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# INTERNATIONAL STANDARD

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**Information technology – Home electronic system (HES) architecture –  
Part 5-3: Intelligent grouping and resource sharing for HES Class 2 and Class 3 –  
Basic application**

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## **INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) ARCHITECTURE –**

### **Part 5-3: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Basic application**

#### **FOREWORD**

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International Standard ISO/IEC 14543-5-3 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 14543 series, under the general title *Information technology – Home electronic system (HES) architecture*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

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

## INTRODUCTION

ISO/IEC 14543-5, Information technology – Home electronic system (HES) architecture – Part 5: Intelligent grouping and resource sharing for HES (IGRS), consists of the following parts:

### ➤ **IGRS Part 5-1: Core protocol**

- Specifies the TCP/IP protocol stack as the basis and the HTTP protocol as the message-exchanging framework among devices.
- Specifies a series of device and service interaction/invocation standards, including device and service discovery protocol, device and service description, service invocation, security mechanisms, etc.
- Specifies core protocols for a type of home network that supports streaming media and other high-speed data transport within a home.

### ➤ **IGRS Parts 5-2#: Application profile**

- Based on the IGRS Core Protocol.
- Specifies a device and service interaction mechanism, as well as application interfaces used in IGRS Basic Applications.
- Multiple application profiles are specified, including:
  - Part 5-21: AV profile
  - Part 5-22: File profile
- Additional application profiles are planned (part numbers to be assigned)
  - Part 5-2w: DVD profile
  - Part 5-2x: QoS profile
  - Part 5-2y: DMCP profile
  - Part 5-2z: Universal control profile

### ➤ **IGRS Part 5-3: Basic application**

- Includes an IGRS basic application list.
- Specifies a basic application framework.
- Specifies operation details (device grouping, service description template, etc.), function definitions and service invocation interfaces.

### ➤ **IGRS Part 5-4: Device validation**

- Specifies a standard method to validate an IGRS-compliant device.

### ➤ **IGRS Part 5-5: Device type**

- Specifies IGRS Device types used in IGRS applications.

### ➤ **IGRS Part 5-6: Service type**

- Specifies basic service types used in IGRS applications.

## **INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) ARCHITECTURE –**

### **Part 5-3: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Basic application**

#### **1 Scope**

This part of ISO/IEC 14543 defines design criteria and application requirements enabled by the relevant application profiles. It also defines required or optional interaction processes, interaction interfaces, software and hardware interfaces and the software framework that may or may not be specified by the existing application profiles related to the IGRS basic applications.

This part of the ISO/IEC 14543 is applicable to computers, household appliances and communication devices that implement media data streaming by wired or wireless means.

#### **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.

ISO/IEC 8802-3:2000, *Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications*

ISO/IEC 13818-11:2004, *Information technology – Generic coding of moving pictures and associated audio information – Part 11: IPMP on MPEG-2 systems*

ISO/IEC 14543-5-1, *Information technology – Home electronic system (HES) architecture – Part 5-1: Intelligent grouping and resource sharing for Class 2 and Class 3 – Core protocol*

ISO/IEC 14543-5-6, *Information technology – Home electronic system (HES) architecture – Part 5-6: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Service type<sup>1</sup>*

ISO/IEC 14543-5-21, *Information technology – Home electronic system (HES) architecture – Part 5-21: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Application profile – AV profile*

ISO/IEC 14543-5-22, *Information technology – Home electronic system (HES) architecture – Part 5-22: Intelligent grouping and resource sharing for HES Class 2 and Class 3 – Application profile – File profile*

ISO/IEC 15444-4:2004, *Information technology – JPEG 2000 image coding system: Conformance testing*

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ISO/IEC 23000-2:2008, *Information technology – Multimedia application format (MPEG-A) – Part 2: MPEG music player application format*

ISO/IEC 29341-3-1:2008, *Information technology – UPnP Device Architecture – Part 3-1: Audio Video Device Control Protocol – Audio Video Architecture*