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Multimedia gateway in home networks – Guidelines

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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.

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- withdrawn,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.

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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.

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.

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 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*

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*