

TECHNICAL SPECIFICATION

IEC TS 62045-1

First edition
2006-12

Multimedia security – Guideline for privacy protection of equipment and systems in and out of use –

Part 1: General

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MULTIMEDIA SECURITY –
GUIDELINE FOR PRIVACY PROTECTION OF EQUIPMENT
AND SYSTEMS IN AND OUT OF USE –****Part 1: General**

FOREWORD

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- the subject is still under technical development, or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62045-1, which is a technical specification, has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

Enquiry draft	Report on voting
100/1103/DTS	100/1162/RVC

Full information on the voting for the approval of this technical specification 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 list of all the parts of IEC 62045, under the general title *Multimedia security – Guideline for privacy protection of equipment and systems in and out of use*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

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INTRODUCTION

There has been an increase in consumer products of multimedia that store the user's private data and privacy information. For instance, a digital TV tuner has a kind of IC card which stores the user's information and sometimes includes credit information. Also, from a wider viewpoint, digital cameras or digital video recorders store the private data of users, and digital audio players, cellular phones and PCs are banks of private data.

This private information should be protected from unauthorized or illegal access and use.

When the user discards such products, private data remains stored and this should be protected or deleted. In addition, when a user lends his product to others, private information should be protected. For instance, even if all the contents in the memory of digital video recorders or digital cameras are deleted, these data can be recovered easily with some software technology.

As consumer products of multimedia include storage and computer architecture, this problem will be raised in many aspects of usage. All products should have privacy protection methods.

This technical specification describes the system model and general methods for the user's privacy protection of data storage, equipment and systems, both in and out of use. Equipment and systems have their own structure in each application, therefore, the other part of this technical specification defines a dedicated method for privacy protection for the specific application. Also, the implementation of the privacy protection method depends on each design.

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MULTIMEDIA SECURITY – GUIDELINE FOR PRIVACY PROTECTION OF EQUIPMENT AND SYSTEMS IN AND OUT OF USE –

Part 1: General

1 Scope

This part of IEC 62045 gives the guideline for methods for the protection of the user's privacy in consumer equipment and systems, both when the equipment or systems are in use and out of use.

2 Normative references

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

IEC 60958-3, *Digital audio interface – Part 3: Consumer applications*

IEC 61880-2, *Video systems (525/60) – Video and accompanied data using the vertical blanking interval – Analogue interface – Part 2: 525 progressive scan system*

IEC 61883-6, *Consumer audio/video equipment – Digital interface – Part 6: Audio and music data transmission protocol*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

data storage

all kinds of data-storing functions, which are devices or systems including hard disk drive, optical disc and memory devices and others

3.2

data encryption

conversion of data into code or cipher

3.3

data access

reading, writing or use of data stored in data storage

3.4

access control

control for condition of use or entry to system or data

3.5

private data

data that is property of the user

3.6

social engineering

cracking techniques that rely on human rather than hardware and software weaknesses

4 Privacy of user

4.1 Privacy protection

The reason for protecting the user's privacy is that the privacy of the user is the property of the user. The manufacture of equipment and systems, and the service providers have the responsibility of safeguarding the user's privacy.

4.2 Definition of privacy

Privacy, as defined in this specification, is the private information of the user or private information created by the user that is produced or accompanied with user's usage, operation and behaviour with multimedia equipments or systems. Using the equipment, system and service, these activities produce private information that is stored or transferred. This privacy has attribution and origination.

Attribution is specified depending on its nature as shown in Table 1.

Table 1 – Privacy attribution

Privacy attribution	Description	Example
Identification of user	User can be identified with this information	Name, address, telephone number, e-mail address Social information, credit card information, social number Biometrics data of user
Creation by user	Information that is the property of user	Document, photograph, video, music
Provided by user	Information provided by user operation	Broadcasting programme, downloaded contents, cookie, usage record

The identification of the user is fundamental information of the user. The user can be identified by this information, and others can access to the user or the property of user with this information.

Creation by the user is a property of the user. This information should be protected from others.

Provided by the user is also a property of user. This is provided by user operation or behaviour.

The origin of that information is specified as shown in Table 2.

Table 2 – Origin of information

Origin	Description
Direct information	Provided direct by user
Indirect information	Provided indirectly by user's use of equipment or systems
Accompanied information	Data accompanied by the user's use of equipment or systems