized by IEC 62227:2008 .....	24
Table 18 – Individual contract of mora win as summarized by IEC 62227:2008 – Music provider .....	25
Table 19 – Basic contract of MAGASTORE as summarized by IEC 62227:2008 .....	25
Table 20 – Individual contract of MAGASTORE as summarized by IEC 62227:2008 .....	25
Table 21 – Basic contract of spotify as summarized by IEC 62227:2008 .....	26
Table 22 – Individual contract of Spotify as summarized by IEC 62227:2008 .....	26
Table 23 – Basic contract of NETFLIX as summarized by IEC 62227:2008 .....	26
Table 24 – Individual contract of NETFLIX as summarized by IEC 62227:2008 .....	27

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

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

#### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC/TR 62865, which is a technical report, has been prepared by technical area 8: Multimedia home server systems, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

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

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## 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.

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.

### 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.

## **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*