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Active assisted living (AAL) use cases

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National foreword

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CONTENTS

FOREWORD 9
INTRODUCTION 11
1 Scope 12
2 Normative references 12
3 Terms, definitions and abbreviated terms 12
3.1 Terms and definitions 12
3.2 Abbreviated terms 12
4 General 13
4.1 Overview 13
4.2 Objectives 13
4.3 Use case development stages 13
4.4 AAL architecture model 13
5 Definition of AAL use case template 15
5.1 Overview 15
5.2 Description of use case 15
5.3 AAL levels of criticality 15
5.4 Levels of assistance (user domains) 16
5.5 Use case categories 17
5.6 Context of use 18
5.7 System component composition 19
5.8 Actors 20
5.8.1 General 20
5.8.2 Persons 20
5.8.3 Technical components 20
5.8.4 Organizations 20
5.8.5 Relationship between actors 21
6 Use case analysis 21
6.1 General 21
6.2 Overview and representative use cases 21
6.2.1 General 21
6.2.2 Prevention and management of chronic long-term conditions 23
6.2.3 Social interaction 24
6.2.4 Mobility 24
6.2.5 Health & wellness 25
6.2.6 (Self-)management of daily life activities at home 26
6.3 Functionalities that appear in each use case 26
7 Considerations of user requirements 28
7.1 General 28
7.2 Definition of user requirements 29
7.2.1 General 29
7.2.2 Safety 30
7.2.3 Security 30
7.2.4 Privacy and data protection 31
7.2.5 Functional requirements 31
8 Summary of standards gap analysis 32
9 Conclusions and recommendations 32

Annex A (informative) AAL use case template (version 1.10) 33
A.1 Level of criticality (See 5.3) 33
A.2 Name of use case 33
A.3 AAL function and service layer 33
A.4 AAL system component composition 33
A.5 Version management 33
A.6 Basic information to use case 34
A.7 Scope and objectives of use case 34
A.8 Narrative of use case 34
A.9 Actors: people, components, systems, integrated systems, applications and organizations 34
A.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 34
A.11 Referenced standards and/or standardization committees 35
A.12 Relation with other known use cases 35
A.13 General remarks 35
A.14 Data security and privacy 35
A.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL 35
A.16 User requirements and interactions with other actors 35
A.17 Drawings or diagrams depicting the use case 35
Annex B (informative) Representative use cases 36
B.1 Use case 1 personal health check 36
B.1.1 Level of criticality (See 5.3) 36
B.1.2 Name of use case 36
B.1.3 AAL function and service layer 36
B.1.4 AAL system component composition 36
B.1.5 Version management 37
B.1.6 Basicinformation to use case 37
B.1.7 Scope and objectives of use case 37
B.1.8 Narrative of use case 38
B.1.9 Actors: people, components, systems, integrated systems, applications and organizations 38
B.1.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 38
B.1.11 Referenced standards and/or standardization committees 39
B.1.12 Relation with other known use cases 39
B.1.13 General remarks 39
B.1.14 Data security and privacy 39
B.1.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 39
B.1.16 User requirements and interactions with other actors 39
B.1.17 Drawings or diagrams depicting the use case 40
B.2 Use Case 2 Advanced medication monitoring 40
B.2.1 Level of criticality (See 5.3) 40
B.2.2 Name of Use Case 40
B.2.3 AAL function and service layer 40
B.2.4 AAL system component composition 41
B.2.5 Version management 41
B.2.6 Basic Information to use case 41

B.2.7 Scope and objectives of use case 41
B.2.8 Narrative of use case 41
B.2.9 Actors: people, components, systems, integrated systems, applications and organizations 44
B.2.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 44
B.2.11 Referenced standards and/or standardization committees 44
B.2.12 Relation with other known use cases 44
B.2.13 General remarks 44
B.2.14 Security and privacy 45
B.2.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 45
B.2.16 User requirements and interactions with other actors 45
B.2.17 Drawings or diagrams depicting the use case 46
B.3 Use Case 3 enable social interaction with care provider 46
B.3.1 Level of criticality (See 5.3) 46
B.3.2 Name of use case 47
B.3.3 AAL function and service layer 47
B.3.4 AAL system component composition 47
B.3.5 Version management 47
B.3.6 Basic information to use case 48
B.3.7 Scope and objectives of use Case 48
B.3.8 Narrative of use case 49
B.3.9 Actors: people, components, systems, integrated systems, applications and organizations 50
B.3.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 50
B.3.11 Standards and/or Standardization Committees 50
B.3.12 Relation with other known use cases 51
B.3.13 General remarks 51
B.3.14 Data security and privacy 51
B.3.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 51
B.3.16 User requirements and interactions with other actors 51
B.3.17 Drawings or diagrams depicting the use case 52
B.4 Use Case 4 social interaction with smart TV 53
B.4.1 Level of criticality (see 5.3) 53
B.4.2 Name of use case 53
B.4.3 AAL function and service layer 53
B.4.4 AAL system component composition 54
B.4.5 Version management 54
B.4.6 Basic information to use case 54
B.4.7 Scope and objectives of use case 55
B.4.8 Narrative of use case 55
B.4.9 Actors: people, components, systems, integrated systems, applications and organizations 55
B.4.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 56
B.4.11 Referenced standards and/or standardization Committees 56
B.4.12 Relation with other known use cases 56
B.4.13 General remarks 56

B.4.14 Data security and privacy 56
B.4.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 56
B.4.16 User requirements and interactions with other actors 57
B.4.17 Drawings or diagrams depicting the use case 57
B.5 Use Case 5 smart wheeled walker 58
B.5.1 Level of criticality (See 5.3) 58
B.5.2 Name of use case 59
B.5.3 AAL function and service layer 59
B.5.4 AAL system component composition 59
B.5.5 Version management 59
B.5.6 Basic information to use case 60
B.5.7 Scope and objectives of use case 60
B.5.8 Narrative of use case 61
B.5.9 Actors: people, components, systems, integrated systems, applications and organizations 61
B.5.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 62
B.5.11 Referenced standards and/or standardization committees 62
B.5.12 Relation with other known use cases 62
B.5.13 General remarks 62
B.5.14 Data security and privacy 62
B.5.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 63
B.5.16 User requirements and interactions with other actors 63
B.5.17 Drawings or diagrams depicting the use case 63
B.6 Use Case 6 enhanced terminal accessibility 64
B.6.1 Level of criticality (See 5.3) 64
B.6.2 Name of Use Case 64
B.6.3 AAL function and service layer 65
B.6.4 AAL system component composition 65
B.6.5 Version management 65
B.6.6 Basic information to use case 65
B.6.7 Scope and objectives of use case 66
B.6.8 Narrative of use case 66
B.6.9 Actors: people, components, systems, integrated systems, applications and organizations 67
B.6.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 67
B.6.11 Referenced standards and/or standardization committees 67
B.6.12 Relation with other known use cases 67
B.6.13 General Remarks 68
B.6.14 Data Security and Privacy 68
B.6.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 68
B.6.16 User requirements and interactions with other actors 68
B.6.17 Drawings or diagrams depicting the use case 69
B.7 Use Case 7 intelligent apartment 69
B.7.1 Level of criticality (See 5.3) 69
B.7.2 Name of use case 69

B.7.3 AAL function and service layer 70
B.7.4 BAAL system component composition 70
B.7.5 Version management 70
B.7.6 Basic information to use case 71
B.7.7 Scope and objectives of use case 71
B.7.8 Narrative of use case 72
B.7.9 Actors: people, components, systems, integrated systems, applications and organizations 73
B.7.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 73
B.7.11 Referenced standards and/or standardization committees 73
B.7.12 Relation with other known use cases 74
B.7.13 General remarks 74
B.7.14 Data security and privacy 74
B.7.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 74
B.7.16 User requirements and interactions with other actors 74
B.7.17 Drawings or diagrams depicting the use case 75
B.8 Use Case 8 personal trainer 75
B.8.1 Level of criticality (See 5.3) 75
B.8.2 Name of use case 76
B.8.3 AAL function and service layer 76
B.8.4 AAL system component composition 76
B.8.5 Version management 76
B.8.6 Basic information to use case 77
B.8.7 Scope and objectives of use case 77
B.8.8 Narrative of Use Case 77
B.8.9 Actors: people, components, systems, integrated systems, applications and organizations 78
B.8.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 78
B.8.11 Referenced standards and/or standardization committees 78
B.8.12 Relation with other known use cases 78
B.8.13 General remarks 79
B.8.14 Data security and privacy 79
B.8.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 79
B.8.16 User requirements and interactions with other actors 79
B.8.17 Drawings or diagrams depicting the use case 80
B.9 Use Case 9 behaviour monitoring 82
B.9.1 Level of criticality (See 5.3) 82
B.9.2 Name of use case 82
B.9.3 AAL function and service layer 82
B.9.4 AAL system component composition 82
B.9.5 Version Management 83
B.9.6 Basic Information to Use Case 83
B.9.7 Scope and Objectives of Use Case 83
B.9.8 Narrative of Use Case 84
B.9.9 Actors: people, components, systems, integrated systems, applications and organizations 84

B.9.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 85
B.9.11 Referenced standards and/or standardization committees 85
B.9.12 Relation with other known use cases 85
B.9.13 General remarks 85
B.9.14 Data security and privacy 86
B.9.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 86
B.9.16 User requirements and interactions with other actors 86
B.9.17 Drawings or diagrams depicting the use case 87
B.10 Use Case 10 shopping and nutrition planner 88
B.10.1 Level of criticality (See 5.3) 88
B.10.2 Name of Use Case 89
B.10.3 AAL function and service layer 89
B.10.4 AAL system component composition 89
B.10.5 Version management 89
B.10.6 Basic iInformation to use case 90
B.10.7 Scope and objectives of use case 90
B.10.8 Narrative of use case 91
B.10.9 Actors: people, components, systems, integrated systems, applications and organizations 91
B.10.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 91
B.10.11 Referenced standards and/or standardization committees 92
B.10.12 Relation with other known use cases 92
B.10.13 General remarks 92
B.10.14 Data security and privacy 92
B.10.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 92
B.10.16 User requirements and interactions with other actors 92
B.10.17 Drawings or diagrams depicting the use case 93
B.11 Use Case 11 intelligent lighting fixtures 94
B.11.1 Level of criticality (See 5.3) 94
B.11.2 Name of use case 94
B.11.3 AAL function and service layer 94
B.11.4 AAL system component composition 95
B.11.5 Version management 95
B.11.6 Basic iInformation to use case 95
B.11.7 Scope and objectives of use case 95
B.11.8 Narrative of use case 96
B.11.9 Actors: people, components, systems, integrated systems, applications and organizations 97
B.11.10 Issues: legal contracts, legal regulations, constraints and others (including regional regulations) 97
B.11.11 Referenced standards and/or standardization committees 97
B.11.12 Relation with other known use cases 98
B.11.13 General remarks 98
B.11.14 Data security and privacy 98
B.11.15 Conformity aspects (common international assessment methodology/critical requirements) (to be completed by IEC SyC AAL) 98
B.11.16 User requirements and interactions with other actors 98

B.11.17 Drawings or diagrams depicting the use case 99
Annex C (informative) User requirements analysis 103
Annex D (informative) Extraction of user requirements from the 10 representative use cases 108
Bibliography 113

Figure 1 – AAL architecture model 14
Figure 2 – Overview of AAL user domains 17
Figure 3 – AAL use case categories 18
Figure 4 – Relationship between actors 21
Figure 5 – Overview of user requirements 29
Figure 6 – AAL use case classification 30
Figure C.1 – Extraction example of user requirements from UC #1 103
Figure D.1 – Extraction example of user requirements from UC #1(same as Figure C.1) 108
Figure D.2 – Extraction of user requirements from UC #2 108
Figure D.3 – Extraction of user requirements from UC #3 109
Figure D.4 – Extraction of user requirements from UC #4 109
Figure D.5 – Extraction of user requirements from UC #5 110
Figure D.6 – Extraction of user requirements from UC #6 110
Figure D.7 – Extraction of user requirements from UC #7 111
Figure D.8 – Extraction of user requirements from UC #8 111
Figure D.9 – Extraction of user requirements from UC #9 112
Figure D.10 – Extraction of user requirements from UC #10 112

Table 1 – Titles and categories of use cases 22
Table 2 – Categories and functionalities of use cases 28
Table C.1 – Extraction of user requirements from use cases 104
Table C.2 – Allocation to user requirements groups 106
Table C.3 – Mapping of user requirements groups by UC categories and Figure 5 107

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ACTIVE ASSISTED LIVING (AAL) USE CASES

FOREWORD

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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