

# **Enabler Release Definition for Device Management Scheduling**

Candidate Version 1.0 – 10 Oct 2008

Open Mobile Alliance OMA-ERELD-DM\_Scheduling-V1\_0-20081010-C

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<sup>TM</sup> 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 <a href="http://www.openmobilealliance.org/ipr.html">http://www.openmobilealliance.org/ipr.html</a>. 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.

© 2008 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.	SCO	OPE	4
2.	REI	FERENCES	5
2	2.1	NORMATIVE REFERENCES	
_	2.2	Informative References	
3.	TEI	RMINOLOGY AND CONVENTIONS	6
_	3.1	CONVENTIONS	
_	3.2	DEFINITIONS	
_	3.3	ABBREVIATIONS	
		LEASE VERSION OVERVIEW	
	1.1	VERSION 1.0 FUNCTIONALITY	
5.		CUMENT LISTING FOR DM SCHEDULING V1.0	
6.	OM	INA CONSIDERATIONS	9
7.	CO	NFORMANCE REQUIREMENTS NOTATION DETAILS	10
8.	ERI	DEF FOR DM SCHEDULING V1.0 – CLIENT REQUIREMENTS	11
9.	ERI	DEF FOR DM SCHEDULING V1.0 – SERVER REQUIREMENTS	12
ΑP	PENI	DIX A. CHANGE HISTORY (INFORMATIVE)	13
P	<b>A.</b> 1	APPROVED VERSION HISTORY	13
A	1.2	DRAFT/CANDIDATE VERSION 1.0 HISTORY	13
T	abl	les	
Tal	ble 1:	: Listing of Documents in DM Scheduling V1.0 Enabler	8
Tal	ble 2:	ERDEF for DM Scheduling V1.0 Client-side Requirements	11
Tal	ble 3:	ERDEF for DM Scheduling V1.0 Server-side Requirements	12

# 1. Scope

The scope of this document is limited to the Enabler Release Definition of Device Management Scheduling V1.0 according to OMA Release process and the Enabler Release specification baseline listed in section 5.

### 2. References

### 2.1 Normative References

[DM] "Enabler Release Definition for OMA Device Management Specifications, Version 1.2". Open Mobile

Alliance™. OMA-ERELD-DM-V1\_2, <u>URL:http://www.openmobilealliance.org</u>

[DMPRO] "OMA Device Management Protocol, Version 1.2". Open Mobile Alliance™.

OMA-TS-DM\_Protocol-V1\_2. <u>URL:http://www.openmobilealliance.org</u>

[DMREP] "OMA Device Management Representation Protocol, Version 1.2".

Open Mobile Alliance<sup>TM</sup>. OMA-TS-DM RepPro-V1 2. <u>URL:http://www.openmobilealliance.org</u>

[DM Scheduling RD] "DM Scheduling Requirement Document", Version 1.0, Open Mobile Alliance<sup>TM</sup>, OMA-RD-DM-

Scheduling-V1\_0, <u>URL:http://www.openmobilealliance.org/</u>

[DM\_Scheduling\_AD] "DM Scheduling Architecture Document", Version 1.0, Open Mobile Alliance™, OMA-AD-DM-

Scheduling-V1 0, <u>URL:http://www.openmobilealliance.org/</u>

[DM\_Scheduling\_TS] "DM Scheduling Technical Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-DM-

Scheduling-V1 0, <u>URL:http://www.openmobilealliance.org/</u>

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997,

URL: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/

#### 2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version 2.6, Open Mobile Alliance<sup>TM</sup>,

OMA-ORG-Dictionary-V2\_6, <u>URL:http://www.openmobilealliance.org/</u>

## 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 [SCRRULES].

#### 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.

Management Objects A schema for configuration settings that an OMA DM client exposes to OMA DM servers for

management operations defined in the OMA DM Enabler [DM]

Minimum Functionality Description of the guaranteed features and functionality that will be enabled by implementing the

**Description** minimum mandatory part of the Enabler Release.

#### 3.3 Abbreviations

**DCMO** Device Capability Management Objects

**DM** Device Management

ERDEF Enabler Requirement Definition
ERELD Enabler Release Definition

**FUMO** Firmware Update Management Objects

OMA Open Mobile Alliance

OMNA Open Mobile Naming Authority

SCOMO Software Component Management Objects

### 4. Release Version Overview

The DM Scheduling Enabler V1.0 specifies the Device Management Scheduling Framework and corresponding Management Objects that can be layered on top of the OMA DM v1.2 to add seamlessly the common scheduling functionality to existing management infrastructure. The functionality, provided in the form of a building block, is fully interoperable with any other Management Objects Enablers, eg. FUMO, SCOMO, DCMO, DiagMon, allowing the management operations enabled by each of such Enablers to be performed in scheduled manners, based on either time or event, not necessarily requiring costly management sessions.

## 4.1 Version 1.0 Functionality

The minimum mandatory functionality for the DM Scheduling specification includes:

· Single-shot Time-based Scheduling

The DM Scheduling specification also specifies the following optional functionality:

- · Recurrent Scheduling
- · Event-based Scheduling
- · Trigger Filtering
- Localized User Interaction Functions
- Gating

# 5. Document Listing for DM Scheduling V1.0

This section is normative.

Doc Ref	Permanent Document Reference	Description	
Requirement Document			
[DM_Scheduling_RD]	OMA-RD-DM_Scheduling-V1_0-20081010-C	Requirement Document for DM Scheduling Enabler	
<b>Architecture Document</b>			
[DM_Scheduling_AD] OMA-AD-DM_Scheduling-V1_0-20080626-C		Architecture Document for DM Scheduling Enabler	
Technical Specifications			
[DM_Scheduling_TS]	OMA-TS-DM_Scheduling-V1_0-20080626-C	Specification for the Scheduling Framework and corresponding Management Objects.	
Supporting Files			
[DM_Scheduling_MO_DDF]	OMA-SUP-DM_Scheduling_MO_DDF-V1_0-20080626-C	DDF document for the DM Scheduling MO.  Working file in DTD directory: file: dm_scheduling_ddf-v1_0.dtd path: http://www.openmobilealliance.org/tech/dtd/	

Table 1: Listing of Documents in DM Scheduling V1.0 Enabler

## 6. OMNA Considerations

Management Object identifier: urn:oma:dm:scheduling:1.0

Protocol Compatibility: This object is compatible with OMA Device Management protocol specifications, version 1.2

## 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 DM Scheduling V1.0 – Client Requirements

This section is normative.

I mo been in normani e.			
Item	Feature / Application	Requirement	
OMA-ERDEF-DM_Scheduling-C-001-M	DM Scheduling Enabler Client/Agent	[DM_Scheduling_TS] AND [DM_Scheduling_MO_DDF] AND OMA-ERDEF-DM-C-001 [DM] AND DM-PRO-C-011 [DMPRO] AND DMREPPRO-PCE-C-007 [DMREP]	

Table 2: ERDEF for DM Scheduling V1.0 Client-side Requirements

# 9. ERDEF for DM Scheduling V1.0 – Server Requirements

This section is normative.

Item	Feature / Application	Requirement
OMA-ERDEF-DM_Scheduling-S-001-M	DM Scheduling Enabler Server	[DM_Scheduling_TS] AND [DM_Scheduling_MO_DDF] AND OMA-ERDEF-DM-S-001 [DM] AND DM-PRO-S-009 [DMPRO]

Table 3: ERDEF for DM Scheduling V1.0 Server-side Requirements

# Appendix A. Change History

# (Informative)

## A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version

## A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions:	28 Jan 2008		New Template
OMA-ERELD-DM-Sched-V1_0	01 Apr 2008	n/a	Initial Draft Version
	22 Apr 2008	5	Document listing updated
	06 Jun 2008	5	Document listing updated
Candidate Version:	26 Jun 2008	n/a	Status changed to Candidate by TP
OMA-ERELD-DM-Sched-V1_0			TP ref#: OMA-TP-2008-0239- INP_DM_Scheduling_V1_0_ERP_for_Candidate_Approval
Draft Version:	25 Sep 2008	5	Document listing updated
OMA-ERELD-DM-Sched-V1_0			
Candidate Version:	10 Oct 2008		Status changed to Candidate by TP
OMA-ERELD-DM-Sched-V1_0			TP ref#: OMA-TP-2008-0400R01- INP_DM_Scheduling_ERP_for_Notification