



Enabler Release Definition for Mobile Location Service (MLS)

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Open Mobile Alliance
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1. Scope

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

2. References

2.1 Normative References

- [23.271] “Functional stage 2 description of Location Services”, 3GPP TS 23.271 Release 10,
[URL:http://www.3gpp.org/ftp/Specs/latest/Rel-10/23_series/](http://www.3gpp.org/ftp/Specs/latest/Rel-10/23_series/)
- [IOPPROC] “OMA Interoperability Policy and Process”, Version 1.11, Open Mobile Alliance™, OMA-ORG-IOP-
Process-V1_11,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MLP 3.4] “Mobile Location Protocol”, Version 3.4, Open Mobile Alliance™, OMA-TS-MLP-V3_4,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MLP DTD] “MLP DTDs”, Version 3.4, Open Mobile Alliance™, OMA-SUP-DTD_MLP-V3_4,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MLP_COM DTD] “MLP Common DTDs”, Version 3.4, Open Mobile Alliance™, OMA-SUP-
DTD_MLP_ID_QOP_RES_SHAPE-V3_4,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MLS AD] “MLS Architecture Document”, Version 1.3, Open Mobile Alliance™, OMA-AD-MLS-V1_3,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [MLS RD] “MLS Requirements Document”, Version 1.3, Open Mobile Alliance™, OMA-RD-MLS-V1_3,
[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)
- [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)
- [RLP 1.2] “Roaming Location Protocol”, Version 1.2, Open Mobile Alliance™, OMA-TS-RLP-V1_2,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [RLP DTD] “RLP DTDs”, Version 1.2, Open Mobile Alliance™, OMA-SUP-DTD_RLP-V1_2,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [SUPL AD] “SUPL Architecture Document”, Version 3.0, Open Mobile Alliance™, OMA-AD-SUPL-V3_0,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [SUPL RD] “SUPL Requirements Document”, Version 3.0, Open Mobile Alliance™, OMA-RD-SUPL-V3_0,
[URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [TIA-881] 3GPP2 X.S0002-0, Version 2.0, May 2006: “MAP Location Service Enhancements”
[URL: http://www.3gpp2.org/Public_html/specs/](http://www.3gpp2.org/Public_html/specs/)

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version x.y, Open Mobile Alliance™,
OMA-ORG-Dictionary-Vx_y, [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 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.
MCF	Defined in [IOPPROC] as “All mandatory client features of the specification SCR”
Minimum Functionality Description	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.
Minimum Functionality Description	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.
MSF	Defined in [IOPPROC] as “All mandatory server features of the specification SCR”
SUPL Enabled Terminal (SET)	A device that is capable of communicating with a SUPL network. Examples of this could be a UE in UMTS, a MS in GSM or IS-95, or a PC over an IP-based transport.
SUPL Location Platform (SLP)	Entity responsible for SUPL Service Management and Position Determination. SLP contains the SLC and SPC Functions.

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELED	Enabler Release Definition
MLP	Mobile Location Protocol
MLS	Mobile Location Service
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
PCP	Privacy Checking Protocol
RLP	Roaming Location Protocol
SUPL	Secure User Plane Location

4. Release Version Overview

4.1 Version 1.0 Functionality

The OMA Mobile Location Service V1.0 (MLS V1.0) consists of a set of location specifications complying with 3GPP Release 6 LCS Specification. MLS 1.0 is primarily intended for use in a 3GPP environment. Compliance to other environments is not a requirement but the specification has in several cases been extended to not unnecessary prevent use in other environments. The set of specifications in MLS V1.0 consist of MLP V3.2 and RLP V1.0.

4.2 Version 1.1 Functionality

The OMA Mobile Location Service V1.1 (MLS V1.1) consists of a set of location specifications complying with 3GPP Release 6 LCS Specifications. In addition MLS V1.1 supports the functions in the OMA SUPL V1.0 enabler. MLS 1.1 is primarily intended for use in a 3GPP environment. Compliance to other environments is not a requirement but the specification has in several cases been extended to not unnecessary prevent use in other environments. The set of specifications in MLS V1.1 consist of MLP V3.2, RLP V1.0 and PCP V1.0.

4.3 Version 1.2 Functionality

The OMA Mobile Location Service V1.2 (MLS V1.2) consists of a set of location specifications:

- Supporting functions in MLS 1.1 except for Lid and Lpp reference points.
- Complying with 3GPP Release 7 LCS Specifications except for Lid and Lpp reference points that are no longer supported.
- Supporting the OMA SUPL V2.0 enabler, [SUPL AD].
- Supporting 3GPP2 “MAP Location Service Enhancements”, [TIA-881].

The set of specifications in MLS V1.2 consist of MLP V3.3 and RLP V1.1.

4.4 Version 1.3 Functionality

MLS V1.3 is an evolution of MLS V1.2. The functional additions are:

- support of 3GPP Release 10 LCS Specification
- support of OMA SUPL V3.0
- support of OMA LPPe V1.0
- improvements of trigger feature

The set of specifications in MLS V1.3 consist of MLP V3.4 and RLP V1.2.

5. Document Listing for MLS

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[MLS RD]	OMA-RD-MLS-V1_3-20150512-A	Requirement Document for MLS Enabler
Architecture Document		
[MLS AD]	OMA-AD-MLS-V1_3-20150512-A	Architecture Document for MLS Enabler
Technical Specifications		
[MLP 3.4]	OMA-TS-MLP-V3_4-20150512-A	Specification that defines the MLP 3.4 protocol
[RLP 1.2]	OMA-TS-RLP-V1_2-20150512-A	Specification that defines the RLP 1.2 protocol
Supporting Files		
[MLP_COM DTD]	OMA-SUP-DTD_MLP_ID_QOP_RES_SHAPE-V3_4-20150512-A	DTD for the messages and included elements common to MLP and RLP protocols. Working file in DTD directory: file: MLP_ID_QOP_RES_SHAPE_v3_4.dtd path: http://www.openmobilealliance.org/tech/dtd/
[MLP DTD]	OMA-SUP-DTD_MLP-V3_4-20150512-A	DTD for the messages and included elements of the MLP protocol. Working file in DTD directory: file: MLP_v3_4.dtd path: http://www.openmobilealliance.org/tech/dtd/
[RLP DTD]	OMA-SUP-DTD_RLP-V1_2-20150512-A	DTD for the messages and included elements of the RLP protocols. Working file in DTD directory: file: RLP_v1_2.dtd path: http://www.openmobilealliance.org/tech/dtd/

Table 1: Listing of Documents in MLS Enabler

6. OMNA Considerations

This release do not require any OMNA considerations

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 MLS - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-MLS-C-001	MLS Enabler	M	OMA-ERDEF-MLS-C-002 OR OMA-ERDEF-MLS-C-003 OR OMA-ERDEF-MLS-C-004
OMA-ERDEF-MLS-C-002	MLS Client	O	MLP 3.4: MCF
OMA-ERDEF-MLS-C-003	Requesting Location Server	O	RLP 1.2: MCF AND NOT (RLP-D-C-003 OR RLP-V-C-010 OR RLP-V-C-012)
OMA-ERDEF-MLS-C-004	Home Location Server	O	RLP 1.2: MCF

Informative Note: The requirement for Item OMA-ERDEF-MLS-C-003 exempt three privacy related SCR Items in RLP from being mandatory as they are not applicable for the Requesting Location Server.

Table 2: ERDEF for MLS Client-side Requirements

9. ERDEF for MLS - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-MLS-S-001	MLS Enabler	M	OMA-ERDEF-MLS-S-002 OR OMA-ERDEF-MLS-S-003 OR OMA-ERDEF-MLS-S-004
OMA-ERDEF-MLS-S-002	Requesting Location Server	O	MLP 3.4: MSF
OMA-ERDEF-MLS-S-003	Home Location Server	O	RPL 1.2: MSF AND NOT (RPL-D-S-003 OR RPL-V-S-010 OR RPL-V-S-012)
OMA-ERDEF-MLS-S-004	Visited Location Server	O	RPL 1.2: MSF

Informative Note: The requirement for Item OMA-ERDEF-MLS-S-003 exempt three privacy related SCR Items in RLP from being mandatory as they are not applicable for the Home Location Server.

Table 3: ERDEF for MLS Server-side Requirements

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-ERELED-MLS-V1_0-20110719-A	19 Jul 2011	First Approved version
OMA-ERELED-MLS-V1_1-20110719-A	19 Jul 2011	First Approved version
OMA-ERELED-MLS-V1_2-20110719-A	19 Jul 2011	First Approved version
OMA-ERELED-MLS-V1_2_1-20111117-A	17 Nov 2011	First Approved version
OMA-ERELED-MLS-V1_3-20150512-A	12 May 2015	Status changed to Approved by TP TP Ref # OMA-TP-2015-0081-INP_MLS_V1_3_ERP_for_final_Approval