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**Information technology -- Home electronic system (HES)
architecture -- Part 2-1: Introduction and device modularity**

信息技术 家用电子系统（HES）体系结构 第2-1部分：引言和设备模块化
(English Translation)

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Foreword

GB/T 301100 "Information technology - Home Electronic Systems (HES) architecture" is divided into the following sections.

- Part 2-1. Introduction and device modularity
- Part 3-1. Communication layers - a class-based network application layer control of HES
- Part 3-2. Communication layers - a class-based network transport layer control of HES, the network layer and the data link layer - General
- Part 3-3. 1 class-based network management protocols HES control
- Part 3-4. System management - based network management protocols HES Class 1 control

- Part 3-5. Media and media dependent layers - Class-based control of the power line 1 HES
- Part 3-6. Media and media dependent layers - Class 1 HES-based control network twisted pair
- Part 3-7. Media and media dependent layers - Class 1 HES control based on radio frequency network
- Part 4-1. Communication Layer Class 1 HES network enhanced control devices application layer Universal Communications Layer Class 1 HES network enhanced transport layer control device, the network layer and the data link layer. --- Part 4-2 section
- Part 5-1. Class 2 and resource sharing and collaboration service based protocol class 3
- Part 5-21. Class 2 and Class 3 resource sharing and collaboration services application framework AV framework
- Part 5-22. Class 2 and Class 3 resource sharing and document collaboration services application profile contour
- Part 5-3. Class 2 and resource sharing and collaboration service based application category 3
- Part 5-4. Class 2 and Class 3 resource sharing and collaboration service verification equipment
- Part 5-5. Class 2 and Class 3 resource sharing and collaboration service device type
- Part 5-6. Class 2 and Class 3 resource sharing and collaboration service type of service this section GB/T Part of 2-1301100.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This part redrafted law revision using ISO/IEC 14543-2-1:2006 "Information technology - Home Electronic Systems (HES) system Architecture - Part 2-1. Introduction and device modularity. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 9387.1-1998 Information technology - Open Systems Interconnection - Basic Reference Model - Part 1. Basic Model (ISO/IEC 7498-1:1994, IDT).

This part made the following editorial changes.

- 3.2.3 removed the original "application process", with the original article 3.1.2 "application process" repeat;
- Removed the key words 3.1 and 3.2, according to the national standard introductory phrase to write;

--- 3.3 "Abbreviations" Adjusting to Chapter 4;

--- Normative references added GB/T 29269-2012 "Residential IT generic cabling." this part of the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points.

This section drafted by. China Electronics Standardization Institute, Beijing IGRS Information Industry Association, IGRS Information Technology Engineering Center Limited.

Introduction

In the home and similar environments using a variety of different electronic control devices for different applications, used in lighting, heating, cooking, laundry, energy tube Management, water control, fire alarm, curtain control, and various forms of security controls and entertainment (audio and video) and so on.

When some of the internal network equipment via the public (in this section referred to as "home network") capable network, consisting of a total system call home Control system. When home control system complies with ISO/IEC HES series of standards specifications, called home electronic system (Home ElectronicSystem; HES).

This section defines three categories of home electronic systems. The first has a transport capacity, only for the remote control; the second category includes the first category, but also supports switched media bandwidth data channels; third category also includes first and second categories, and support for high-bandwidth switched data channel.

A home network may be based on one or more than one different media (such as power lines, symmetrical cable, infrared or radio) can also be connected to External network (such as a telephone network, cable television network, grid or alarm network).

Or audio and video control system, and gradually developed into a comprehensive multi-application systems. One application of additional costs, depending on whether you need to rewire homes Lines and existing cable, the default pipeline or other media can use. Therefore, home electronic system of standards and technical reports will complement such He shared these resources to system architects, builders and users are given guidelines.

Information technology - Home Electronic Systems (HES) Architecture Part 2-1.
Introduction and device modularity

1 Scope

GB/T 301 100 This part gives general characteristics of home electronic systems.

Its objectives are.

a) defines the use of GB/T 301100 series of standards of new terminology;

- b) gives a total description of the characteristics and architecture HES necessary given the overall information and advice;
- c) provides for HES model;
- d) specifies the basic functional structure of HES interface.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 29269-2012 Information technology - Residential generic cabling (ISO/IEC 15018:2004, IDT) ISO/IEC 7498-1 Information technology - Open Systems Interconnection - Basic Reference Model - Part 1. Basic model (Information technology-Opensystemsinterconnection-BasicReferenceModel-Part 1. TheBasicModel) ISO/IEC 10192-1 Information technology - Home Electronic Systems (HES) interfaces - Part 1. Universal Interface (UI) Class 1 (Informationtechnology-Homeelectronicsystem (HES) interfaces-Part 1. Universalinterfaceclass1)

3 Terms and Definitions

ISO/IEC 7498-1 define the following terms and definitions apply to this document.

Application Entity Application of the process of the active element, and containing about OSI, and is a set of capabilities defined in the application layer, corresponding to a particular application entity class Type (not including excess capacity is being used).

[ISO/IEC 7498-1, the definition 7.1.1.1] 3.2 Application process in the real open system, the implementation of elements of information processing for specific applications.

[ISO/IEC 7498-1, the definition 4.1.4] 3.3 Connectionless mode transmission connection-motransmission in the (N) connection in the context of (N) data transmission.

[ISO/IEC 7498-1, defined 5.3.1.17]