

SYSTEMS REFERENCE DELIVERABLE

Reference standards portfolio (RSP) on interoperability and connectivity for
active assisted living (AAL) in the connected home environment (CHE)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**REFERENCE STANDARDS PORTFOLIO (RSP) ON INTEROPERABILITY
AND CONNECTIVITY FOR ACTIVE ASSISTED LIVING (AAL) IN THE
CONNECTED HOME ENVIRONMENT (CHE)**

FOREWORD

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IEC SRD 63426 has been prepared by IEC systems committee AAL: Active Assisted Living. It is a Systems Resource Deliverable.

The text of this Systems Resource Deliverable is based on the following documents:

Draft	Report on voting
SyCAAL/334/DTS	SyCAAL/361/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Systems Resource Deliverable is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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INTRODUCTION

This document provides reference standards to active assisted living connected home environment (AAL CHE) system and device vendors about how to achieve interoperability and connectivity between AAL CHE elements and instances. An element defined in this document is a sub-component of an AAL CHE system component, which is made up of devices, services and systems classified in each AAL CHE system component. An instance is a specific example of elements, used in AAL CHE.

This document reflects contributions and discussions by systems committee active assisted living (SyC AAL) experts, mirror committees and liaison members. This document also contains material gathered from reports, AAL research projects and group output from the SyC AAL meetings in October 2020 (virtual meeting), October 2021 (virtual meeting), as well as information obtained during various web meetings.

This reference standards portfolio will be revised as additional standards and specifications are identified and added.

The documents listed in Clause 5 also include specifications and protocols that are not International Standards.

The applicable versions of the standards/specifications listed in Clause 5 can be found on the IEC Mapping platform:

- <https://mapping.iec.ch/#/maps/52>

The target audience in this document includes the following stakeholders who have an interest in the AAL system:

- AAL users and service provider personnel who intend to learn about AAL user needs and how to operate AAL systems;
- vendors who intend to develop systems and devices for AAL CHE.

This document identifies standardization needs and new standardization opportunities specific to the use of the AAL CHE element.

REFERENCE STANDARDS PORTFOLIO (RSP) ON INTEROPERABILITY AND CONNECTIVITY FOR ACTIVE ASSISTED LIVING (AAL) IN THE CONNECTED HOME ENVIRONMENT (CHE)

1 Scope

This document classifies elements suitable for an AAL connected home environment based on AAL system components. This document defines instances which are specific examples of elements used in an AAL connected home environment (AAL CHE).

An element defined in this document is a specialized and subdivided classification of a connected home environment. An instance is a specific example of an element used in an AAL CHE.

This document lists standards applicable to AAL CHE elements and AAL CHE instances, with a focus on interoperability and connectivity.

NOTE: IEC SRD 63473 relates to this document.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

<https://standards.iteh.ai/>
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

AAL

active assisted living

concepts, products, services, and systems combining technologies and social environment with the aim of improving the quality of people's lives

[SOURCE: IEC 60050-871:2018, 871-01-02, modified – deprecated term omitted.]

3.2

CHE

connected home environment

home environment that provides a home network (IEV 732-10-01) so that devices within the home can communicate to one another and to devices outside the home

Note 1 to entry: AAL connected homes and smart homes share some commonalities.

[SOURCE: IEC 60050-871:2023, 871-05-10, modified – Abbreviated term added.]

3.3**AAL CHE****active assisted living connected home environment**

connected home environment with features to support AAL users

3.4**AAL CHE system component**

device(s), service(s), system(s), gateway(s) and backend system that make up a CHE

3.5**AAL CHE device**

device used in an AAL CHE service

3.6**AAL CHE application and service**

action or function of an AAL CHE system creating an added value for customers

3.7**AAL CHE information system**

collection of technical and human resources that provide the storage, computing, distribution, and communication for the information required by an AAL CHE service

3.8**AAL CHE gateway**

functional unit that connects two computer networks with different network architectures and protocols

3.9**AAL CHE element**

sub-component of an AAL CHE system component, which is made up of devices, services and systems classified in each AAL CHE system component

EXAMPLE Personal health devices, comfort devices, etc.

3.10**AAL CHE instance**

specific example of CHE elements

EXAMPLE Glucose meter, thermometer, etc.

3.11**personal health device****PHD**

device used in personal health applications

[SOURCE: ISO/IEEE 11073-20601:2022, 3.1, modified – Abbreviated term added.]

3.12**multimedia device**

tool or piece of equipment that allows AAL users to experience several types of digital media at once

[SOURCE: <https://www.reference.com/world-view/multimedia-device-ae8f673a461354c7>, modified, – "a user" replaced by "AAL users".]

3.13**comfort device**

home appliance made to provide comfort to users

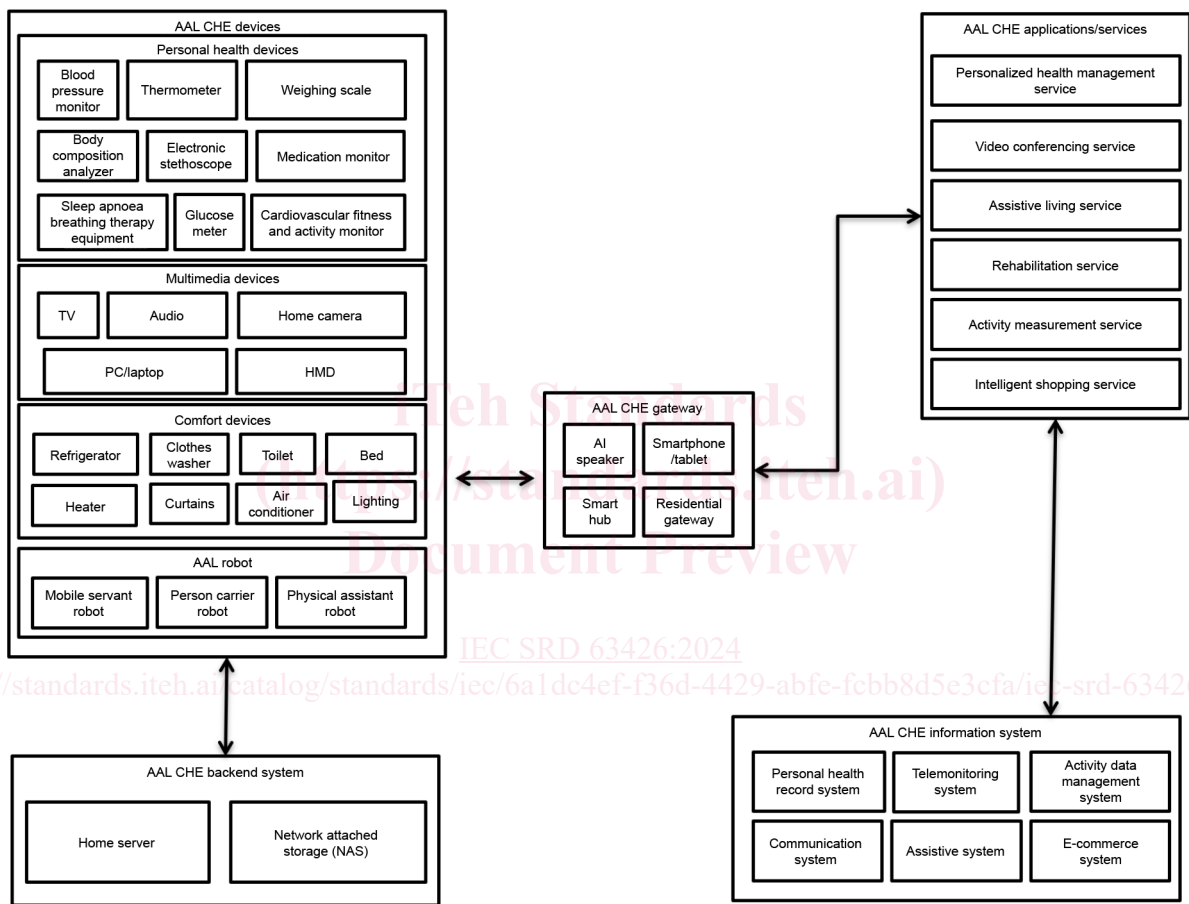
3.14

AAL robot

robot or robot system that provides AAL users with such services as monitoring, communication support, activity support, mobile support, and information and data management in the CHE

4 AAL CHE elements in a sub-component of an AAL CHE system component and AAL CHE instances

Figure 1 shows AAL CHE elements and AAL CHE instances with data communications between them.



IEC

Figure 1 – AAL CHE elements and AAL CHE instances with data communications

An AAL CHE device is used in an AAL CHE service and is classified into the following categories: personal health devices, multimedia devices, comfort devices, AAL robots, and others.