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Multimedia systems and equipment for metaverse -
Part 3: Gap analysis

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CONTENTS

FOREWORD 4
INTRODUCTION 6
1 Scope 7
2 Normative references 7
3 Terms and definitions 7
3.1 Terms and definitions 7
3.2 Abbreviated terms 7
4 Analysis of existing standards on metaverse systems and equipment 8
4.1 Consideration for analysis 8
4.1.1 General 8
4.1.2 Content 8
4.1.3 Platform 9
4.1.4 Network 9
4.1.5 Device 9
4.1.6 Standard Development Organizations (SDOs) for analysis 9
4.2 Content 10
4.2.1 International Organization for Standardization (ISO) 10
4.2.2 ISO/IEC Joint Technical Committee (JTC) 1 11
4.2.3 International Telecommunication Union, Telecommunication Standardization Sector (ITU-T) 14
4.2.4 Institute of Electrical and Electronics Engineers, IEEE Standards Association (IEEE SA) 15
4.3 Platform 17
4.3.1 ISO/IEC JTC 1 17
4.3.2 ITU-T 18
4.4 Network 19
4.4.1 General 19
4.4.2 ISO 20
4.4.3 ITU-T 21
4.4.4 IEEE SA 21
4.4.5 Internet engineering task force (IETF) 22
4.5 Device 23
4.5.1 International Electrotechnical Commission (IEC) 23
4.5.2 ISO 24
4.5.3 ISO/IEC JTC 1 25
4.5.4 ITU-T 27
4.5.5 IEEE SA 27
4.6 General 27
4.6.1 ITU-T 27
4.6.2 IEEE SA 28
4.7 Summary 29
5 Analysis of metaverse services/platform in industry 30
5.1 Functional features for analysis of metaverse platforms 30
5.2 Service type 31
5.2.1 Game 31
5.2.2 Social media and lifelogging 31

5.2.3 Customer support services 31
5.2.4 Education and counselling 32
5.2.5 Workspace and collaboration 32
5.3 Immersive 32
5.3.1 General 32
5.3.2 eXtended reality (XR) 33
5.3.3 Augmented reality (AR) 33
5.3.4 Mixed reality (MR) 33
5.3.5 Virtual reality (VR) 34
5.3.6 Binaural audio 34
5.4 Interoperability 34
5.4.1 General 34
5.4.2 Video coding and modelling 34
5.4.3 Open API 35
5.4.4 Software development kit (SDK) 35
5.4.5 Blockchain/NFT 35
5.5 Asset management 35
5.5.1 Asset creating tools 35
5.5.2 Asset trading system 36
5.6 Analysis and comparison 36
6 Work items for standardization in IEC Technical Committee 100 37
6.1 Observations 37
6.2 Candidate work items for standardization 40
Bibliography 42

Figure 1 – Classification of standards on metaverse by many SDOs 10
Figure 2 – Categorized metaverse standards based on CPND 29

Table 1 – Metaverse Content classification standards developed by ISO 11
Table 2 – Metaverse Content classification standards developed by JTC1 13
Table 3 – ITU-T FG-MV structure 14
Table 4 – Metaverse Content classification standards developed by ITU-T 15
Table 5 – Metaverse Content classification standards developed by IEEE SA 16
Table 6 – Metaverse Platform classification standards developed by JTC 1 18
Table 7 – Metaverse Platform classification standards developed by ITU-T 19
Table 8 – Metaverse Network classification standards developed by ISO 20
Table 9 – Metaverse Network classification standards developed by ITU-T 21
Table 10 – Metaverse Network classification standards developed by IEEE SA 21
Table 11 – Metaverse Network classification standards developed by IETF 22
Table 12 – Metaverse Device classification standards developed by IEC 24
Table 13 – Metaverse Device classification standards developed by ISO 25
Table 14 – Metaverse Device classification standards developed by JTC 1 26
Table 15 – Metaverse Device classification standards developed by ITU-T 27
Table 16 – Metaverse Device classification standards developed by IEEE SA 27
Table 17– Metaverse General classification standards developed by ITU-T 28

Table 18 – Metaverse General classification standards developed by IEEE SA.....29
Table 19 – Summary of distinctive feature of metaverse 31
Table 20 – Existing metaverse platforms categorized according to distinctive features 37
Table 21 – Status of metaverse standards development within IEC TC 100 Working Groups.....38
Table 22 – Work items for standardization in IEC TC 100 40

INTERNATIONAL ELECTROTECHNICAL COMMISSION

Multimedia systems and equipment for metaverse - Part 3: Gap analysis

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IEC TR 63614-3 has been prepared by IEC technical committee TC 100: Audio, video and multimedia systems and equipment. It is a Technical Report.

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

Draft	Report on voting
100/4408/DTR	100/4437/RVDTR

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.

A list of all parts in the IEC 63614 series, published under the general title *Multimedia systems and equipment for metaverse*, can be found on the IEC website.

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.

INTRODUCTION

The term "metaverse" originated from the science fiction novel "Snow Crash," combining "meta" and "universe." It refers to a digital-based virtual world that extends the boundaries of the real world, allowing users to engage in various activities, including imagination and fantasy, within the virtual space. In the viewpoint of content/platform/network/device, the metaverse can also be defined as a technology in which a user (using a metaverse device) can access (through network) a virtual space (a metaverse platform) and experience all activities (metaverse contents) through an avatar.

At the time of writing, the global industrial metaverse market is experiencing significant growth. It is noted that the metaverse can be implemented and realized with multimedia systems and equipment. Accordingly, there is a crucial need for standardization on the subject of metaverse in IEC TC 100 as a leading standardization group in the area of multimedia systems and equipment.

The IEC 63614 series consists of the following parts:

– Part 1: General;
– Part 2: Classification; and
– Part 3: Gap analysis.

IEC TR 63614-1 [1] describes general considerations to be taken for standardization on multimedia systems and equipment for metaverse.

IEC TS 63614-2[2] describes the classification of metaverse in terms of C (contents), P (platform), N (network), D (device).

IEC TR 63614-3 (this document) describes the gap analysis for the existing standards on metaverse and the services/products in the metaverse-related industry.

[1] Under preparation. Stage at time of publication: IEC DTR 63614-1:2025

[2] Under consideration.

1 Scope

This document describes the gap analysis for metaverse systems and equipment, including examination of existing standards and services/applications within the metaverse domain. The analysis includes a comprehensive review of developments in various Standards Development Organizations (SDOs) and the relevant industry.

2 Normative references

There are no normative references in this document.

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46 Under consideration.

47 Under consideration.

48 Under consideration.

49 Under preparation. Stage at time of publication: IEC DTR 63610:2025.

50 Under consideration.

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51 Under consideration.

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