



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.4066

(09/2020)

SERIES Q: SWITCHING AND SIGNALLING, AND
ASSOCIATED MEASUREMENTS AND TESTS

Testing specifications – Testing specifications for IMT-
2020 and IoT

Testing procedures of Augmented Reality applications

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Recommendation ITU-T Q.4066

Testing procedures of Augmented Reality applications

Summary

Augmented reality (AR) is a collection of new technologies that perform the function of displaying digital information to a user through special devices (smartphone, AR glasses, projectors, etc.) allowing data to be displayed in visual (3D objects, video, images, etc.), audio or text format alongside real-world objects. Besides, augmented reality offers the possibility of physical objects and virtual entities, which can make additional delays in the process of data transformation. Because testing procedures for augmented reality are significantly different from traditional applications, this Recommendation defines approaches for testing for various applications of AR.

Keywords

Q.4066,Q,4066

Table of Contents

Table of Contents	2
1 Scope.....	3
2 References.....	3
3 Definitions	3
3.1 Terms defined elsewhere	3
3.2 Terms defined in this Recommendation.....	3
4 Abbreviations and acronyms	3
5 Conventions	4
6 Classification of augmented reality applications	4
7 Augmented reality application testing model	5
8 Test specifications for testing various AR applications	5
8.1 General procedure for every test scenario	5
8.2 Network parameters measurement (NPM) test	6
8.3 Server high-load (SHL) test.....	7
8.4 Augmented reality device performance (ARDP) test.....	8
8.5 Identification and authentication (IA) test.....	9
APPENDIX I Valuation models of AR applications network parameters testing.....	11
Bibliography.....	12

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Testing procedures of Augmented Reality applications

1 Scope

This Recommendation describes the procedure for testing augmented reality (AR) applications. In particular, it contains:

- Classification of AR applications
- General architecture of the AR application testing model;
- Test specifications for testing various AR applications.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T J.301] Recommendation ITU-T J.301 (01/2014), *Requirements for augmented reality smart television systems*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

- 3.1.1. augmented content** [ITU-T J.301]: A binary object, such as 2D images, 3D animated models or audio/video streaming files, to be augmented into a predefined augmentation region.
- 3.1.2. augmented content provider** [ITU-T J.301]: An entity allowed to develop and provide augmented content.
- 3.1.3. augmented reality (AR)** [ITU-T J.301]: A type of mixed reality where graphical elements are integrated into the real world in order to enhance user experience and enrich information.

3.2 Terms defined in this Recommendation

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

AR	Augmented Reality
OS	Operating System
PC	Personal Computer
QoE	Quality of Experience
QoS	Quality of Service
2D	2 Dimension
3D	3 Dimension