



Enabler Release Definition for Mobile Augmented Reality Enabler (MobAR)

Approved Version 1.0 – 02 Feb 2016

Open Mobile Alliance
OMA-ERELED-MobAR-V1_0-20160202-A

Use of this document is subject to all of the terms and conditions of the Use Agreement located at <http://www.openmobilealliance.org/UseAgreement.html>.

Unless this document is clearly designated as an approved specification, this document is a work in process, is not an approved Open Mobile Alliance™ specification, and is subject to revision or removal without notice.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. Information contained in this document may be used, at your sole risk, for any purposes. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance. The Open Mobile Alliance authorizes you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services. The Open Mobile Alliance assumes no responsibility for errors or omissions in this document.

Each Open Mobile Alliance member has agreed to use reasonable endeavors to inform the Open Mobile Alliance in a timely manner of Essential IPR as it becomes aware that the Essential IPR is related to the prepared or published specification. However, the members do not have an obligation to conduct IPR searches. The declared Essential IPR is publicly available to members and non-members of the Open Mobile Alliance and may be found on the “OMA IPR Declarations” list at <http://www.openmobilealliance.org/ipr.html>. The Open Mobile Alliance has not conducted an independent IPR review of this document and the information contained herein, and makes no representations or warranties regarding third party IPR, including without limitation patents, copyrights or trade secret rights. This document may contain inventions for which you must obtain licenses from third parties before making, using or selling the inventions. Defined terms above are set forth in the schedule to the Open Mobile Alliance Application Form.

NO REPRESENTATIONS OR WARRANTIES (WHETHER EXPRESS OR IMPLIED) ARE MADE BY THE OPEN MOBILE ALLIANCE OR ANY OPEN MOBILE ALLIANCE MEMBER OR ITS AFFILIATES REGARDING ANY OF THE IPR'S REPRESENTED ON THE “OMA IPR DECLARATIONS” LIST, INCLUDING, BUT NOT LIMITED TO THE ACCURACY, COMPLETENESS, VALIDITY OR RELEVANCE OF THE INFORMATION OR WHETHER OR NOT SUCH RIGHTS ARE ESSENTIAL OR NON-ESSENTIAL.

THE OPEN MOBILE ALLIANCE IS NOT LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OF DOCUMENTS AND THE INFORMATION CONTAINED IN THE DOCUMENTS.

© 2016 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms set forth above.

Contents

1. SCOPE	4
2. REFERENCES	5
2.1 NORMATIVE REFERENCES	5
2.2 INFORMATIVE REFERENCES	5
3. TERMINOLOGY AND CONVENTIONS	6
3.1 CONVENTIONS	6
3.2 DEFINITIONS	6
3.3 ABBREVIATIONS	6
4. RELEASE VERSION OVERVIEW	7
4.1 VERSION 1.0 FUNCTIONALITY	7
5. DOCUMENT LISTING FOR MOBAR 1.0	8
6. OMNA CONSIDERATIONS	9
7. CONFORMANCE REQUIREMENTS NOTATION DETAILS	10
8. ERDEF FOR MOBAR 1.0 – CLIENT REQUIREMENTS	11
9. ERDEF FOR MOBAR 1.0 – SERVER REQUIREMENTS	12
APPENDIX A. CHANGE HISTORY (INFORMATIVE)	13
A.1 APPROVED VERSION HISTORY	13

Tables

Table 1: Listing of Documents in MobAR 1.0 Enabler	8
Table 2: ERDEF for MobAR 1.0 Client-side Requirements	11
Table 3: ERDEF for MobAR 1.0 Server-side Requirements	12

1. Scope

The scope of this document is limited to the Enabler Release Definition of Mobile Augmented Reality (MobAR) 1.0 according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1 Normative References

- [MobAR-ER] “Mobile Augmented Reality Enabler”, Open Mobile Alliance™, OMA-ER-MobAR-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MobAR-TS] “Mobile Augmented Reality Technical Specification”, Open Mobile Alliance™, OMA-TS-MobAR-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, [URL:http://www.ietf.org/rfc/rfc2119.txt](http://www.ietf.org/rfc/rfc2119.txt)
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version 2.9, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_9, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)

3. Terminology and Conventions

3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope”, “Release Version Overview” and “Conformance Requirements Notation Details”, are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 7 and 8 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [SCR RULES].

3.2 Definitions

Enabler Release	Collection of specifications that combined together form an enabler for a service area, e.g. a download enabler, a browsing enabler, a messaging enabler, a location enabler, etc. The specifications that are forming an enabler should combined fulfil a number of related market requirements.
AR Content	Any kind of multimedia object which can be used to augment/enhance the user’s sensory perception of the world such as: picture, video, text, 3D models, audio. Typically the AR Content relates to an AR Target
AR Target	Any entity of the real world such as POI, product, person, vehicle, etc. that can have associated AR Content.
MobAR Client	The MobAR Client is the device side functional component of the MobAR Enabler
MobAR Server	The MobAR Server is the network side functional component of the MobAR Enabler

3.3 Abbreviations

API	Application Programming Interface
AR	Augmented Reality
ER	Enabler Release
ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
MobAR	Mobile Augmented Reality
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
SCR	Static Conformance Requirements
URN	Uniform Resource Name

4. Release Version Overview

The MobAR Enabler provides an overall framework (mechanisms, functionalities, ...) to enable mobile AR services.

4.1 Version 1.0 Functionality

The version 1.0 of the MobAR Enabler defines an overall framework that enables mobile Augmented Reality services.

The core functionalities exposed by the MobAR Enabler include:

- AR Content and its management
- User interactivity and metrics
- MobAR Enabler components functionalities
- Security and privacy aspects

5. Document Listing for MobAR 1.0

This section is normative.

Doc Ref	Permanent Document Reference	Description
Enabler Release		
[MobAR-ER]	OMA-ER-MobAR- V1_0-20160202-A	Requirements and architecture of the MobAR enabler.
Technical Specification		
[MobAR-TS]	OMA-TS-MobAR- V1_0-20160202-A	Technical specification of the MobAR enabler.
Supporting File		
[MobAR-XSD]	OMA-SUP-XSD_MobAR-V1_0-20160202-A	XML schema of the structure and data types for the MobAR enabler.

Table 1: Listing of Documents in MobAR 1.0 Enabler

6. OMNA Considerations

MobAR 1.0 includes the following OMNA items:

1. Push-Application ID
 - a. x-oma-application:mobar.ua (*new in MobAR 1.0*)
2. XML Schema Namespace
 - a. urn:oma:xml:mobar:1.0 (*new in MobAR 1.0*)

7. Conformance Requirements Notation Details

This section is informative.

The tables in following chapters use the following notation:

- Item:** Entry in this column **MUST** be a valid `ScrItem` according to [SCRRULES].
- Feature/Application:** Entry in this column **SHOULD** be a short descriptive label to the **Item** in question.
- Requirement:** Expression in the column **MUST** be a valid `TerminalExpression` according to [SCRRULES] and it **MUST** accurately reflect the architectural requirement of the **Item** in question.

8. ERDEF for MobAR 1.0 – Client Requirements

This section is normative.

Item	Feature / Application	Requirement
OMA-ERDEF-MobAR-C-001-M	MobAR Client	

Table 2: ERDEF for MobAR 1.0 Client-side Requirements

9. ERDEF for MobAR 1.0 – Server Requirements

This section is normative.

Item	Feature / Application	Requirement
OMA-ERDEF-MobAR-S-001-M	MobAR Server	

Table 3: ERDEF for MobAR 1.0 Server-side Requirements

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-ERELED-MobAR-V1_0-20160202-A	02 Feb 2016	Status changed to Approved by TP TP Ref # OMA-TP-2016-0027-INP_MobAR_V1_0_ERP_for_final_Approval