



Enabler Release Definition for Rich Media Environment

Candidate Version 1.0 – 14 Oct 2008

Open Mobile Alliance
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1. Scope

The scope of this document is limited to the Enabler Release Definition of Rich Media Environment (RME) according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1 Normative References

- [ESMP11] “ECMAScript Mobile Profile”, Version 1.1, Open Mobile Alliance™, OMA-TS-ESMP-V1_1
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, URL: <http://www.ietf.org/rfc/rfc2119.txt>
- [RME_AD] “Rich Media Environment Architecture”, Open Mobile Alliance™, OMA-AD_RME-V1_0, URL: <http://www.openmobilealliance.org/>
- [RME_RD] “Rich Media Environment Requirements”, Open Mobile Alliance™, OMA-RD_RME-V1_0, URL: <http://www.openmobilealliance.org/>
- [RME_TS] “Rich Media Environment Technical Specification”, Open Mobile Alliance™, OMA-TS_RME-V1_0, URL: <http://www.openmobilealliance.org/>
- [SCR RULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL: <http://www.openmobilealliance.org/>
- [SVGMD] “SVG for the Mobile Domain”, Open Mobile Alliance™, OMA-TS-SVG_Mobile-V1_0, URL: <http://www.openmobilealliance.org/>

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version 1.4, Open Mobile Alliance™, OMA-ORG-Dictionary-V1_4, URL: <http://www.openmobilealliance.org/>
- [RME_WP] “Rich Media Environment White Paper”, Open Mobile Alliance™, OMA-WP-Rich_Media_Environment, URL: <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 8 and 9 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.

Minimum Functionality Description Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
IANA	Internet Assigned Numbers Authority
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
RME	Rich Media Environment
SVG	Scalable Vector Graphics

4. Release Version Overview

This document outlines the Enabler Release Definition for the Rich Media enabler version 1.0 and the respective conformance requirements for clients and servers claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

A rich graphical and media experience is becoming a requirement for mobile applications. The Rich Media Environment (RME) provides this functionality by integrating the Scalable Vector Graphics (SVG) language [SVGMD] for graphical object creation, ECMAScript [ESMP11] for script support, with a packaging and transport capable of combining multiple streams of media input from multiple sources. These features add a new graphical dimension to internet applications.

RME provides the language and transport mechanism that enables distribution and display, on mobile devices, of RME content. RME content consists of scenes of visual objects, such as video, images, animation and text, and audio objects that are composed together. Compared to more traditional content consisting of only one or maybe two types of object, RME will allow creation a more user friendly and compelling experience. In general, it will give the user a richer experience when accessing a service.

The RME enabler defines flexible methods for accessing RME data. RME data can be stored locally on the device, downloaded in a regular download request or streamed to the device, depending on the characteristics of the service being created with RME:

Typical services created with RME are mobile TV clients, dynamic application user interfaces, multi-player gaming, and on-device portals. Such applications or solutions will be built of an RME system consisting of an RME client and an RME server. The RME Client resides on the mobile terminal and is the display engine providing the capability to display RME data to the user, handle updates to the scene from the server and handle the user interaction. The server is the source of data and provides RME content to the client.

RME defines a method of client/server communication that allows the server to push out information to the client. This allows the displayed data to be continuously updated. To save communications bandwidth the updates only contain the changes to the scene, allowing parts to be removed and added while keeping other parts, thereby saving both bandwidth and device processing power. It is, however, also possible to replace the entire scene with a new one, if so is desired.

4.1 Version 1.0 Functionality

The RME enabler does not have any planned phased releases. All functionality that is required by the requirements defined in [RME_RD] and detailed in the architecture in [RME_AD] are part of version 1.0 as specified in the technical specification [RME_TS].

5. Document Listing for RME

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[RME_RD]	OMA-RD-Rich-Media-Environment-V1_0-20050923-C	Requirement Document for RME Enabler
Architecture Document		
[RME_AD]	OMA-AD-RME-V1_0_0-20081014-C	Architecture Document for RME Enabler
Technical Specifications		
[RME_TS]	OMA-TS-RME-V1_0-20081014-C	RME Specification
White Paper		
[RME_WP]	OMA-WP-Rich_Media_Environment-20081014-C	White Paper for RME

Table 1: Listing of Documents in RME Enabler

6. OMNA Considerations

The RME enabler defines XML elements and attributes in the technical specification. All XML that is defined in [RME_TS] is in the namespace <http://www.openmobilealliance.org/richmedia>. These XML data are delivered with the following MIME types which should be registered with both IANA and OMNA:

- RME data that is streamed to the enabler is streamed with the MIME type “video/richmedia+xml”.
- The RME enabler defines the MIME type “application/richmediacommand+xml” for download of rich media updates when using HTTP.
- The RME enabler defines a MIME type “application/richmedia+xml” for initial scenes.

An RME document containing a scene command groups is recommended to be stored with the file extension “scg” as a matter of best practice.

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 RME - Client Requirements

This section is normative.

Item	Feature / Application	Requirement
OMA-ERDEF-RME-C-001-M	RME Client	SVGMD:MCF AND ESMP:MCF

Table 2: ERDEF for RME Client-side Requirements

9. ERDEF for RME - Server Requirements

This section is normative.

Item	Feature / Application	Requirement
OMA-ERDEF-RME-S-001-M	RME Server	SVGMD:MCF AND ESMP:MCF

Table 3: ERDEF for RME Server-side Requirements

Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ERELED-RME-V1_0	09 Apr 2008	All	Baseline ERELD
	15-Apr-2008	All	Input of details
	23 Apr 2008	All	Minor Editorials: - References fixed and sorted - Cross-references fixed across ERELD - History Box fixed
	22 Sep 2008	5	Document Listing updated with revised TS further to Consistency Review
Candidate Version: OMA-ERELED-RME-V1_0	14 Oct 2008	All	Status changed to Candidate by TP: OMA-TP-2008-0376- INP_RME_V1_0_ERP_for_Candidate_Approval