

**INTERNATIONAL
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**Information technology –
Home electronic system (HES) architecture –**

**Part 3-1:
Communication layers – Application layer for
network based control of HES Class 1**



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Information technology – Home electronic system (HES) architecture –

Part 3-1: Communication layers – Application layer for network based control of HES Class 1

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INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) ARCHITECTURE –

Part 3-1: Communication layers – Application layer for network based control of HES Class 1

FOREWORD

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

This International Standard together with ISO/IEC 14543-3-2 cancels and replaces ISO/IEC TR 14543-3, published in 2000. It constitutes a complete revision of the principles outlined in ISO/IEC TR 14543-3 and provides the specifications essential for an international standard.

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

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 title page.

INTRODUCTION

This part of ISO/IEC 14543 specifies the services and protocol of the application layer for usage in Home Electronic Systems. Some services are targeted to field level communication between devices. Other services are exclusively reserved for management purposes. Some services can be used for both management and run-time communication.

Currently, ISO/IEC 14543, *Information technology – Home Electronic System (HES) architecture*, consists of the following parts:

- Part 2-1: *Introduction and device modularity*
- Part 3-1: *Communication layers – Application layer for network based control of HES Class 1*
- Part 3-2: *Communication layers – Transport, network and general parts of data link layer for network based control of HES Class 1*
- Part 3-3: *User process for network based control of HES Class 1 (under consideration)*
- Part 3-4: *System management – Management procedures for network based control of HES Class 1 (under consideration)*
- Part 3-5: *Media and media dependent layers – Power line for network based control of HES Class 1 (under consideration)*
- Part 3-6: *Media and media dependent layers – Twisted pair for network based control of HES Class 1 (under consideration)*
- Part 3-7: *Media and media dependent layers – Radio frequency for network based control of HES Class 1 (under consideration)*
- Part 4: *Home and building automation in a mixed-use building (technical report)*
Additional parts may be added later.

INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) ARCHITECTURE –

Part 3-1: Communication layers – Application layer for network based control of HES Class 1

1 Scope

This part of the ISO/IEC 14543 specifies the services and protocol of the application layer for usage in Home Electronic Systems. It provides the services and the interface to the user process as defined in ISO/IEC 14543-3-3 (EN 50090-3-2). This procedure is based on the services and the protocol as provided by the transport layer, the network layer and the data link layer as specified in ISO/IEC 14543-3-2.

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 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 14543-2-1, *Information technology – Home electronic system (HES) architecture – Part 2-1: Introduction and device modularity*

ISO/IEC 14543-3-2, *Information technology – Home electronic system (HES) – Part 3-2: Communication layers – Transport, network and general parts of data link layer for network based control of HES class 1*

EN 50090-3-2:2003, *Home and Building Electronic Systems (HBES) – Part 3-2: Aspects of application – User process for HBES Class 1*

NOTE 1 Reference to this standard will be replaced by reference to International Standard ISO/IEC 14543-3-3 which is currently under consideration. Please refer to bibliography.

EN 50090-7-1:2003, *Home and Building Electronic Systems (HBES) – Part 7-1: System Management – Management procedures*

NOTE 2 Reference to this standard will be replaced by reference to International Standard ISO/IEC 14543-3-4 which is currently under consideration. Please refer to bibliography.

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document the terms and definitions given in ISO/IEC 14543-2-1 and the following apply.

3.1.1

application (in the sense of network application)

system, including its associated transmission method, which is supported by telecommunications cabling

[ISO/IEC 11801:2002, definition 3.1.2]