TECHNICAL
SPECIFICATION

AMENDMENT 1

Active assisted living (AAL) use cases

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FOREWORD

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Amendment 1 to IEC 63134:2020 has been prepared by IEC SyC AAL: Systems Committee on Active Assisted Living.

The text of this Amendment is based on the following documents:

Draft	Report on voting
SyCAAL/262/DTS	SyCAAL/283/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 Amendment 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- withdrawn,

- replaced by a revised edition, or

- amended.

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6   Use case analysis

6.2   Overview and representative use cases

6.2.1   General

Replace the first paragraph with the following text:

IEC SyC AAL has collected more than 50 use cases. Titles and short descriptions of the use cases are listed in Table 1. The representative use cases are included in Annex B. An additional list of the use cases, which is regularly updated, is available under the supporting documents link: https://www.iec.ch/sycaal/supportingdocuments. Further use cases have been added and also the use case template has been revised (see Annex E).

Renumber the existing NOTE as "NOTE 2" and add the following NOTE 1 after the first paragraph:

NOTE 1   It is possible that relevant standards, regional laws and regulations, as well as liaisons are missing from the original use case descriptions, and are being considered in the current SyC AAL document under consideration on a use case standards inventory and mapping.

Replace existing Table 1 with the following Table 1:

Table 1 – Updated titles and categories of use cases

Use case number	Title of use case	Level of criticality (major, moderate, minor)	Use case category				
			1	2	3	4	5
1	Personal health check	Moderate	X		X	X	X
2	Advanced medication monitoring (AMM)	Major	X			X	
3	Enable social interaction with care providers	Moderate	X	X		X	X
4	Social interaction with smart TV	Minor	X	X			X
5	Smart wheeled walker – Guidance to return home	Major			X		
6	Improve communication between user and equipment by ETA (enhanced terminal accessibility)	Moderate			X		
7	Healthcare in the senior citizens' welfare centre	Major				X	X

Use case number	Title of use case	Level of criticality (major, moderate, minor)	Use case category				
			1	2	3	4	5
8	Personal trainer	Minor	X			X	
9	Behaviour monitoring	Major	X			X	X
10	Shopping and nutrition planner	Minor					X
11	Intelligent lighting fixtures	Major					X
12	Remote health monitoring / fall detection	Moderate	X				X
13	Telemonitoring	Major	X			X	X
14	Acquired brain injury – at-home alarm support	Major					
15	Objective remote health monitoring	Major	X			X	X
16	Query sensors and switches for status [different template]	Moderate					X
17	Remotely monitor Parkinson's patient to prevent falls and manage medication titration	Major	X			X	
18	Continuous blood glucose monitoring with remote assistance	Major	X			X	
19	Enable the upload of measurement data on the WAN interface	Major	X			X	X
20	Controlled information sharing	Major	X				X
21	Patient reported outcomes measures (PROMS)	Major	X			X	X
22	Transmitting questions and related answer response/selection, or instructional material, in a telemonitoring system via WAN-IF	Moderate	X			X	X
23	Epilepsy detection/acquired brain injury – at-home alarm support	Major	X				X
24	Fall detection functional neurological disorder – at-home alarm support	Major			X	X	X
25	U-home smart solutions for the elderly care community	Major			X	X	X
26	Lifestyle reassurance management of activities of daily living (ADL)	Major	X			X	X
27	Privacy, data protection, information security related to AAL	Major	X			X	X
28	Information reliability and device and patient authenticity	Major	X			X	X
29	Building-integrated notification system	Major	X	X		X	X
30	Standardized data exchange of regular medical check-up record	Moderate	X			X	X
31	Mobility assistant	Major	X		X		X
32	Calendar service	Major				X	X
33	52-year-old with multiple health conditions – At-home medication and alarm support	Moderate	X			X	
34	Environmental health monitoring and alarms at work	Major	X			X	
35	Home alarm and service provider – example of alarm activation response	Major					X
36	One-stop emergency service using Lifetag	Major	X			X	

Use case number	Title of use case	Level of criticality (major, moderate, minor)	Use case category				
			1	2	3	4	5
37	Heat stroke prevention system in home	Major					X
38	Air bag system in stairway	Major					X
39	Bathtub drowning prevention system	Major				X	
40	Overturn detection and alert system for home garden	Major					X
41	Minor user mistakes lead to undesirable results	Major					X
42	Use of general equipment leads to malfunction of the system	Major					X
43	Home assistant robot	Minor	X			X	
44	AAL exoskeleton robot	Major	X		X		X
45	AAL care service provided by trained working person	Moderate	X			X	X
46	Accessible TV with IPTV based on ITU-T H.702	Minor					X
47	Real-time communication for the disabled	Minor		X		X	X
48	Corona-blue: Smart mobile healthcare app ("Psychological Quarantine")	Minor				X	X
49	"Community Treatment Center" model for Covid-19 for mild cases	Major				X	X
50	An authentication error due to unintended interactions / face authentication system and mist spraying system	Major					X
51	An unexpected lock out of a person due to shutter closing / automatic laundry drying system and shutter system in a house	Major					X
52	An unintended collision / mobile kitchen and automatic robot cleaner	Minor					X
53	An unintended functional interference / high-performance smart speaker and automatic robot cleaner	Minor					X
54	A fire due to unintended interferences / electric stool robot and electric heater	Major					X

Add the following new annex:

Annex E
(informative)

Updated AAL use case template
(this updated version 2 to be used for new use cases)

E.1 Description of the use case

E.1.1 Name of use case

ID	Name of use case

E.1.2 Version management

Changes / Version	Date	Name Author(s) or Committee	Approval status draft, for comments, for voting, final

E.1.3 Scope and objectives of use case

Scope and objectives of use case

E.1.4 Level of criticality (see 5.3)

Level of criticality	
☐	Major
☐	Moderate
☐	Minor

E.1.5 AAL level(s) of assistance (see 5.4)

AAL levels of assistance (select one or more)	
☐	Level 0: independent
☐	Level 1: some assistance
☐	Level 2: assistance with IADL
☐	Level 3: assistance with ADL

E.1.6 Narrative of use case – Short description

Short description – maximum 3 sentences

E.1.7   Use case category and geographic context

Use case categories	Context of use
1. (Self-)management of daily life activities at home 2. Health and wellness 3. Mobility 4. Social interaction 5. Prevention and management of chronic long-term conditions See 5.5	See 5.6

E.1.8   Basic information on the use case

Source(s) / Literature	Link	Conditions (limitations) of use

Maturity of use case – in business operation, realized in demonstration project, realized in R&D, in preparation, visionary

Generic, regional or national relation

View – Technical / Business /…

Health indications

Threshold conditions

Further keywords for classification

E.2   Components of the use case

E.2.1   Narrative of use case – Complete description

Complete description

E.2.2   Actors: persons, technical components, and organizations (see 5.8)

Actor name	Actor type (person, technical, organization)	Actor role	Actor description

E.2.3 AAL system component composition (see 5.7)

AAL system components (complete rows as appropriate)	
AAL devices	
AAL gateway	
AAL application and service(s)	
AAL (platform) backend system	
AAL information systems	
Other information systems	

E.2.4 Issues: legal contracts, legal regulations, constraints, and others (including regional regulations)

Issue – specific ones	Impact of issue on use case	Reference – law, standard, other

NOTE   The information in E.2.4 is not all-inclusive. Some relevant information is available under the supporting documents: https://www.iec.ch/sycaal/supportingdocuments.

E.2.5 Referenced International Standards and/or standardization committees

Relevant standardization committees	Standards have to be considered in the use case	Standard status

NOTE   The information in E.2.5 is not all-inclusive. Some relevant information is available under the supporting documents: https://www.iec.ch/sycaal/supportingdocuments.

E.2.6 Relation with other known use cases

Known use case	Source	Use case status

E.2.7 General remarks

General remarks

E.2.8 Data security considerations

Data security considerations

E.2.9 Data privacy considerations

Data privacy considerations