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Internet of things (IoT) - Digital twin – Use cases

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CONTENTS

FOREWORD 5
INTRODUCTION 6
1 Scope 7
2 Normative references 7
3 Terms and definitions 7
4 Abbreviated terms 9
5 Applications 9
5.1 Application domains 9
5.2 Life cycle stage coverage 10
6 Use cases 10
6.1 Overview 10
6.2 Properties 10
6.3 Basic statistics 11
6.3.1 Use cases by application domain 11
6.3.2 Use cases by status of life cycle 13
7 Use case summaries 14
Annex A (informative) Use case template 16
A.1 General 16
A.2 Description of use case 16
A.2.1 Name of use case 16
A.2.2 Digital twin application area or context of use 16
A.2.3 Version management 17
A.2.4 Basic information to use case 17
A.2.5 Scope of use case (bullet points) 18
A.2.6 Objectives of use case (bullet points) 18
A.2.7 Narrative of use case 18
A.2.8 Entities which need to be modelled as digital entities in use case 19
A.2.9 Actors: people, organizations or systems 19
A.2.10 Life cycle of digital twin system in use case 20
A.2.11 Key performance indicators (KPIs) of use case 21
A.2.12 Digital infrastructures 21
A.2.13 Referenced standards and standardization committees (optional) 22
A.2.14 Referenced papers or patent (optional) 22
A.2.15 Relation with other known use cases, for example common requirements (optional) 22
A.2.16 General remarks (optional) 22
A.2.17 Challenges and issues (optional) 22
A.2.18 Data security, privacy and trustworthiness (optional) 23
A.2.19 User requirements and interactions with other actors (optional) 23
A.3 Drawings or diagrams depicting the use case 23
A.3.1 Drawing of use case 23
A.3.2 Data flow diagram of use case (optional) 23
A.3.3 Sequence diagram(s) of use case (optional) 23
A.3.4 Deployment diagram(s) of use case (optional) 24
A.3.5 Others (optional) 24
Annex B (informative) Collected use cases 25

B.1 Smart building – Smart building operation based on digital twins 25
B.1.1 Description of use case 25
B.1.2 Drawings or diagrams depicting the use case 37
B.2 Industrial smart park – Digital twin based industrial smart park design and construction 39
B.2.1 Description of use case 39
B.2.2 Drawings or diagrams depicting the use case 46
B.3 Smart city – Digital twin based smart city management system 49
B.3.1 Description of use case 49
B.3.2 Drawings or diagrams depicting the use case 59
B.4 Smart energy – Construction and application of digital twins for a large oil and gas processing facility 61
B.4.1 Description of use case 61
B.4.2 Drawings or diagrams depicting the use case 73
B.5 Smart building – Monitoring of water 74
B.5.1 Description of use case 74
B.5.2 Drawings or diagrams depicting the use case 82
B.6 Smart Power Grid – Smart grid operation based on a digital twin 82
B.6.1 Description of use case 82
B.6.2 Drawings or diagrams depicting the use case 90
B.7 Smart construction life cycle – Construction-phase digital twin model 91
B.7.1 Description of use case 91
B.7.2 Drawings or diagrams depicting the use case 104
B.8 Smart building – Residential explicit demand response – Consumer behavioural digital twin for energy demand prediction 106
B.8.1 Description of use case 106
B.8.2 Drawings or diagrams depicting the use case 119
B.9 Smart city - Greater Hobart Digital Twin 120
B.9.1 Description of use case 120
B.9.2 Drawings or diagrams depicting the use case 129
B.10 Smart city - NSW Spatial Digital Twin 130
B.10.1 Description of use case 130
B.10.2 Drawings or diagrams depicting the use case 138
B.11 Transport - Sydney Trains Engineering and Maintenance Digital Twin 138
B.11.1 Description of use case 138
B.11.2 Drawings or diagrams depicting the use case 145
B.12 Transport - TfNSW Infrastructure Delivery Digital Twin 148
B.12.1 Description of use case 148
B.12.2 Drawings or diagrams depicting the use case 155
B.13 Smart energy – From grid planning to grid operation and maintenance, based on grid digital twin(s) 157
B.13.1 Description of use case 157
B.13.2 Drawings or diagrams depicting the use case 164
B.14 Smart energy – Electrical field level subsystem digital twin, as the basis for its specification, commissioning, operation and maintenance 165
B.14.1 Description of use case 165
B.14.2 Drawings or diagrams depicting the use case 174
Bibliography 177

Figure 1 – Distribution of use cases collected in Annex B by application domains 12

Figure 2 – Statistics on adopted key technologies from use cases in JTC 1/AG 11 report 13
Figure B.1 – Geometric analysis of safety prevention 94
Figure B.2 – Identification of close proximity events between heavy machinery 95
Figure B.3 – Safety training scenario 95
Figure B.4 – Segmented construction components after voxel space point matching 96
Figure B.5 – Sample defect predictions 96
Figure B.6 – On-site defect visualization, defect confirmation, and addition of remedial work 97
Figure B.7 – Use case diagram: before construction starts 104
Figure B.8 – Use case diagram: during construction 105

Table 1 – List of use cases in JTC 1/AG 11 report 12
Table 2 – List of use cases by status of life cycle 14
Table 3 – List of use cases 14
Table A.1 – Description of some qualitative indicators 21

INTERNET OF THINGS (IoT) – DIGITAL TWIN – USE CASES

FOREWORD

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ISO/IEC TR 30172 has been prepared by subcommittee 41: Internet of Things and Digital Twin, of ISO/IEC joint technical committee 1: Information technology. It is Technical Report.

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Draft	Report on voting
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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 Technical Report is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1, available at www.iec.ch/members_experts/refdocs and www.iso.org/directives.

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INTRODUCTION

This document provides use cases of digital twin applications in various domains using the template modified from IEC 62559-2 use case template and ISO/IEC TR 22417 use case template. Use case templates used in ISO/IEC JTC 1/AG 8, ISO/IEC JTC 1/AG 11 and ISO/IEC JTC 1/SC 41/AG 25 are also considered for the template in this document.

The use case template includes two parts: Description of use case; Drawings or diagrams depicting the use case. To collect use cases, the first step is to identify application domains of digital twin (DTw) systems and to provide a use case template. Contributors were requested to submit use cases using the provided template.

For improving the quality of the use case description, a guidance is provided to contributors. The guidance includes DTw concepts and reference models for preparing use cases.

By investigating use cases, it is possible to find the new technical requirements from the market, accelerating the transformation of science and technology achievements.

The use case template helps to group and categorize the use cases according to the identified application domains. Readers of this document can find use cases that relate to the desired application domain and can find original submissions of use cases in Annex A, which includes all submissions of use cases.

INTERNET OF THINGS (IoT) – DIGITAL TWIN – USE CASES

1 Scope

This document provides a collection of representative use cases of digital twin applications in a variety of domains, for example, smart manufacturing and smart cities.

This document is applicable to all types of organization (for example, commercial enterprises, government agencies, and not-for-profit organizations).

2 Normative references

There are no normative references in this document.