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TECHNICAL SPECIFICATION

colour inside

Active assisted living (AAL) use cases

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FOREWORD

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- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical Specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 63134, which is a Technical Specification, has been prepared by IEC systems committee Active Assisted Living.

The text of this Technical Specification is based on the following documents:

Enquiry draft	Report on voting
SyCAAL/152/DTS	SyCAAL/167/RVDTS

Full information on the voting for the approval of this Technical Specification can be found in the report on voting indicated in the above table.

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

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

- transformed into an International Standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

IEC SyC AAL is developing use cases for AAL system standards with a view to identify gaps in standardization.

All selected use cases have a real-world validity. The development of use cases makes it easier to define AAL categories of similar use cases and highlight their commonalities. It was then possible to extract functional requirements from the use cases and make recommendations for future standardization items related to AAL. Collecting the use cases also allowed SyC AAL to validate the proposed AAL reference model and reference architecture.

This document captures the results of a use case input process that began with the call for contributions of AAL use cases in November 2015. The current document reflects contributions and discussions by 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 November 2015 (Tokyo), April 2016 (Wellington), October 2016 (Frankfurt), April 2017 (Beijing), September 2017 (Cleveland), May 2018 (Tokyo) and October 2018 (Seoul), as well as information obtained from the subsequent web calls to the meetings.

As of November 2018, a total of 45 use cases were submitted. To start the project, members of the SyC AAL user focus working group were requested to submit use cases using the IEC template. The use case submissions consisted of the title of the use case, a description and the origin of the use case. The use case template helped to group and categorize the use cases according to the identified functional requirements and needs of users. The former AAL use case template developed in SG 3 AAL was modified in order to capture also wider societal issues including security, risk and privacy, as well as looking at AAL in relation to the Internet of Things (IoT).

Experts from the following national committees, liaison organizations and research projects contributed use cases on AAL: Canada, China, Japan, Germany, Netherlands, South Korea, UK, USA, ISO IEC JTC 1 SC 41 PCHA and Continua and AALiance2.

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

- AAL users and service provider personnel who can learn about AAL user needs and how to operate AAL systems;
- first responders, formal carers, etc. to understand how to respond to an AAL system emergency call;
- CE and ICT device manufacturers who want to understand AAL devices and interface and interoperability requirements;
- AAL care recipients who are interested in the usability, accessibility and performance of the AAL system;
- AAL operators to understand the system requirements;
- regulators who are responsible for developing and supervising AAL and related regulations.

ACTIVE ASSISTED LIVING (AAL) USE CASES

1 Scope

This document identifies AAL scenarios and use cases based on real-world applications and requirements. The use cases provide a practical context for considerations of interoperability and standards based on user experience. Use cases provide a context for utilizing existing standards and identifying further standardization work. User requirements have also been identified.

This document also highlights potential areas for standardization in the AAL environment to ensure safety, security, privacy, ease of operation, performance and interoperability.

Lastly, this document is a contribution to the IEC use case management repository, the purpose of which is to collect, administer, maintain, and analyse use cases.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60050-871, *International Electrotechnical Vocabulary – Part 871: Active assisted living (AAL)*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-871 apply.

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

3.2 Abbreviated terms

AAL	active assisted living
ADL	activities of daily living
AMM	advanced medication monitoring
BAN	body area network
ETA	enhanced terminal accessibility
IADL	instrumental activities of daily living
IoT	Internet of Things
km	kilometres
UCMR	use case management repository