SLOVENSKI STANDARD
SIST EN 62514:2010

01-november-2010

Domače večpredstavnostne naprave s funkcijo prehoda - Zahteve (IEC 62514:2010)

Multimedia gateway in home networks - Guidelines (IEC 62514:2010)

Leitfaden für Multimedia Gateway in Heimnetzwerken (IEC 62514:2010)

Passerelle multimédia dans les réseaux domestiques - Lignes directrices (CEI 62514:2010)

Ta slovenski standard je istoveten z: EN 62514:2010

ICS:

33.160.60	Večpredstavni (multimedijski) sistemi in oprema za telekonference	Multimedia systems and teleconferencing equipment

SIST EN 62514:2010   **en,fr,de**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62514

July 2010

ICS 33.160.60; 35.110; 35.200

English version

Multimedia gateway in home networks - Guidelines
(IEC 62514:2010)

Passerelle multimédia dans les réseaux
domestiques -
Lignes directrices
(CEI 62514:2010)

Leitfaden für Multimedia Gateway
in Heimnetzwerken
(IEC 62514:2010)

This European Standard was approved by CENELEC on 2010-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62514:2010 E

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Foreword

The text of document 100/1672/FDIS, future edition 1 of IEC 62514, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62514 on 2010-07-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

– latest date by which the EN has to be implemented
  at national level by publication of an identical
  national standard or by endorsement   (dop)   2011-04-01

– latest date by which the national standards conflicting
  with the EN have to be withdrawn   (dow)   2013-07-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 62514:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62455   NOTE   Harmonized as EN 62455.

Annex ZA
(normative)

Normative references to international publications
with their corresponding European publications

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.

NOTE   When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 62481	Series	Digital living network alliance (DLNA) home networked device interoperability guidelines	EN 62481	Series
IEC 62481-1	2007	Digital living network alliance (DLNA) home networked device interoperability guidelines - Part 1: Architecture and protocols	-	-
IEC 62481-2	-	Digital living network alliance (DLNA) home networked device interoperability guidelines - Part 2: DLNA media formats	-	-
ISO/IEC 14762	2009	Information technology - Functional safety requirements for home and building electronic systems (HBES)	-	-
ISO/IEC 29341	Series	Information technology - UPnP Device Architecture	-	-
ISO/IEC 29341-1	-	Information technology - UPnP Device Architecture - Part 1: UPnP Device Architecture Version 1.0	-	-
ISO/IEC 29341-3	Series	Information technology - UPnP Device Architecture - Part 3: Audio Video Device Control Protocol	-	-
ISO/IEC 15045-1	-	Information technology - Home electronic system (HES) gateway - Part 1: A residential gateway model for HES	-	-
ITU-T G.9960	-	Next generation home networking transceivers	-	-
UPnP Forum	Series	Quality of Service:3	-	-
RFC 2663	-	IP Network Address Translator (NAT) Terminology and Considerations	-	-
RFC 3022	-	Traditional IP Network Address Translator (Traditional NAT)	-	-
IEEE 802.16	-	IEEE Standard for Local and metropolitan area networks – Part 16: Air Interface for Fixed Broadband Wireless Access Systems (WiMax)	-	-

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IEC 62514

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INTERNATIONAL
STANDARD

colour
inside

Multimedia gateway in home networks – Guidelines

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INTERNATIONAL ELECTROTECHNICAL COMMISSION
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MULTIMEDIA GATEWAY IN HOME NETWORKS – GUIDELINES

FOREWORD

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International Standard IEC 62514 has been prepared by technical area 9: Audio, video and multimedia applications for end-user network, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/1672/FDIS	100/1705/RVD

Full information on the voting for the approval of this standard 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.

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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.**

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INTRODUCTION

In a digital home, in order to meet the various requirements of digital living, all kinds of communication devices (computers, consumer-electrical products etc) are integrated into a home network. Such a network (comprising home information, entertainment, control services, etc.) thus forms a system of information exchange with outside networks.

A home network system is a Local Area Network (LAN) connecting such terminal devices as information devices, communication devices, entertainment devices, household appliances, meters of gas, water and electricity, health-care equipment, lighting and security systems, etc. to implement the network management and services and share the resources and services in the network.

The multimedia services and the management for devices mentioned above can be performed through a home multimedia gateway.

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MULTIMEDIA GATEWAY IN HOME NETWORKS – GUIDELINES

1   Scope

This International Standard describes the general guidelines for typical applications of the home multimedia gateway in home networks supporting IP networking.

This standard specifies recommended functions and services to be supported by the home multimedia gateway and, where appropriate, refers to existing standards supported in the market. For general requirements, it is expected that widely adopted standards and technologies will be considered by implementers.

This standard gives supplementary application to IEC 62481, which specifies a central management model in home network supporting various interfaces in LAN side and WAN side (optional).

This standard is applicable to home multimedia gateways in the home network or networks of similar environment.

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2   Normative references

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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 62481 (all parts), *Digital living network alliance (DLNA) home networked device interoperability guidelines*

IEC 62481-1:2007, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 1: Architecture and protocols*

IEC 62481-2, *Digital living network alliance (DLNA) home networked device interoperability guidelines – Part 2: Media formats*

ISO/IEC 14762, *Information technology – Functional safety requirements for home and building electronic systems (HBES)*

ISO/IEC 29341 (all parts), *Information technology – UPnP Device Architecture*

ISO/IEC 29341-1, *Information technology – UpnP Device Architecture – Part 1: UpnP Device Architecture Version 1.0*

ISO/IEC 29341-3 (all Parts 3), *Information technology – UpnP Device Architecture – Part 3: Audio Visual Device Control Protocol*

ISO/IEC 15045-1, *Information technology – Home electronic system (HES) gateway – Part 1: A residential gateway model for HES*

ITU-T G.9960 /9961/G.hn   *Next generation home networking transceivers*

UPnP Forum: *Quality of Service:3 (all parts), http://www.upnp.org/specs/qos/qos3.asp*

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RFC 2663, *IP Network Address Translator (NAT) Terminology and Considerations*

RFC 3022, *Traditional IP Network Address Translator (Traditional NAT)*

IEEE 802.16, *IEEE Standard for Local and metropolitan area networks Media Access Control (MAC) Bridges*

3   Terms, definitions and abbreviations

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

3.1   Terms and definitions

3.1.1
home multimedia network
high speed network system to transport multimedia information within the home network

3.1.2
home multimedia gateway
HMG
logical device in the home network, which provides such functions as multimedia processing and home automations, interconnection, QoS and security, etc; it can also connect LAN with outside networks (for example internet), implementing protocol translation and offer various network services

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3.1.3
home control network
network that transports control information in the home network

3.1.4
home control gateway
provides protocol translation, device management, network management and control services in a home control network which can be combined with HMG in the form of a physical device

3.1.5
control point
retrieves device and service descriptions, sends actions to services, polls for service state variables and receives events from Services

NOTE 'Service' is a term that is also defined in the ISO/IEC 29341 series.

3.1.6
terminal device
devices in the home network that can be controlled and managed by HMG and control point

3.1.7
media receiver
MR
device that receives media contents

NOTE   It normally refers to the media content player.

3.1.8
home media receiver
HMRec
device that receives media contents in the home network