Enabler Release Definition for Download OTA

Approved Version 2.0.1 – 02 May 2011

Open Mobile Alliance
OMA-ERELD-DLOTA-V2_0_1-20110502-A

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1. Scope

The scope of this document is limited to the Enabler Release Definition of OMA Download over the Air 2.0 (DLOTA) according to OMA Release process and the Enabler Release specification baseline listed in section 6.

2. References

2.1 Normative References

[DLOTAv2-TS]   "Download Over the Air Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-DLOTA-V2_0. URL: http://www.openmobilealliance.org/

[IOPPROC]   "OMA Interoperability Policy and Process", Version 1.3, Open Mobile Alliance™, OMA-ORG-IOP_Process-V1_3. URL: http://www.openmobilealliance.org/

2.2 Informative References

[DLOTAv2-AD]   "Download Over the Air Architecture", Version 2.0, Open Mobile Alliance™, OMA-AD-DLOTA-V2_0. URL: http://www.openmobilealliance.org/

[DLOTAv2-DD]   Normative support file to [DLOTAv2-TS], containing the Download Descriptor XML schema, Open Mobile Alliance™, OMA-SUP-XSD_DD-V2_0. URL: http://www.openmobilealliance.org/

[DLOTAv2-DD_MIDPJAD]   OMA Download version 2.0 XML Schema for JAD MIDP Extension, Open Mobile Alliance™, OMA-SUP-XSD_dd_midpjad-V2_0. URL: http://www.openmobilealliance.org/

[DLOTAv2-RD]   "Download Over the Air Requirements", Version 2.0, Open Mobile Alliance™, OMA-RD-DLOTA-V2_0. 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" and "Introduction", are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 9 and 10 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [IOPPROC].

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

AD	Architecture Document
DD	Download Descriptor
DLOTA	Download Over the Air
ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
OCSP	Online Certificate Status Protocol
OMA	Open Mobile Alliance
OTA	Over the Air
RD	Requirement Document
TS	Technical Specification
XML	eXtensible Markup Language

4. Introduction

This document outlines the Enabler Release Definition for OMA Download OTA (DLOTA) version 2.0 and the respective conformance requirements for clients and servers implementing claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

OMA DLOTA version 1.0 provides a mechanism for user-initiated download of content, such as ring-tones, images, and applications. While OMA DLOTA provides much of the functionality needed to provide for a more reliable download solution than basic HTTP, other protocols exist in the mobile industries that provide functionality beyond that of OMA DLOTA version 1.0.

OMA DLOTA version 2.0 is an evolution of OMA DLOTA version 1.0. The purpose of OMA DLOTA version 2.0 is to add functionality that was missing from version 1.0. Backward compatibility can be achieved by also adding support for version 1.0 Download Descriptors to the Download User Agent.

This scope for the OMA DLOTA version 2.0 enabler release is to define the protocols, messages and mechanisms necessary to implement the OMA DLOTA in the mobile environment. It builds upon the OMA DLOTA version 1.0 enabler release, but extends it to address the specific requirements enumerated in the OMA DLOTA version Requirements document.

OMA DLOTA version 2.0 consists of a set of specifications developed by OMA to address the need for generic content download. For details of use cases and the requirements are specified in the OMA DLOTA version 2.0 requirements document [DLOTAv2-RD]. For a detailed discussion of the overall system architecture, please refer to [DLOTAv2-AD]. The [DLOTAv2-TS] specification defines the format and semantics of the download protocol, messages to enable generic content download.

5. Description of Differences from Previous Version

OMA Download OTA version 1.0 provides a mechanism for user-initiated download of content, such as ring-tones, images, and applications. While OMA Download OTA provides much of the functionality needed to provide for a more reliable download solution than basic HTTP, other protocols exist in the mobile industries that provide functionality beyond that of OMA Download OTA version 1.0.

Download OTA version 2.0 is an evolution of Download OTA version 1.0. The purpose of Download OTA version 2.0 is to add functionality that was missing from version 1.0. Backward compatibility can be achieved by also adding support for version 1.0 Download Descriptors to the Download User Agent.

6. Document Listing for DLOTA

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[DLOTAv2-RD]	OMA-RD-DLOTA-V2_0-20110329-A	Defines the requirements for the DLOTA version 2.0 specifications.
Architecture Document		
[DLOTAv2-AD]	OMA-AD-DLOTA-V2_0-20110329-A	Defines the overall architecture for DLOTA version 2.0 including informative descriptions of the technologies and their uses.
Technical Specifications		
[DLOTAv2-TS]	OMA-TS-DLOTA-V2_0_1-20110502-A	Defines the the format and semantics of the generic content download mechanism including Download Descriptor (DD).
Supporting Files		
[DLOTAv2-DD]	OMA-SUP-XSD_DD-V2_0-20110329-A	XSD Schema description for the elements of the download descriptor. Working file in schema directory: file: dd-v2_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[DLOTAv2-DD_MIDPJAD]	OMA-SUP-XSD_dd_midpjad-V2_0-20110329-A	XML Schema for JAD MIDP Extension. Working file in schema directory: file: dd_midpjad-V2_0.xsd path: http://www.openmobilealliance.org/tech/profiles/

Table 1: Listing of Documents in DLOTA Enabler

7. Minimum Functionality Description for DLOTA

This section is informative.

This section describes the functionality that is delivered with the OMA DLOTA version 2.0 specifications and their mandatory requirements.

The mandatory functionality of the OMA DLOTA version 2.0 clients defines the following use cases/functions as defined in [DLOTAv2-RD][DLOTAv2-AD].

- Basic Download

- Authentication of Trusted Entity and Content Integrity Check

- User Confirmation Prompt

The optional functionality of the OMA DLOTA version 2.0 clients defines the following use cases/functions as defined in [DLOTAv2-RD][DLOTAv2-AD].

- Combined Delivery

- Updating Media Objects

- Removing Media Objects

- Download of Compound Objects

- Download of Multiple Objects

- Download Timing Reservation

- Server Initiated Automatic Download

- Pre-Downloading Media Objects

- Download of Chunked Objects

- Support for Resumable Session (Pause and Resume Functionality)

- Progressive Download of Media Object

- Download from Multiple Servers

The mandatory functionality of the OMA DLOTA version 2.0 servers defines the following use cases/functions as defined in [DLOTAv2-RD][DLOTAv2-AD].

- Basic Download

- Authentication of Trusted Entity and Content Integrity Check

- Download of Compound Objects

- Download of Multiple Objects

The optional functionality of the OMA DLOTA version 2.0 servers defines the following use cases/functions as defined in [DLOTAv2-RD][DLOTAv2-AD].

- Combined Delivery

- Download Timing Reservation

- Download of Chunked Objects

- Updating Media Objects

- Removing Media Objects

- Server Initiated Automatic Download

- Pre-Downloading Media Objects

- Support for Resumable Session (Pause and Resume Functionality)

8. 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 [IOPPROC].

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 [IOPPROC] and it MUST accurately reflect the architectural requirement of the **Item** in question.

9. ERDEF for DLOTA - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-DLOTA-C-001	DLOTA 2.0 Client	M	DLOTAv2-TS:MCF

Table 2: ERDEF for DLOTA Client-side Requirements

10.ERDEF for DLOTA - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-DLOTA-S-001	DLOTA 2.0 Server	M	DLOTAv2-TS:MSF

Table 3: ERDEF for DLOTA Server-side Requirements

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
OMA-ERELD-DLOTA-V2_0-20110329-A	29 Mar 2011	Status changed to Approved by TP: OMA-TP-2011-0100-INP_Download_OTA_V2_0_ERP_for_Final_Approval
OMA-ERELD-DLOTA-V2_0_1-20110502-A	02 May 2011	