

This is a preview - click here to buy the full publication



IEC SRD 63473

Edition 1.0 2024-04

SYSTEMS REFERENCE DELIVERABLE



Active assisted living (AAL) use case standards inventory and mapping

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 11.020.10

ISBN 978-2-8322-8685-2

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions	6
4 Systems approach to developing international standards inventory and use case mapping	10
5 Domain and stakeholder analysis	10
6 Use case analysis.....	10
6.1 General.....	10
6.2 Use case level of assistance	11
6.3 Use case level of criticality.....	11
6.4 Use case categories	11
6.5 AAL use cases.....	11
7 Architecting and modelling.....	11
8 Standards analysis	12
8.1 Approach to developing the international standards inventory	12
8.2 AAL standards evaluation	12
8.3 AAL standards categories	13
8.4 AAL international standards inventory	14
8.5 AAL use case international standards analysis.....	14
8.6 AAL use case analysis	15
8.7 Visual representation – Device.....	17
8.8 Visual representation – System.....	18
8.9 Visual representation – Regulations.....	18
9 Gap analysis	19
Bibliography.....	20
Figure 1 – Conceptual AAL Architecture Model (per IEC 63240-2)	12
Figure 2 – Use case 1 from IEC TS 63134	16
Figure 3 – Example visual representation – Device	18
Figure 4 – Example visual representation – System	18
Figure 5 – Example visual representation – Regulations	19
Table 1 – AAL international standards inventory format	14
Table 2 – Standards categorization.....	15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ACTIVE ASSISTED LIVING (AAL) USE CASE STANDARDS INVENTORY AND MAPPING

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC SRD 63473, which is a Systems Reference Deliverable, has been prepared by IEC systems committee AAL: Active Assisted Living.

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

Draft SRD	Report on voting
SyCAAL/332/DTS	SyCAAL/338/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 Reference 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.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

IEC systems committee Active Assisted Living (SyC AAL) was formed to develop solutions to help AAL users of any age to live independently for as long as possible. AAL International Standards provide guidance for systems to be developed to ensure independent living. AAL develops systems based on the criteria of individual use cases. AAL systems are compilations of components, systems, and services from multiple vendors and service providers and contain a large variety of hardware and software systems, including medical devices, wellness devices, network hubs, IT systems, home monitoring devices, smart home technology, etc.

The task of AAL is to develop standards considering products, services, systems, safety, security, privacy, usability, accessibility, performance, and interoperability.

This document describes the process of identifying, compiling, and maintaining an inventory of international standards applicable to AAL systems. This document also describes the process of mapping international standards to individual use cases and identifying any gaps in the coverage of these international standards.

ACTIVE ASSISTED LIVING (AAL) USE CASE STANDARDS INVENTORY AND MAPPING

1 Scope

The purpose of this document is to describe the process of building an inventory of international standards based on use cases, mapping these international standards to individual use cases, and providing a visual representation in the IEC mapping platform.

This document identifies the main categories of international standards applicable to AAL systems and applies these international standards to AAL components and the complete AAL system.

Although there are national and regional standards that can address parts of AAL systems, this document will focus only on standards developed at the international level (e.g., IEC, ISO, ITU-T).

2 Normative references

There are no normative references in this document.