



Enabler Release Definition for Download Version 1.0

Draft Version 4-Nov-2002

Open Mobile Alliance
OMA-ERELED-DL-V1_0-20021104-d

This document is considered confidential and may not be disclosed in any manner to any non-member of the Open Mobile Alliance™, unless there has been prior explicit Board approval.

This document is a work in process and is not an approved Open Mobile Alliance™ specification. This document is subject to revision or removal without notice. No part of this document may be used to claim conformance or interoperability with the Open Mobile Alliance specifications.

© 2002, Open Mobile Alliance, Ltd. All rights reserved.

Terms and conditions of use are available from the Open Mobile Alliance™ Web site at <http://www.openmobilealliance.org/documents/copyright.htm>).

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. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance™. The Open Mobile Alliance authorises 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 offered by you.

The Open Mobile Alliance™ assumes no responsibility for errors or omissions in this document. In no event shall the Open Mobile Alliance be liable for any special, indirect or consequential damages or any damages whatsoever arising out of or in connection with the use of this information.

This document is not a Open Mobile Alliance™ specification, is not endorsed by the Open Mobile Alliance and is informative only. This document is subject to revision or removal without notice. No part of this document may be used to claim conformance or interoperability with the Open Mobile Alliance specifications.

Open Mobile Alliance™ members have agreed to use reasonable endeavors to disclose in a timely manner to the Open Mobile Alliance the existence of all intellectual property rights (IPR's) essential to the present document. However, the members do not have an obligation to conduct IPR searches. The information received by the members is publicly available to members and non-members of the Open Mobile Alliance and may be found on the "WAP IPR Declarations" list at <http://www.wapforum.org/what/ipr.htm>. Essential IPR is available for license on the basis set out 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 this "WAP 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.

This document is available online in PDF format at <http://www.openmobilealliance.org/>.

Known problems associated with this document are published at <http://www.openmobilealliance.org/>.

Comments regarding this document can be submitted to the Open Mobile Alliance™ in the manner published at <http://www.openmobilealliance.org/documents.html>

Document History	
OMA-ERELED-DL-V1_0-20021104-d	Current

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. INTRODUCTION.....	7
5. ENABLER RELEASE SPECIFICATION BASELINE.....	8
6. MINIMUM FUNCTIONALITY DESCRIPTION	9
7. CONFORMANCE REQUIREMENTS NOTATION DETAILS.....	10
8. ERDEF FOR DOWNLOAD - CLIENT REQUIREMENTS	11
9. ERDEF FOR DOWNLOAD - SERVER REQUIREMENTS	12
APPENDIX A. CHANGE HISTORY (INFORMATIVE)	13

1. Scope

The scope of this document is limited to the Enabler Release Definition of Download according to OMA Release process and the Enabler Release specification baseline listed in section 5.

This Download Enabler defines application-level protocols and behaviours to provide confirmed content download functionality. It is anticipated that this will be an enabler for billing, to help make premium priced content available to mobile users.

2. References

2.1. Normative References

- [CREQ] “Specification of WAP Conformance Requirements”. Open Mobile Alliance™. WAP-221-CREQ. <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)
- [OTA] “Download OTA”, Open Mobile Alliance™, OMA-Down load-OTA-v1_0, <http://www.openmobilealliance.org/>

2.2. Informative References

- [ARCH] “Download Architecture”, Open Mobile Alliance™, OMA-Download-ARCH-v1_0, <http://www.openmobilealliance.org/>
- [HTTP] “Hypertext Transfer Protocol - HTTP/1.1”, RFC 2616, R. Fielding, et al., June 1999. <http://www.ietf.org/rfc/rfc2616.txt>
- [MIDPOTA] “Over The Air User Initiated Provisioning Recommended Practice”, version 1.0, 2001, SUN Microsystems. <http://java.sun.com>
- [MIDP] “Mobile Information Device Profile”, version 1.0, 2000, SUN Microsystems, <http://java.sun.com/>
- [W-HTTP] “Wireless Application Protocol, Wireless Profiled HTTP”, WAP-229-HTTP, WAP Forum™, March 2001. <http://www.openmobilealliance.org/>
- [WSP] “Wireless Application Protocol, Wireless Session Protocol Specification”, WAP-230-WSP, WAP Forum™, July 2001. <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” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 7 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [CREQ].

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.

MIDlet Download

Refers to the Java™ 2 Micro Edition (J2ME) Mobile Internet Device Profile Over-the-Air User Initiated Provisioning Recommended Practises. This defines the method of downloading and managing the lifecycle of J2ME applications, referred to as MIDlets.

3.3. Abbreviations

ERDEF	Enabler Requirement Definition
ERELED	Enabler Release Document
HTTP	HyperText Transfer Protocol
OMA	Open Mobile Alliance
MIDlet	Java™ MIDP program
MIDP	Mobile Information Device Profile
W-HTTP	Wireless Profiled HTTP
WSP	Wireless Session Protocol

4. Introduction

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

The purpose of OMA Download is to provide a service similar to MIDlet Download [MIDPOTA]. The difference between MIDlet Download and OMA Download is that OMA Download is not designed specifically for the downloading of Java™ MIDlets, or any other specific media type - OMA Download is a general download framework.

OMA Download, just like MIDlet Download, extends Basic HTTP Download with two additional steps:

1. **Before download**, a description of the media object is downloaded. The description is a small file, the *download descriptor*, containing metadata about the *media object* and instructions to the *download agent* in the device, how to download the *media object*.

The *media object* is downloaded using standard Basic HTTP Download.

2. **After download**, a status report is posted to a Web site, indicating the outcome of the download. The user can be directed to a Web location provided in the *download descriptor*.

5. Enabler Release Specification Baseline

The following specifications comprise the Download enabler release:

“Download Architecture Version 1.0” [ARCH]

“Download OTA Version 1.0” [OTA]

6. Minimum Functionality Description

This section is informative.

The minimum functionality for the Download OTA specification includes:

- support for separate delivery of the download descriptor and media object
- delivery of the installation notification indicating success or failure if requested by the content provider
- preventing access to the media object:
 - if the download process is aborted
 - if a “well-intentioned” installation notification attempt cannot be made
- support for installation parameters
- support for HTTP ([W-HTTP], or [WSP]) at a minimum for delivering the download descriptor, media object, and installation notification

The Download OTA specification also defines the following optional functionality:

- support for co-delivery of the download descriptor and media object

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 [CREQ].

Feature/Application:

Entry in this column **SHOULD** be a short descriptive label to the **Item** in question.

Status:

Entry in this column **MUST** accurately reflect the architectural status of the **Item** in question.

- M means the **Item** is mandatory for the class
- O means the **Item** is optional for the class
- NA means the **Item** is not applicable for the class

Requirement:

Expression in the column **MUST** be a valid `TerminalExpression` according to [CREQ] and it **MUST** accurately reflect the architectural requirement of the **Item** in question.

8. ERDEF for Download - Client Requirements

Table 1 ERDEF for Download Client-side Requirements

Item	Feature / Application	Status	Requirement
OMA-ERDEF-DL-C-001	Download Client	M	OTA:MCF

9. ERDEF for Download - Server Requirements

The Download Enabler Release does not specify server requirements.

Appendix A. Change History

(Informative)

Type of Change	Date	Section	Description
Class 0	4-Nov-2002		The initial version of this document.